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WASHINGTON, D. C.

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TRANSPORTATION.—RAILWAY STATISTICS.

GROUP V: KENTUCKY, TENNESSEE, MISSISSIPPI, ALABAMA, GEORGIA,
AND FLORIDA.

DEPARTMENT OF THE INTERIOR,
CENSUS OFFICE,

WASHINGTON, D. C., November 26, 1891.

The statistics in this bulletin furnish an exhibit of the operations of railways for the years 1880 to 1889, inclusive, for that portion of the territory of the United States designated as Group V. This group embraces the states of Kentucky, Tennessee, Mississippi, Alabama, Georgia, and Florida. These statistics were collected by Mr. W. W. MAYBERRY, special agent, under the direction of Mr. HENRY C. ADAMS, special agent in charge of the Division of Transportation.

A summary of several items of interest pertaining to the transportation business of that portion of the territory covered by this bulletin for the years 1880 and 1889 is herewith presented:

ITEMS.	1880.	1889.
Number of passengers carried	20,567,472	3,706,539
Number of passengers carried 1 mile	655,064,774	178,000,247
Tons of freight moved	38,189,735	10,086,274
Tons of freight moved 1 mile	4,157,197,389	965,356,287
Earnings from passenger service	\$20,024,232.84	\$8,780,853.96
Earnings from freight service	\$48,714,714.41	\$23,289,609.10
Total earnings and income	\$71,846,115.28	\$32,721,623.84
Total expenditures.....	\$69,526,909.88	\$30,809,777.84
Length in miles of all lines operated.....	16,532.50	8,273.88
Total number of employés	58,991	25,123
Number of cars in passenger service	2,009	944
Number of cars in freight service.....	61,657	18,187
Number of locomotives.....	2,369	1,112
Number of stations on all lines.....	2,778	1,021
Receipts per mile per passenger (cents).....	2.375	3.364
Receipts per mile per ton of freight (cents).....	1.087	1.923

The seven tables appended to this bulletin embrace the mileage, equipment and stations, employés, business done, earnings and income, expenditures, and operating expenses.



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TRANSPORTATION ON RAILWAYS IN GROUP V.

STATISTICS FOR THE 10 YEARS ENDED 1889.

BY HENRY C. ADAMS.

This is the fifth of a series of 10 bulletins proposed to be issued giving in statistical form the operations of railways in the United States for the years 1880 to 1889, inclusive. The first bulletin of the series, which contains certain information pertaining to them all, is Bulletin No. 46.

The territory covered by this bulletin embraces the states of Kentucky, Tennessee, Mississippi, Alabama, Georgia, and Florida. Immediately following the text will be found 7 tables, from which the summaries are derived. The titles of these tables are as follows:

Table I. Mileage.

Table II. Equipment and stations.

Table III. Employés.

Table IV. Business done.

Table V. Earnings and income.

Table VI. Expenditures.

Table VII. Operating expenses.

The statistics of railways in the group of states under consideration are especially interesting, because they show a rapid development in the industries of the people. Thus, railway mileage has increased during the 10 years ended 1889 99.11 per cent; railway employés have increased 134.81 per cent; the number of tons of freight moved 1 mile has increased 330.64 per cent, and the earnings from freight traffic 109.17 per cent. The number of passengers carried 1 mile has increased 278.65 per cent, and the earnings from passenger service 128.04 per cent. These figures indicate a rapid increase in the wealth and industry of the people living in that portion of the United States under consideration.

TABLE I—MILEAGE.—This table shows the length of line (single track), the length of operated line owned by the companies operating, the length of line leased by operating companies from subsidiary companies, and the length of line operated under trackage rights.

The length of line (single track) in 1880 was 8,265.88 miles and in 1889 16,458.53 miles, being an increase of 8,192.65 miles, or 99.11 per cent during the decade. The increase in mileage from year to year is also given in the table, from which it appears that the growth in railway mileage in the southern states has been constant and regular. In this respect the figures stand in marked contrast with corresponding figures for other portions of the country.

The table further shows that the process of consolidation through the leasing of weak lines has proceeded very rapidly during the last decade. Thus, in 1880 there were 856.06 miles of line leased for the purpose of operation, while in 1889 there were 3,812.21 miles leased, being an increase in leased mileage of 345.32 per cent.

TABLE II—EQUIPMENT AND STATIONS.—This table exhibits the equipment of railways as shown in the number of locomotives and cars used by the companies and the number of stations on their lines. An increase of business is shown by the fact that the number of locomotives employed has increased from 1,112 in 1880 to 2,369 in 1889, being an increase of 113.04 per cent, while passenger cars and freight cars have increased at the rate of 112.82 per cent and 239.02 per cent, respectively. The number of stations has increased from 1,021 in 1880 to 2,778 in 1889, being an increase of 172.09 per cent. This indicates that the country is being opened up to railway traffic in a most satisfactory manner.

TABLE III—EMPLOYÉS.—This table shows the number of men employed on railways for each of the 10 years ending 1889. The totals are also analyzed so as to show the number employed in maintenance of way and structure, maintenance of equipment, conducting transportation, and in general administration.

In order to throw light upon the degree of economy obtained in railway management the following summaries are inserted:

ASSIGNMENT OF EQUIPMENT TO LENGTH OF LINE OPERATED AND AMOUNT OF TRAFFIC CARRIED FOR 10 YEARS, 1880 TO 1889, INCLUSIVE.

ASSIGNMENTS.	1880.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	1889.	For all roads in the United States for 1889.
Engines per 100 miles of line	14	15	15	15	14	14	14	13	14	15	19
Freight engines per 100 miles of line.	8	9	9	9	9	8	8	8	9	9	10
Passenger engines per 100 miles of line.	3	4	4	4	4	4	4	4	4	4	5
Cars in freight service per 100 miles of line.	224	280	330	345	339	336	318	333	364	380	557
Cars in passenger service per 100 miles of line.	12	12	12	13	13	13	12	12	12	12	17
Tons freight carried per freight engine.	18,716	20,444	20,601	21,697	22,619	23,064	25,286	29,122	28,670	28,757	35,643
Ton miles per freight engine	1,755,193	2,582,521	2,541,910	2,528,010	2,611,321	2,682,196	3,000,685	3,391,516	3,352,428	3,173,433	4,538,786
Passengers carried per passenger engine.	14,947	24,330	23,430	28,121	29,892	29,579	28,397	34,964	36,589	33,717	58,444
Passenger miles per passenger engine.	779,280	1,247,891	1,140,011	1,139,772	1,247,608	1,355,644	1,132,458	1,267,446	1,239,135	1,080,965	1,430,105
Freight cars per 1,000,000 tons freight carried.	1,406	1,540	1,748	1,802	1,741	1,723	1,565	1,430	1,483	1,503	1,583
Passenger cars per 1,000,000 passengers carried.	226	143	135	114	109	110	123	99	88	91	54

The first point of interest disclosed by the above summary is that the railways in the district covered by this bulletin are not in a condition to carry on the business of transportation as economically as the average railway in the United States. This is seen by comparing the last two columns, one of which gives certain facts for the railways in Group V for the year 1889 and the other corresponding facts for all the railways in the United States. Should, however, the figures for 1889 be compared with the corresponding items for 1880, a marked development in the conditions which admit of economical administration will be observed. For example, the ton miles per freight engine in 1880 were 1,755,193, as against 3,173,433 in 1889, while the passenger miles per passenger engine in 1880 were 779,280, as against 1,080,965 in 1889. Other comparisons of the same sort are equally interesting.

The economy of labor attained by the railways under consideration may be observed by referring to the following summaries. The first presents the number of employés per 100 miles of line operated during the 10 years covered by the bulletin, and the second shows the efficiency of those railway employés engaged directly in conducting transportation.

NUMBER OF EMPLOYÉS PER 100 MILES OF LINE OPERATED FOR 10 YEARS, 1880 TO 1889, INCLUSIVE.

CLASSIFICATION.	1880.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	1889.
Total	328	405	392	389	376	353	365	356	375	373
Maintenance of way and structures	136	146	134	132	131	129	137	136	147	140
Maintenance of equipment	62	83	85	84	82	75	77	75	78	83
Conducting transportation	119	164	162	161	152	138	139	133	138	138
General administration	11	12	11	12	11	11	12	12	12	12

AMOUNT OF TRAFFIC FOR WHICH EMPLOYMENT OF 1 MAN ASSIGNED TO "CONDUCTING
TRANSPORTATION" IS NECESSARY.

NATURE OF TRAFFIC.	1880.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	1889.
Tons of freight carried.....	1,342	1,128	1,164	1,193	1,282	1,416	1,460	1,748	1,776	1,829
Tons of freight carried 1 mile.....	125,845	142,467	148,129	139,157	148,076	164,684	173,377	203,572	207,513	201,737
Passengers carried.....	433	524	553	695	774	846	791	948	1,014	986
Passengers carried 1 mile.....	22,603	26,840	26,977	28,146	32,318	38,790	31,046	34,379	34,382	31,641

By referring to the first of the foregoing summaries it appears that the number of employés per 100 miles of line has not increased in any very marked degree, it being 328 in 1880, as against 373 in 1889. It may be learned by referring to Bulletin No. 46 that the number of employés per 100 miles of line on railways in the New England states increased from 559 in 1880 to 761 in 1889. This comparison shows that railway development in the south calls for an extension of new line, while railway development in the New England states calls for increased facilities on lines already built. The economy of labor in transportation in the territory covered by this bulletin is, however, very marked, as is shown by the fact that the number of employés during the 10 years ending 1889 increased but 134.81 per cent, in order to provide for an increase in freight traffic of 330.64 per cent and in passenger traffic of 278.65 per cent. This increase in the economy of labor is also shown by the second of the foregoing summaries, from which it appears that in 1880 one man engaged in "conducting transportation" was necessary to effect 125,845 ton miles, while in 1889 one man was able to effect 201,737 ton miles. A comparison of the figures for passenger traffic points in the same direction.

Another fact must be referred to in connection with the figures presented in the summary giving the number of employés. It will be noted that the number of men engaged in maintenance of way and structure is about the same as the number of men engaged in "conducting transportation". This assignment of employés is peculiar to lines newly built. It is probable that as the territory under consideration develops and as the railways which it supports increase in age the proportion of men engaged in "conducting transportation" to the total number of men employed will gradually increase.

TABLE IV.—BUSINESS DONE.—This table shows the business done by railways making report and gives the number of tons of freight moved, the number of tons of freight moved 1 mile, the number of passengers carried, the number of passengers carried 1 mile, freight train mileage, passenger train mileage, and all other mileage. The remarkable increase in business done, shown by this table, has already been referred to. Thus, the increase in the number of tons of freight moved 1 mile in 1889 over the number moved in 1880 is 3,191,841.102, or 330.64 per cent. It will be further observed that the increase in the number of tons of freight moved 1 mile is greater than the increase in the number of tons of freight moved, which shows that long-haul freight traffic is coming to be of relatively more importance in the southern states.

The increase in the passenger traffic is equally as marked. In 1880 there were 3,766,539 passengers carried, as against 20,567,472 in 1889, being an increase of 446.06 per cent. The tendency in the case of passenger traffic is, however, toward an increased importance of local traffic. Thus, while the number of passengers carried has increased 446.06 per cent, the number of passengers carried 1 mile has increased but 278.65 per cent. This indicates a decrease in the average length of journey, which means that railways are being used more extensively by the people who live in the district under consideration.

The economy which is rendered possible by the increase in business done is clearly shown in Table IV. Thus, to provide for the increase of 330.64 per cent in the number of tons of freight moved 1 mile it was found necessary to increase freight-train mileage but 160.29 per cent, and to provide for the increase of 278.65 per cent in the number of passengers carried 1 mile it was found necessary to increase passenger train mileage but 184.62 per cent. This gain, however, is in part offset by the abnormal increase of 334.92 per cent in "all other train mileage". The principal part of "all other train mileage" is switching mileage.

TABLE V—EARNINGS AND INCOME.—This table exhibits the earnings and income of operating railways, classified as earnings from freight traffic, earnings from passenger traffic, and income from fixed investments and other sources. It also shows the per cent of operating expenses to earnings from operation.

In some cases the number of miles of line for which no reports could be secured was considerable, and in order to obviate any erroneous conclusions arising from this fact the following summary is inserted, which gives the earnings from freight and passenger service assigned to the mileage of operated line from which reports were obtained:

EARNINGS FROM FREIGHT AND PASSENGER SERVICE ASSIGNED TO MILEAGE OF OPERATED LINE.

EARNINGS.	1880.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	1889.
From freight service per mile of line.....	\$2,869.08	\$3,577.01	\$3,124.71	\$3,223.38	\$3,014.89	\$2,807.31	\$2,852.92	\$3,006.73	\$3,007.20	\$3,033.33
From passenger service per mile of line.....	1,081.73	1,448.25	1,328.56	1,406.18	1,422.46	1,387.73	1,242.23	1,294.74	1,269.84	1,246.85
Gross earnings from operation per mile of line...	3,950.81	5,025.26	4,453.27	4,629.56	4,437.35	4,195.04	4,095.15	4,301.47	4,276.04	4,280.18

From the above summary it appears that there has been an increase in the earnings from freight service per mile of line from \$2,869.08 in 1880 to \$3,033.33 in 1889, being an increase of \$164.25, or 5.72 per cent. The earnings from passenger service per mile of line increased from \$1,081.73 to \$1,246.85, being an increase of \$165.12, or 15.26 per cent. This increase does not seem to be very marked, but it must be remembered that during the years under consideration railway mileage has increased 99.11 per cent.

It is shown above that the conditions for a high degree of economy in railway management do not exist in the southern states, but that those conditions were gradually being developed. It is therefore no surprise to notice that, while the receipts per ton per mile for freight and per passenger per mile for passengers are higher than in other parts of the country, they have nevertheless fallen since 1880. That this is true may be learned from the following summary:

RECEIPTS PER MILE FROM FREIGHT AND PASSENGERS.

YEARS.	Receipts per mile per ton moved.	Receipts per mile per passenger carried. (a)
1880.....	Cents. 1.023	Cents. 3.364
1881.....	1.529	2.738
1882.....	1.345	2.529
1883.....	1.442	2.592
1884.....	1.340	2.413
1885.....	1.237	2.164
1886.....	1.184	2.400
1887.....	1.109	2.356
1888.....	1.048	2.226
1889.....	1.087	2.375

a 16.66 per cent is deducted from passenger earnings for mail and express.

From the above it appears that in the territory covered by this bulletin, as in other portions of the country, the public is receiving in the form of reduced passenger and freight rates a portion of the savings rendered possible by increased railway economy.

TABLE VI—EXPENDITURES.—This table shows the total expenditures incurred by operating companies, and classifies the same as operating expenses, interest on funded debt, rentals, taxes, and dividends. It also gives statements of the surpluses and deficits, as reported by operating companies.

TABLE VII—OPERATING EXPENSES.—In this table will be found an analysis of operating expenses according as they were incurred for maintenance of way and structures, maintenance of equipment, conducting transportation, and general expenses. The facts presented in Table VI, taken in connection with earnings and income as presented in Table V, permit the drawing of an

income account for each of the years covered by this bulletin. Such income accounts would show that the railways of Group V have been fairly prosperous throughout the decade.

Immediately following is an income account, covering the operations of the railways during the 10 years ended 1889. Thus, the gross earnings from operations for the 10 years are \$498,953,838.55, and other items are computed on a similar basis. In the column headed "per mile of line" the figures have been reduced so as to provide for comparison with annual income sheets. There is no other way in which the average operations of railways for a definite period may be so accurately stated.

INCOME ACCOUNT OF RAILROADS IN GROUP V FOR THE 10 YEARS, 1880 TO 1889.

ITEMS.	Amount.	Total.	Per mile of line reduced for comparison with annual earnings.
Gross earnings from operation.....	\$498,953,838.55		\$4,336.72
Less operating expenses.....	324,133,975.68		2,817.25
Income from operation.....		\$174,819,862.87	1,519.47
Income from other sources.....		16,594,331.60	144.23
Total income.....		191,414,194.47	1,663.70
Deductions from income:			
Interest on funded debt.....	96,804,172.86		841.39
Rentals.....	35,164,654.75		305.64
Taxes.....	11,317,279.66		98.30
Miscellaneous.....	7,549,312.16		65.62
Total deductions from income.....		150,835,419.43	1,311.01
Final net income.....		40,578,775.04	352.69
Dividends.....		21,154,263.92	183.86
Surplus from operations for the 10 years ended 1889.		19,424,511.12	168.83

Not only are the facts contained in the above summary interesting in themselves, but they permit an estimate of the value of railway property considered as productive property. Thus, accepting interest on funded debt, rentals, and dividends as measuring the returns to the owners of railway property, it appears that the average payment per mile of line on railway capital within the territory covered by Group V during the last 10 years is \$1,330.89, which, capitalized at 5 per cent, shows the value of railways in the district covered by this bulletin to be \$26,617.80 per mile of line. The average length of line operated for the 10 years covered by this bulletin is 11,505.32 miles, and the total value of railway property in the states of Kentucky, Tennessee, Mississippi, Alabama, Georgia, and Florida is \$306,246,306.70.

EXPENDITURES ASSIGNED TO MILE OF OPERATED LINE.

ITEMS.	1880.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	1889.
Operating expenses.....	\$2,398.75	\$3,218.54	\$2,912.60	\$2,892.65	\$2,824.60	\$2,750.08	\$2,667.12	\$2,765.14	\$2,902.85	\$2,860.80
Interest.....	780.58	864.53	999.65	915.06	962.91	808.25	739.89	762.27	800.94	803.11
Rentals.....	163.56	259.17	271.59	414.02	383.48	346.84	331.64	316.08	277.87	270.64
Taxes.....	47.57	76.03	95.16	94.80	92.27	110.54	109.01	105.24	108.34	109.83
Dividends.....	330.04	393.39	149.28	204.33	193.00	115.86	98.52	151.41	166.05	175.84
Total expenditures, including miscellaneous.	3,795.51	4,944.85	4,598.94	4,599.22	4,662.32	4,258.65	3,985.45	4,127.00	4,302.94	4,329.25

The interesting feature in the above summary is that the item of expenditure per mile of line has not been subject to very marked changes. The only exception is that of "dividends",

which show a marked decrease. Thus, in 1880 the payment for dividends per mile of line was \$330.04, while in 1889 it was \$175.84. In 1886 it fell as low as \$98.52. This fact, however, is not final, since the item of interest and rental should be placed side by side with the item of dividends, in order to determine how much owners of railway property receive from its operation. Rentals, it will be observed, have increased from \$163.56 to \$270.64 per mile of line. The fall in the payment of dividends per mile of line does not indicate that the owners of railway property are receiving less, but that the process of consolidation through leases is proceeding with marked rapidity.

TABLE I.—MILEAGE.

ANALYSIS OF MILEAGE.	1890.	1891.	1892.	1893.	1894.	1895.	1896.	1897.	1898.	1899.	FOR 9 YEARS ENDING 1899.
LENGTH OF LINE (SINGLE TRACK):											
Total mileage.....	8,205.88	8,634.86	9,721.68	10,700.83	11,703.18	12,606.97	13,357.33	14,161.60	15,425.31	16,458.63	8,192.65
Increased mileage.....		368.98	1,084.82	979.15	1,002.35	903.79	750.36	804.27	1,263.71	1,033.22	
Per cent of increase.....		4.46	12.59	10.07	9.37	7.72	6.95	6.02	8.92	6.70	
Decreased mileage.....											89.11
Per cent of decrease.....											
LINE OPERATED:											
Total mileage.....	8,273.88	8,642.86	9,775.91	10,753.06	11,758.75	12,667.86	13,491.27	14,225.63	15,508.44	16,532.50	8,258.62
Increased mileage.....		368.98	1,131.05	979.15	1,005.69	909.11	753.41	804.36	1,282.81	1,024.06	
Per cent of increase.....		4.46	13.09	10.02	9.36	7.73	5.95	5.99	9.02	6.80	
Decreased mileage.....											89.82
Per cent of decrease.....											
OPERATED LINE OWNED BY OPERATING COMPANIES:											
Total mileage.....	7,409.82	7,545.80	8,228.36	8,528.51	9,390.12	10,282.99	10,564.83	11,016.27	12,159.74	12,646.32	5,236.50
Increased mileage.....		135.68	682.56	300.15	861.61	892.87	281.84	451.44	1,143.47	486.58	
Per cent of increase.....		1.84	9.03	3.65	10.10	9.51	2.74	4.27	10.38	4.00	
Decreased mileage.....											70.67
Per cent of decrease.....											
OPERATED LINE LEASED OR OTHERWISE CONTROLLED BY OPERATING COMPANIES:											
Total mileage.....	856.06	1,089.06	1,493.32	2,172.32	2,313.06	2,323.98	2,792.50	3,145.33	3,265.57	3,812.21	2,956.15
Increased mileage.....		233.00	404.26	679.00	140.74	10.92	468.52	352.83	120.24	546.64	
Per cent of increase.....		27.22	37.12	45.47	6.48	0.47	20.16	12.62	3.82	16.74	
Decreased mileage.....											345.32
Per cent of decrease.....											
LINE OPERATED UNDER TRACKAGE RIGHTS:											
Total mileage.....	8.00	8.00	52.23	52.23	55.57	60.89	63.94	64.03	83.13	73.97	824.63
Increased mileage.....			44.23	44.23	3.34	5.22	3.05	0.00	10.10	11.00	63.97
Per cent of increase.....			552.88	552.88	6.39	9.57	5.01	0.14	23.83	23.83	
Decreased mileage.....											
Per cent of decrease.....											

TABLE II.—EQUIPMENT AND STATIONS.

ANALYSIS OF EQUIPMENT AND STATIONS.	1880.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	1889.	FOR 9 YEARS ENDING 1889.
LOCOMOTIVES											
Freight	1,112	1,132	1,336	1,458	1,560	1,643	1,749	1,871	2,140	2,369	
Passenger	691	708	822	872	933	989	1,039	1,122	1,205	1,426	
Switching	279	276	345	401	427	461	493	507	580	656	
Increase	142	148	169	185	200	193	217	242	265	287	
Per cent of increase	1.80	1.80	18.02	9.13	7.00	5.32	6.45	6.98	14.38	10.70	1.257
Decrease											113.04
Per cent of decrease											
CARS IN PASSENGER SERVICE											
Ordinary	944	961	1,087	1,259	1,395	1,497	1,613	1,751	1,859	2,009	
Sleeping	635	630	734	856	940	1,003	1,087	1,178	1,201	1,354	
Parlor	15	20	17	32	31	35	38	39	41	43	
Dining	1	1	2	4	4	4	4	4	5	10	
Refrigerator	172	184	184	199	219	248	263	285	302	324	
Postal	61	69	75	82	90	94	103	110	118	118	
Express	61	64	75	88	111	113	118	142	140	169	
Increase	61	17	136	172	136	102	138	102	108	160	
Per cent of increase	1.80	1.80	13.11	15.82	10.80	7.31	7.75	8.56	6.17	8.07	1.065
Decrease											112.82
Per cent of decrease											
CARS IN FREIGHT SERVICE											
Box	18,187	22,288	29,715	34,089	36,747	39,200	41,105	46,726	55,067	61,687	
Flat	9,661	12,096	15,577	17,070	17,982	19,410	20,436	22,072	24,987	27,856	
Stock	2,191	2,748	3,374	4,044	4,667	4,706	4,892	5,502	6,342	7,032	
Truck	1,479	1,923	2,602	3,389	4,077	4,980	5,993	7,063	8,167	9,312	
Trank	3,372	4,492	6,269	8,104	9,877	11,901	14,893	17,852	21,489	25,556	
Refrigerator	17	36	42	46	50	52	52	52	50	226	
Other	747	52	153	172	209	209	203	236	417	466	
Increase	747	601	688	734	998	1,012	1,093	1,226	2,405	2,669	
Per cent of increase	1.80	4.101	7.427	4.374	2.658	1.805	1.805	6.621	8.341	6.590	43.470
Decrease		22.55	33.32	14.72	7.80	6.95	4.59	13.67	17.85	11.87	239.02
Per cent of decrease											
CARS IN COMPANY'S SERVICE											
Increase	523	601	838	937	984	961	954	1,115	989	987	
Per cent of increase	14.91	78	39.43	11.81	5.02	47	23	16.88	176	88	474
Decrease						23	7		15.78	6.18	90.63
Per cent of decrease						2.34	0.73				
CARS CONTRIBUTED TO FAST-FREIGHT SERVICE											
Increase	99	107	156	183	183	152	138	138	138	138	
Per cent of increase	8	8.08	49	45.73							39
Decrease											39.39
Per cent of decrease											
STATIONS ON LINE											
Increase	1,021	1,273	1,457	1,610	1,803	1,945	2,118	2,345	2,584	2,778	
Per cent of increase	24.08	25.2	13.1	10.2	11.82	14.2	8.89	10.72	10.19	7.51	1.757
Decrease											172.09
Per cent of decrease											
MILEAGE OF OPERATED LINE FOR WHICH NO REPORT OF EQUIPMENT AND STATIONS WAS OBTAINABLE.											
Mileage	141.25	836.75	772.00	885.00	925.50	975.50	476.00	189.50	379.38	311.69	

TABLE III.—EMPLOYÉS.

ANALYSIS OF EMPLOYÉS.	FOR 9 YEARS ENDING 1889.									
	1880.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	1889.
EMPLOYÉS:										
Total.....	25,123	27,230	30,142	33,530	36,317	38,455	43,213	48,270	54,880	58,991
Increase.....		2,107	2,912	3,388	2,787	2,138	4,758	5,057	6,619	4,102
Per cent of increase.....		8.39	10.69	11.24	8.31	5.89	12.87	11.70	13.71	7.47
Decrease.....										
Per cent of decrease.....										
MAINTENANCE OF WAY AND STRUCTURE:										
Total.....	10,427	9,827	10,274	11,422	12,033	14,009	16,175	18,451	21,540	22,146
Increase.....			447	1,148	1,211	1,876	2,169	2,273	3,089	5,606
Per cent of increase.....			4.55	11.17	10.60	10.89	15.48	14.06	16.74	24.81
Decrease.....		600								
Per cent of decrease.....		5.75								
MAINTENANCE OF EQUIPMENT:										
Total.....	4,778	5,594	6,515	7,258	7,804	8,138	9,153	10,160	11,380	13,026
Increase.....		816	921	743	636	244	1,015	1,007	1,225	1,637
Per cent of increase.....		17.08	16.46	11.40	8.76	3.09	12.47	11.00	12.10	14.37
Decrease.....										
Per cent of decrease.....										
CONDUCTING TRANSPORTATION:										
Total.....	9,094	11,045	12,467	13,853	14,688	15,608	16,433	18,049	20,226	21,875
Increase.....		1,951	1,422	1,586	835	920	1,425	1,616	2,177	1,649
Per cent of increase.....		21.45	12.87	11.12	11.12	2.18	9.49	9.83	12.06	8.15
Decrease.....										
Per cent of decrease.....										
GENERAL ADMINISTRATION:										
Total.....	824	764	886	997	1,102	1,300	1,459	1,610	1,734	1,944
Increase.....			122	111	105	198	149	161	124	210
Per cent of increase.....			15.97	12.53	10.53	17.97	11.46	11.11	7.70	12.11
Decrease.....		60								
Per cent of decrease.....		7.28								

MILEAGE OF OPERATED LINE FOR WHICH NO REPORT OF EMPLOYÉS WAS OBTAINABLE.

Mileage.....	602.52	1,918.50	2,082.54	2,128.09	2,094.14	1,775.40	1,595.70	678.45	576.88	713.29
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TABLE V.—EARNINGS AND INCOME.

	1880.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	1889.	FOR 9 YEARS ENDING 1889.
ANALYSIS OF EARNINGS AND INCOME.											
EARNINGS FROM FREIGHT SERVICE:											
Total	\$23,289,609.10	\$27,172,376.24	\$28,556,426.56	\$31,394,941.01	\$32,421,933.42	\$33,948,147.43	\$36,596,051.78	\$41,496,144.59	\$44,884,173.61	\$48,714,714.41	\$48,714,714.41
Increase		3,882,767.14	1,384,600.82	2,833,514.15	1,026,992.41	1,526,214.01	2,647,904.95	4,900,092.81	3,388,029.02	3,890,540.80	3,890,540.80
Per cent of increase		16.67	5.09	9.94	3.27	4.71	7.80	13.39	8.16	8.53	8.53
Decrease											
Per cent of decrease											
EARNINGS FROM PASSENGER SERVICE:											
Total	8,780,853.96	11,001,423.97	12,141,579.50	13,695,871.22	15,297,053.18	16,781,596.71	15,894,908.87	17,868,765.82	18,953,094.03	20,024,232.84	11,243,378.88
Increase		2,220,570.01	1,140,155.53	1,553,291.72	1,601,181.66	1,484,543.53	1,933,856.95	1,993,866.95	1,084,268.21	1,071,198.81	1,071,198.81
Per cent of increase		25.29	10.36	12.80	11.89	9.70	12.14	12.14	6.07	5.65	5.65
Decrease											
Per cent of decrease											
GROSS EARNINGS FROM OPERATION:											
Total	32,070,463.06	38,173,800.21	40,698,006.36	45,090,812.23	47,718,986.60	50,729,744.14	52,530,960.65	59,364,910.41	63,837,207.64	68,735,947.25	36,608,484.19
Increase		6,103,337.15	2,524,206.15	4,392,865.37	2,628,174.37	3,010,757.54	1,801,216.51	6,833,949.76	4,472,297.23	4,901,739.61	4,901,739.61
Per cent of increase		19.03	6.61	10.79	5.53	6.31	3.55	13.01	7.53	7.68	7.68
Decrease											
Per cent of decrease											
INCOME FROM ALL OTHER SOURCES:											
Total	657,160.78	1,126,588.81	1,376,921.08	1,432,738.28	1,457,714.92	1,401,903.75	1,440,289.67	2,085,216.29	2,515,336.99	3,107,168.03	2,456,007.25
Increase		473,423.03	249,657.27	56,919.20	24,978.64	3,983.87	38,385.92	644,926.62	430,120.70	591,831.04	591,831.04
Per cent of increase		73.01	32.16	4.11	1.74	0.28	2.74	44.78	20.63	23.53	23.53
Decrease											
Per cent of decrease											
TOTAL EARNINGS AND INCOME:											
Total	32,727,623.84	39,300,389.02	42,074,227.44	46,523,550.51	49,176,701.52	52,131,647.89	53,971,250.32	61,450,126.70	66,352,544.63	71,843,115.28	39,124,491.44
Increase		6,578,766.18	2,773,843.42	4,449,321.07	2,652,132.01	2,954,946.37	1,839,692.43	7,478,876.38	4,902,417.93	5,493,570.55	5,493,570.55
Per cent of increase		30.11	7.06	10.57	5.70	6.01	3.58	13.39	7.98	8.28	8.28
Decrease											
Per cent of decrease											
PER CENT OF OPERATING EXPENSES TO EARNINGS:											
Per cent	60.72	64.05	65.40	62.48	63.66	65.56	65.13	64.28	67.87	67.05	6.33
Increase		3.33	1.35	2.92	1.18	1.90	0.43	0.85	3.59	0.82	0.82
Decrease											

MILEAGE OF OPERATED LINE FOR WHICH NO REPORT OF EARNINGS WAS OBTAINABLE.

Mileage	135.45	1,046.47	635.00	1,013.29	1,004.82	575.05	536.68	424.55	582.88	472.69	
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TABLE VI.—EXPENDITURES.

ANALYSIS OF EXPENDITURES.	1880.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	1889.	FOR 9 YEARS ENDING 1889.
OPERATING EXPENSES:											
Total	\$19,471,669.89	\$24,449,300.29	\$26,617,982.04	\$28,173,779.73	\$30,375,527.99	\$33,256,082.38	\$34,212,704.24	\$38,161,305.97	\$49,326,662.51	\$46,088,378.91	\$26,616,709.02
Increase		4,977,630.40	2,168,681.75	1,553,779.73	2,201,766.23	2,880,554.39	986,621.86	3,949,201.43	5,167,756.84	2,761,716.40	
Per cent of increase		25.56	8.87	5.84	7.81	9.48	2.88	11.54	13.53	6.37	
Decrease											
Per cent of decrease											
INTEREST ON FUNDED DEBT:											
Total	6,396,280.05	6,567,204.53	9,135,715.36	8,912,450.56	10,355,020.51	10,499,596.89	9,491,010.39	10,320,156.98	12,068,867.09	12,897,789.50	6,561,500.45
Increase		231,014.48	2,598,420.83	1,442,569.55	1,442,569.55	144,576.38	1,008,586.50	1,029,146.99	1,568,710.11	808,913.41	
Per cent of increase		3.65		16.19	1.40	1.40		10.84	14.91	6.69	
Decrease											
Per cent of decrease											
RENTALS:											
Total	1,327,724.59	1,908,771.52	2,482,051.58	4,082,469.16	4,123,896.34	4,194,282.49	4,254,109.83	4,287,682.92	4,147,295.15	4,246,421.70	3,018,687.11
Increase		641,046.93	513,280.06	1,550,417.38	91,427.18	70,396.15	39,807.34	38,562.56	1,617,046.96	199,126.55	
Per cent of increase		48.28	26.07	62.37	2.27	1.71	1.83	0.79	39.46	4.80	
Decrease											
Per cent of decrease											
TAXES:											
Total	386,164.90	577,532.75	869,657.50	923,375.37	992,298.60	1,336,728.93	1,398,304.41	1,452,388.95	1,617,046.96	1,763,801.29	1,377,636.29
Increase		191,367.85	282,124.75	53,717.87	68,923.23	344,430.33	61,575.48	54,064.04	164,673.01	146,754.33	
Per cent of increase		49.56	58.88	6.38	7.46	34.71	4.61	3.87	11.34	9.08	
Decrease											
Per cent of decrease											
DIVIDENDS:											
Total	2,679,048.81	2,988,969.00	1,364,262.35	1,940,165.19	2,075,540.71	1,401,129.72	1,263,742.32	2,089,557.72	2,478,417.85	2,824,020.05	144,981.24
Increase		309,320.19	1,624,106.65	623,002.84	86,376.52	674,410.99	137,387.20	829,815.20	388,860.13	345,612.20	
Per cent of increase		11.55	54.35	45.88	4.29	48.11	10.75	66.35	18.61	13.94	
Decrease											
Per cent of decrease											
TOTAL EXPENDITURES, INCLUDING MISCELLANEOUS:											
Total	30,809,777.84	37,563,041.77	41,206,781.88	44,795,309.05	48,417,690.87	51,498,938.95	51,123,083.20	56,957,816.22	64,222,769.37	69,526,903.88	38,717,132.04
Increase		6,753,263.93	3,643,740.11	3,588,527.17	3,622,321.82	3,081,308.08	375,256.75	5,894,132.02	7,265,933.15	5,303,140.51	
Per cent of increase		21.92	9.70	8.71	8.09	6.36	0.73	11.41	12.76	8.26	
Decrease											
Per cent of decrease											
Surplus	1,911,846.00	1,737,342.25	867,545.56	1,728,239.46	789,070.65	682,708.94	2,847,867.12	4,492,310.48	2,128,775.26	2,319,595.40	19,424,511.12
Deficit											

MILEAGE OF OPERATED LINE FOR WHICH NO REPORT OF EXPENDITURES WAS OBTAINABLE.

Mileage	156.45	1,046.47	635.00	1,013.30	1,004.82	575.08	593.68	424.55	582.88	472.69	
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TABLE VII.—OPERATING EXPENSES.

	1880.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	1889.	FOR 9 YEARS ENDING 1889.
ANALYSIS OF OPERATING EXPENSES.											
MAINTENANCE OF WAY AND STRUCTURE:											
Total	\$5,903,065.12	\$7,280,756.80	\$7,588,675.48	\$7,555,121.18	\$7,880,364.10	\$8,002,952.08	\$8,285,900.31	\$9,225,106.41	\$9,889,042.26	\$10,416,480.69	\$4,513,415.57
Increase		1,386,681.68	288,318.68	384,242.69	262,987.23	113,587.98	262,987.23	969,197.10	664,835.85	536,658.43	76.46
Per cent of increase		23.49	4.10	4.42	3.54	1.44	3.54	11.33	7.21	5.32	
Decrease											
Per cent of decrease											
MAINTENANCE OF EQUIPMENT:											
Total	4,444,879.08	6,041,662.36	5,920,140.05	6,532,900.73	6,776,886.56	7,617,685.85	7,801,929.71	8,092,529.29	9,973,032.03	10,466,146.95	6,021,267.92
Increase		1,596,782.33		613,550.68	248,495.83	846,709.20	184,243.86	1,161,603.58	1,009,493.74	498,113.82	135.47
Per cent of increase		35.92		10.36	3.73	12.41	2.42	14.89	11.26	4.94	
Decrease			121,522.31								
Per cent of decrease			2.01								
CONDUCTING TRANSPORTATION:											
Total	7,084,574.02	9,067,578.04	10,568,124.34	11,531,541.66	12,534,618.23	14,443,784.54	14,831,783.71	16,504,784.72	19,199,731.58	20,500,312.13	13,555,738.11
Increase		2,083,004.02	1,513,548.30	968,417.32	1,383,076.67	1,569,166.21	387,989.17	1,672,931.01	2,624,498.86	1,460,580.50	7.64
Per cent of increase		28.90	16.71	9.15	11.97	11.61	2.69	11.28	15.90	7.64	
Decrease											
Per cent of decrease											
GENERAL EXPENSES:											
Total	2,089,151.72	2,050,303.69	2,526,042.17	2,533,708.19	2,774,652.00	3,191,689.91	3,203,081.51	3,468,525.95	4,232,055.64	4,615,439.14	2,526,287.42
Increase			475,739.08	7,666.02	240,960.81	417,000.91	101,421.99	178,443.74	865,430.39	281,483.50	120.92
Per cent of increase			23.20	0.30	9.51	15.08	3.18	5.35	24.36	6.49	
Decrease		38,848.63									
Per cent of decrease		1.86									
TOTAL OPERATING EXPENSES:											
Total	19,471,669.89	24,449,300.29	26,617,962.04	28,173,761.75	30,375,627.98	33,256,082.38	34,212,704.24	38,161,905.67	43,326,662.51	46,088,378.91	26,616,709.02
Increase		4,977,630.40	2,108,681.75	1,555,779.73	2,201,766.23	2,880,551.39	956,621.86	3,949,201.43	5,164,786.84	2,761,716.40	6.57
Per cent of increase		25.56	8.87	5.84	7.81	9.48	2.88	11.64	13.53	6.57	
Decrease											
Per cent of decrease											

MILEAGE OF OPERATED LINE FOR WHICH NO REPORT OF OPERATING EXPENSES WAS OBTAINABLE.

Mileage	156.45	1,046.47	685.00	1,013.30	1,004.82	575.08	593.68	424.55	582.88	472.69	
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CENSUS BULLETIN.

No. 152.

WASHINGTON, D. C.

December 14, 1891.

STATISTICS OF CHURCHES.

DEPARTMENT OF THE INTERIOR,

CENSUS OFFICE,

WASHINGTON, D. C., December 2, 1891.

This is the fifth bulletin issued with statistics of religious bodies. It contains the returns for the entire Lutheran communion in the United States, and has been prepared by HENRY K. CARROLL, LL. D., special agent in charge of the Division of Church Statistics of the Census Office.

The statistics given herewith, which represent 4 general bodies of Lutherans, 12 independent synods, and many independent congregations, and are the result of most painstaking and exhaustive inquiry, and show how the Lutheran communion is divided, what synods are connected with each general body, what synods are independent, and also the division of communicants according to language or nationality. The tabulation gives results both by synods and by states.

The following table gives a summary view of the general bodies, the independent synods, and the independent congregations:

SUMMARY OF LUTHERAN BODIES.

SYNODS, BODIES, ETC.	Organiza- tions.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church prop- erty.	Communi- cants or members.
Total	8,427	6,559 ⁶ / ₉	2,159,290	1,290	102,657	\$31,218,231	1,199,511
General Synod	1,424	1,322 ⁵ / ₁₂	471,819	72	10,730	8,919,170	161,640
United Synod in the South	414	379 ¹ / ₂	138,453	20	4,225	1,111,065	37,467
General Council	1,095	1,512 ⁷ / ₁₂	577,190	367	30,904	10,496,786	317,116
Synodical Conference	1,934	1,531	443,185	67	4,362	7,801,313	257,153
Independent Lutheran bodies:							
Joint Synod of Ohio, etc	421	443	149,338	10	785	1,639,087	69,566
Buffalo Synod	27	25	5,793	2	275	81,416	4,242
Hauge's Synod	175	99 ³ / ₄	30,500	75	4,436	214,396	14,730
Norwegian Church in America	489	275 ¹ / ₂	78,988	182	12,115	806,825	55,452
Michigan Synod	65	53	14,613	12	550	161,770	11,482
Danish Church in America	131	74 ¹ / ₂	14,760	42	2,175	129,700	10,181
German Augsburg Synod	23	23	7,560	1		111,060	7,010
Danish Church Association	50	33	5,700	15	480	44,775	3,493
Icelandic Synod	13	4	1,300	9	750	7,200	1,001
Immanuel Synod	21	19	5,300			61,200	5,580
Suomal Synod	11	8 ¹ / ₂	1,915			12,898	1,385
United Norwegian Church of America	1,122	668 ¹ / ₂	185,242	393	29,185	1,564,455	119,972
Independent congregations	112	87	27,634	14	1,685	539,125	18,096

From this table it appears that the total number of Lutheran communicants is 1,199,514, connected with 8,427 organizations, with church property valued at \$34,218,234. The largest number of communicants embraced in any one state is found in Pennsylvania, which has 219,069. Wisconsin comes next, with 149,071, and Minnesota third, with 143,503. All the states and territories have communicants except Nevada, the Indian territory, and Oklahoma.

A table giving approximately the division of communicants according to language or nationality shows that 198,997 belong to synods using the English language wholly, 232,512 to synods which are partly English and partly German, and 454,005 to synods which are wholly or chiefly German. It also shows that 190,154 are of Norwegian, 88,700 of Swedish, 13,674 of Danish, 1,991 of Icelandic, and 1,385 of Finnish nationality.

Full historical and explanatory introductions are given first for the whole communion, and secondly for each of the general bodies and each of the independent synods.

A handwritten signature in cursive script, reading "Robert D. Torleson". The signature is written in dark ink and is centered on the page.

Superintendent of Census.

STATISTICS OF CHURCHES.

BY HENRY K. CARROLL.

The statistics given in this bulletin embrace the entire Lutheran communion in the United States, including the General Synod, the United Synod in the South, the General Council, the Synodical Conference, 12 independent synods, and a number of independent congregations. The returns for one or two of the independent synods and for the independent congregations are subject to revision.

LUTHERANS ACCORDING TO LANGUAGE.

In the following table Lutheran synods are arranged as nearly as possible according to language. It will be observed that 5 languages are represented, if the Norwegian be considered as differing from the Danish. Synods having 198,997 communicants are wholly English; synods having 232,512 communicants are partly English and partly German, and synods having 454,005 communicants are German almost wholly. Besides these, there are 190,154 Norwegians, 88,700 Swedes, 13,674 Danes, 1,991 Icelanders, and 1,385 Finns. It should be understood that some of these divisions are only given approximately.

STATISTICS BY LANGUAGES.

ENGLISH.			ENGLISH—CONTINUED.		
SYNODS, ETC.	Number of organizations.	Communicants or members.	SYNODS, ETC.	Number of organizations.	Communicants or members.
GENERAL SYNOD:			GENERAL COUNCIL:		
Allegheny	138	12,806	English Synod of Ohio	61	8,271
Central Illinois	25	2,187	Indiana	31	3,058
Central Pennsylvania	83	8,680	Pittsburg	21	2,266
East Ohio	75	6,360	Total	119	14,297
East Pennsylvania	109	17,994	SYNODICAL CONFERENCE:		
Frankean	20	2,147	English Conference of Missouri	18	1,192
Hartwick	34	4,578	INDEPENDENT SYNODS:		
Iowa	25	1,727	Joint Synod of Ohio, etc.	29	2,287
Kansas	47	2,924	SUMMARY.		
Maryland	101	18,606	General Synod	1,236	143,764
Miami	45	4,604	United Synod in the South	414	37,457
Middle Tennessee	11	749	General Council	119	14,297
North Illinois	46	3,147	Synodical Conference	18	1,192
North Indiana	67	4,650	Joint Synod of Ohio	29	2,287
Olive Branch	37	3,577	Total	1,816	198,997
Pittsburg	81	7,740	GERMAN.		
South Illinois	19	1,234	GENERAL SYNOD:		
Susquehanna	59	10,643	Nebraska	5	205
West Pennsylvania	131	21,675	Warburg	29	3,320
Wittenberg	74	7,836	Total	34	3,525
Total	1,236	143,764	GENERAL COUNCIL:		
UNITED SYNOD IN THE SOUTH:			Ministerium of New York	1	600
Alpha	5	94	Texas	39	6,643
Georgia	17	1,535	German Synod of Iowa	435	40,662
Holston	27	2,120	Total	475	47,905
Mississippi	11	533			
North Carolina	56	6,163			
South Carolina	61	7,013			
Southwest Virginia	65	4,379			
Tennessee	107	10,086			
Virginia	65	5,525			
Total	414	37,457			

STATISTICS BY LANGUAGES—CONTINUED.

GERMAN—CONTINUED.			GERMAN-ENGLISH—CONTINUED.		
SYNODS, ETC.	Number of organizations.	Communicants or members.	SYNODS, ETC.	Number of organizations.	Communicants or members.
SYNODICAL CONFERENCE:			SUMMARY.		
Minnesota.....	90	12,655	General Synod.....	154	17,351
Missouri, Ohio, and other states.....	1,589	293,211	General Council.....	713	166,243
Wisconsin.....	237	50,095	Independent synods.....	311	48,918
Total.....	1,916	355,961	Total.....	1,178	232,512
INDEPENDENT SYNODS:			SWEDISH.		
Joint Synod of Ohio, etc.....	81	18,300	GENERAL COUNCIL:		
Buffalo.....	27	4,242	Scandinavian Augustana.....	688	88,700
Michigan.....	65	11,482	NORWEGIAN.		
Augsburg.....	23	7,010	INDEPENDENT SYNODS:		
Immanuel.....	21	5,580	Hauge's Synod.....	175	14,730
Total.....	217	46,614	Norwegian.....	489	65,452
SUMMARY.			United Norwegian.....	1,122	119,972
General Synod.....	34	3,525	Total.....	1,786	190,154
General Council.....	475	47,905	DANISH.		
Synodical Conference.....	1,916	355,961	INDEPENDENT SYNODS:		
Independent synods.....	217	46,614	Danish Church.....	131	10,181
Total.....	2,642	454,005	Danish Association.....	50	3,493
GERMAN-ENGLISH.			Total.....	181	13,674
GENERAL SYNOD:			ICELANDIC.		
Maryland.....	7	1,258	INDEPENDENT SYNODS:		
Nebraska.....	97	4,859	Icelandic.....	13	1,991
New York and New Jersey.....	50	11,234	FINNISH.		
Total.....	154	17,351	INDEPENDENT SYNODS:		
GENERAL COUNCIL:			Suomal.....	11	1,385
Ministerium of New York.....	114	41,429	GERMAN-ENGLISH—CONTINUED.		
Ministerium of Pennsylvania.....	456	107,025	INDEPENDENT SYNODS:		
Pittsburg.....	143	17,789	Joint Synod of Ohio, etc.....		
Total.....	713	166,243	311		
INDEPENDENT SYNODS:			48,918		

SUMMARY BY LANGUAGES.

LANGUAGES.	Number of organizations.	Communicants or members.
Total.....	8,315	1,181,418
English.....	1,810	198,997
German.....	2,642	454,005
German-English.....	1,178	232,512
Swedish.....	688	88,700
Norwegian.....	1,786	190,154
Danish.....	181	13,674
Icelandic.....	13	1,991
Finnish.....	11	1,385

THE EVANGELICAL LUTHERAN BODIES.

The earliest Lutherans in America came from Holland to Manhattan island in 1623 with the first Dutch colony. For some years they had great difficulty in establishing worship of their own, the Dutch authorities, ecclesiastical and civil, having received instructions "to encourage no other doctrine in the New Netherlands than the true Reformed" and "to allure the Lutherans to the Dutch churches and matriculate them in the Public Reformed religion". A Lutheran pastor, the Rev. John Ernest Goetwater, was sent to this country in 1657 by the Lutheran Consistory of Amsterdam to minister to two Lutheran congregations, one at New York, the other at Albany. He was not allowed, however, to enter upon his ministrations, but was sent back to Holland by representatives of the Reformed faith. When the English took possession of New York the Lutherans were allowed full liberty of worship.

The Lutheran faith was also established on the banks of the Delaware by a Swedish colony, who erected the first Lutheran church in America near Lewes in 1638. Swedish immigration was soon checked, and the large Lutheran influx from Germany did not begin until early in the eighteenth century, the first German congregation of Lutherans having been organized at about that time in Montgomery county, Pennsylvania, with the Rev. Justus Falckner, who was ordained in this country by the Swedes, as its first pastor. In 1710 a large number of exiled Palatines settled in New York and Pennsylvania, and in 1734 a colony of Salzburger planted the Lutheran faith in Georgia.

While immigration brought many Lutherans to this country, they were in a scattered and unorganized condition until the arrival of the Rev. Henry M. Muhlenburg, who drew them closer together, formed them into congregations, and inspired them with new life. In 1748 he, with six other ministers and lay delegates from congregations, organized the first Lutheran synod in this country, the Synod or Ministerium of Pennsylvania. In 1786 the second synod, the Ministerium of New York, was formed.

The recent extraordinary growth of the Lutheran communion in this country is due in part to immigration from Lutheran countries. A large proportion of Lutherans are either German immigrants or the offspring of German immigrants. There are also large bodies of Swedish, Norwegian, and Danish Lutherans, with a number from Finland and other European countries.

The system of faith held by all Lutherans is set forth in the Augsburg Confession and in a number of other symbols, known as Luther's Catechisms, the Apology of the Augsburg Confession, the Smalcald Articles, and the Formula of Concord. The cardinal doctrine of the system is that of justification by faith alone. The ordinances of baptism and the Lord's Supper are held by Lutherans to be not mere signs or memorials, but channels of grace. Their view of the Lord's Supper is peculiar. They believe that "in the Holy Supper there are present with the elements and are received sacramentally and supernaturally the body and blood of the Lord Jesus Christ", but reject both transubstantiation as held by the Roman Catholic Church, and consubstantiation as attributed by some writers to the Lutheran Church. They observe the various festivals of the christian year, and have a liturgical form of worship.

In polity, while the sovereignty of the individual congregation, which includes the office of preaching the Gospel and administering the sacraments, is recognized, in the synodical system as it prevails a measure of judicial and executive authority is conferred upon the individual synods by individual congregations. General bodies, such as the General Synod, General Council, etc., are formed by the union of a number of synods and have chiefly advisory powers. Synods may withdraw from the General Synod, General Council, and other general bodies and may afterward rejoin the body they withdrew from or join another body, or take an independent position.

THE GENERAL SYNOD.

This is the oldest general body of Lutherans. It was organized in 1820 by representatives of the Ministerium of Pennsylvania, the oldest synod, the Ministerium of New York; the next oldest, the Synod of North Carolina; the third oldest, the Synod of Maryland and Virginia. The General Synod was the only general body until the civil war cut off its southern synods and led to the organization of the General Synod, South, now known as the United Synod in the South. It never had, however, the adherence of all the synods. One withdrew and afterward joined again; some held aloof from it for many years, so that from the first there has scarcely been a period in which there have not been synods in an independent attitude.

The chief cause of the changes which synods have made in their attachments to the general bodies, and also of the organization of the General Council and Synodical Conference, has been differences concerning the acceptance and interpretation of the doctrinal symbols. There have been no secessions or divisions among Lutherans on account of questions arising in church government, except several instances among the Germans, when charges of hierarchical tendencies were broached. The reception in 1864 of the Franckean Synod by the General Synod led to a division on confessional grounds. It was objected by many that the Franckean Synod had not announced its acceptance of the Augsburg Confession and it was thought to be doctrinally unsound. It was contended in behalf of those who adhered to the General Synod that the Franckean Synod had accepted the Augsburg Confession in accepting the constitution of the General Synod, in which is set forth the confessional basis. The minority, including the representatives of the Ministerium of Pennsylvania, presented a protest against the admission of the Franckean Synod, and the representatives of the Ministerium withdrew. Two years later, however, at the next meeting of the General Synod, delegates from the Ministerium were in attendance, but not being allowed to participate in the election of officers, on the ground that the Ministerium must be considered as "in a state of practical withdrawal from the governing functions of the General Synod", they retired, and their example was subsequently followed by the Pittsburg, English Ohio, Minnesota, and Texas synods, and the Ministerium soon after led in a movement for the formation of another general body.

The following is the confessional basis of the General Synod:

We receive and hold with the Evangelical Lutheran Church of our fathers the Word of God, as contained in the canonical scriptures of the Old and New Testaments, as the only infallible rule of faith and practice, and the Augsburg Confession as a correct exhibition of the fundamental doctrines of the Divine Word and of the faith of our Church founded upon that Word.

The General Synod Lutherans affiliate more readily with other Evangelical denominations than the Lutherans attached to the General Council, the Synodical Conference, or the Ohio Synod. They do not refuse to exchange pulpits with ministers of Evangelical Churches, as do their stricter brethren, who condemn these relations under the general term "unionism".

The General Synod has connected with it 23 synods, the oldest of which, that of Maryland, was organized in 1820, and the newest, that of Middle Tennessee, in 1878. It is represented in 25 states and in the District of Columbia and territory of New Mexico. Nearly one-half of its communicants, or 78,938, are to be found in the state of Pennsylvania. Three other states have over 10,000 each, viz: Ohio, 18,437; Maryland, 17,288, and New York, 15,611. Of its 1,424 organizations, Pennsylvania has 596. There are 1,322 edifices, valued at \$8,919,170. This indicates an average value for each edifice of \$6,745, which is extraordinary. The average seating capacity of the edifices is 357. Only 72 of the 1,424 organizations meet in other than church buildings.

The largest synods are those of West Pennsylvania, 21,575 communicants; Maryland, 19,864, and East Pennsylvania, 17,994. The boundaries of Lutheran synods are very irregular. Those of the synods belonging to the General Synod are more regular than those of any of the other Lutheran general bodies, but it will be noticed that there are but 5 of the 23 which do not cross one or more state lines.

I.—GENERAL SYNOD—CONTINUED.

COUNTIES.	Number of organi- zations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.	COUNTIES.	Number of organi- zations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.
MINNESOTA:								New York—Con'd							
Olmsted	1	1	300			\$1,200	26	Onondaga	5	5	2,350			\$99,000	1,939
MISSOURI:								Oswego	2	2	700			26,000	625
Atchison	2	2	425			3,300	115	Otsego	4	4	1,200			9,000	200
Bollinger	3	2	700	h1	50	1,250	276	Rensselaer	6	6	2,800			57,500	936
Buchanan	2	2	550			8,500	220	Rockland	1	1	250			2,000	60
Jackson	2	2	850			52,000	363	Saint Lawrence	3	2	450			3,700	59
Macon	1	1	200			1,700	100	Schoharie	14	17 1/4	6,325			106,000	1,868
Perry	3	3	700			1,100	102	Steuben	1	1	300			2,500	76
Saint Louis	1	1	700			65,000	400	Ulster	2	3	900			13,000	322
Total	14	13	4,125	1	50	132,850	1,576	Total	95	100 1/4	36,925			1,224,700	15,611
NEBRASKA:								Ohio:							
Adams	3	2	300	ph1		2,750	195	Allen	2	2	525			4,000	73
Burt	3	3	575			4,700	70	Ashland	9	8	2,900	h1	100	53,550	888
Butler	1	1	300			4,000	40	Auglaize	2	2	500			6,000	308
Cass	2	2		sh2	135		35	Butler	1	1	200			1,200	97
Cheyenne	2	1	225	sh1	60	6,350	52	Champaign	3	3	1,250			19,000	314
Colfax	1	1	200			1,000	25	Clark	7	7	3,100			79,100	1,466
Cuming	1	1	300			4,500	89	Columbiana	3	3	800			5,500	317
Dakota	5	4	750	sh1	75	5,900	191	Crawford	10	10	3,250			52,200	1,137
Dixon	3	2	350	sh1	75	2,500	117	Delaware	1	1	500			18,000	210
Dodge	5	3	580	sh1, h1, 2	75	5,100	315	Fairfield	4	4	1,050			13,300	272
Douglas	4	4	1,200			167,400	300	Greene	2	2	600			6,000	238
Fillmore	2	1	120	ph1			85	Guernsey	4	4	1,300			3,800	172
Gage	2	2	550			8,000	115	Hamilton	3	2	850	h1	200	59,000	462
Hall	2	2	600			23,000	202	Hancock	3	3	1,225			31,000	510
Harlan	4	1	125	sh2, h1, 3	410	1,200	75	Henry	2	2	450			4,000	57
Hayes	1	1	100			160	47	Highland	1	1	300			3,000	75
Jefferson	1	1	175			1,500	14	Holmes	4	4	1,100			10,000	339
Kimball	1	1		sh1	125		40	Knox	4	4	1,150			5,700	134
Lancaster	5	3	580	h2	550	23,900	283	Licking	4	4	1,300			13,400	256
Lincoln	1	1	200			10,000	108	Logan	7	6	1,575	sh1	75	30,800	537
Nemaha	2	2	700			7,500	270	Mahoning	5	5	1,650			16,500	585
Nuckolls	2	1	250	sh1	90	2,500	114	Medina	2	2	750			15,000	156
Otoe	2	2	500			6,500	112	Miami	4	4	1,350			11,000	292
Pawnee	3	3	650			6,000	45	Montgomery	8	8	2,610			121,000	1,155
Platte	3	2	500	sh1	75	4,600	205	Morrow	1	1	275			3,000	170
Redwillow	1	1	400			6,000	25	Mustkingum	2	2	500			3,000	100
Richardson	4	4	580			6,800	159	Noble	2	2	750			2,100	109
Saline	1	1	225			2,200	33	Pickaway	3	3	800			6,500	137
Sanderson	1	1	200			4,500	30	Pike	1	1	200			3,000	100
Thurston	1	1		sh1	75		30	Portage	2	2	450			3,500	72
Washington	1	1	350			3,000	150	Preble	2	2	450			3,000	133
Wayne	2	1	200			3,000	71	Putnam	2	2	600			7,000	300
York	2	2	400			4,800	67	Richland	18	18	5,325			64,400	2,136
Total	73	55	12,185	18	1,745	330,420	3,731	Seneca	4	3	1,100	h1	200	15,000	842
NEW JERSEY:								Stark	14	13	4,250			120,800	1,265
Bergen	3	3	500			10,000	211	Summit	3	2 1/2	1,350			74,500	618
Cumberland	2	2	550			5,200	210	Trumbull	1	1	250			3,200	40
Essex	1	1	500			25,000	500	Tuscarawas	11	10 1/2	3,425			33,100	940
Hudson	2	1	175			10,000	290	Van Wert	7	7	2,150			11,000	362
Hunterdon	3	4	1,300			35,400	330	Wayne	11	9 1/2	4,200			71,500	977
Mercer	1	1	250			5,000	153	Williams	4	4	1,450			9,500	247
Morris	1	1	300			9,000	175	Wood	1	1	300			3,000	90
Salem	1	1	550			8,500	153	Wyandot	5	5	1,200			20,800	249
Somersot								Total	189	181 1/2	59,310	4	575	1,030,950	18,437
Union								PENNSYLVANIA:							
Warren	2	2	1,050			18,000	360	Adams	25	23	10,630			139,050	4,684
Total	16	16	5,175			126,100	2,415	Allegheny	8	6	2,175	h2	550	78,600	864
NEW MEXICO:								Armstrong	19	19	7,125			70,900	2,595
Santa Fe	1			h1	75		14	Bedford	28	25 1/2	8,000	sh1	75	86,100	1,862
Valencia	1			sh1	60		50	Berks	7	7	2,675			72,500	645
Total	2			2	135		64	Blair	21	21	7,775			179,100	3,618
NEW YORK:								Bucks	8	6	4,000			65,500	1,894
Albany	6	6	2,550			124,500	1,150	Butler	5	5	1,150			8,000	441
Columbia	11	11	3,666			93,000	1,536	Cambria	10	10	3,400			57,100	976
Dutchess	5	7	2,175			69,800	905	Centre	24	21 1/2	8,575	sh1	50	105,700	1,764
Eric	2	2	550			14,500	175	Chester	6	5	1,750	ph1		56,500	742
Fulton	3	3	1,454			47,000	610	Clarion	13	12	3,600	h1	500	37,300	890
Greene	1	1	425			10,000	103	Clearfield	13	13	3,900			33,350	545
Herkimer	2	2	430			10,300	142	Columbia	4	4	1,325			31,600	578
Jefferson	4	4	950			7,500	105	Crawford	10	8 1/2	3,700			38,500	1,154
Kings	4	7	2,500			110,000	1,181	Cumberland	2	2	650			4,000	190
Livingston	2	2	600			10,000	170	Dauphin	21	19	7,675	sh1	400	139,400	3,059
Montgomery	6	7	2,750			92,000	1,148	Delaware	24	23 1/2	12,075	sh1, 2, h1, 2	1,950	262,050	3,744
New York	3	3	2,400			300,000	1,786	Fayette	1	1	650			5,500	55
Niagara	3	3	900			12,400	215	Franklin	21	14	6,075			100,200	2,645
Oneida	1	1	300			5,000	300	Fulton	3	2	550	sh1	50	5,500	225
								Huntingdon	12	13	3,150			26,400	1,232
								Indiana	17	16 1/4	5,525			65,850	1,419
								Jefferson	5	4	1,200	h1	125	7,700	538
								Juniata	5	5	2,212			22,400	768
								Lancaster	14	11	4,950			72,800	2,032
								Lawrence	1	1	350			1,800	69

I.—GENERAL SYNOD—CONTINUED.

COUNTIES.	Number of organi- zations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.
PENNSYLVANIA— Con'd.							
Lebanon	6	6	2,700	shl	850	\$96,500	1,532
Lehigh	4	4	1,975			52,500	620
Luzerne	3	3	1,500			24,800	447
Lycoming	15	21	8,265			156,500	3,278
Mercer	2	2	450			1,700	56
Mifflin	12	12	4,068			52,800	1,412
Monroe	6	6	3,460			10,000	660
Montgomery	5	3½	1,550	phl		46,300	733
Montour	2	2	760			13,000	308
Northampton	2	4½	2,115	shl		51,000	896
Northumberland	21	18	9,750	shl	75	209,000	4,221
Perry	22	20½	6,125			72,800	2,106
Philadelphia	7	7	3,175			245,000	1,358
Schuylkill	14	13	5,270	hl	200	87,500	2,723
Snyder	10	9	4,000			37,400	1,028
Somerset	50	45½	15,056			140,875	4,397
Tioga	5	3	1,050	shl	75	7,250	400
Union	10	8½	4,200			62,700	1,800
Washington	1	1	400			2,000	32
Westmoreland	7	6	1,825	hl	150	16,275	544
York	61	48	26,175			498,350	11,298
Total	596	545½	219,516	17	5,050	3,672,650	78,938
SOUTH DAKOTA:							
Lincoln	2	2	170			700	41
Pennington	1	1	200			7,000	23
Total	3	3	370			7,700	64
TENNESSEE:							
Bedford	3	3	1,500			2,800	222
Davidson	1	1	600			2,500	217
Dickson	1	1	500			1,000	46
Franklin	2	2	600			500	48
Moore	4	4	1,400			2,100	216
Total	11	11	4,600			8,900	740
VIRGINIA:							
Loudoun	3	3	1,050			7,000	450
WEST VIRGINIA:							
Berkley	2	2	800			20,000	483
Mineral	1	1	300			5,000	100
Ohio	1	1	400			36,000	300
Taylor	1	1	300			8,000	225
Total	5	5	1,800			69,000	1,108
WISCONSIN:							
Door	5	4	1,300	shl	50	5,900	263
Green	3	1½	400	hl	200	3,000	60
Lafayette	1	1	250			3,500	200
Taylor	1	1	300			2,200	200
Walworth	1	1	350			3,000	138
Total	11	8½	2,600	2	250	17,600	861
WYOMING:							
Albany	1			shl	75		50
Laramie	2	2	350			6,100	91
Total	3	2	350	1	75	6,100	141

SUMMARY BY STATES, ETC.

STATES, ETC.	Number of organi- zations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.
Alabama	1	1	300			2,000	175
California	6	3	1,700		600	87,000	743
Colorado	7	5	1,025	2		61,500	220
Connecticut	2	1	400	1	200	7,000	190
District of Columbia	6	6	3,000			301,000	1,038
Illinois	93	83½	24,803	3	585	344,050	7,438
Indiana	86	88	23,600	6	170	243,300	6,090
Iowa	30	28	8,585	2	225	127,200	2,043
Kansas	53	43	10,245	10	1,070	171,000	2,835
Kentucky	11	11	3,700			48,700	1,627
Maryland	96	96½	43,430			843,050	17,288
Massachusetts	2	2	275			2,700	103
Michigan	9	9	2,450			37,500	679
Minnesota	1	1	300			1,200	26

STATES, ETC.	Number of organi- zations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.
Missouri	14	13	4,125	1	50	\$132,850	1,676
Nebraska	73	55	12,185	18	1,745	330,420	3,731
New Jersey	16	16	5,175			120,100	2,415
New Mexico	2			2	135		61
New York	95	100½	36,925			1,224,700	15,011
Ohio	189	181½	59,310	4	675	1,039,950	18,437
Pennsylvania	596	545½	219,516	17	5,050	3,672,650	78,938
South Dakota	3	3	370			7,700	64
Tennessee	11	11	4,600			8,900	740
Virginia	3	3	1,050			7,000	450
West Virginia	5	5	1,800			69,000	1,108
Wisconsin	11	8½	2,600	2	250	17,600	861
Wyoming	3	2	350	1	75	6,100	141
Total	1,424	1,322½	471,819	72	10,730	8,919,170	161,610

BY SYNODS.

SYNODS.	Number of organi- zations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.
ALLEGHENY:							
Garrett, Md	1	1	225			500	54
Bedford, Pa	28	25½	8,000	shl	75	86,100	1,862
Blair, Pa	21	21	7,775			179,100	3,618
Cambria, Pa	10	10	3,400			57,100	974
Centre, Pa	2	1	300	shl	50	1,500	61
Clearfield, Pa	13	13	3,000			33,350	545
Fayette, Pa	1	1	650			15,000	71
Huntingdon, Pa	12	13	3,150			26,400	1,222
Somerset, Pa	50	45½	15,056			140,875	4,397
Total	138	131½	42,456	2	125	639,925	12,806
CENTRAL ILLINOIS:							
Adams, Ill	2	2	600			3,500	310
Brown, Ill	1						25
Fayette, Ill	1	1	250			2,000	50
Hancock, Ill	2	2	1,100			16,000	140
McDonough, Ill	2	1½	325			1,200	40
Macon, Ill	1	1	300			1,000	25
Macoupin, Ill	1	1	240			1,200	20
Montgomery, Ill	9	9	2,200			26,200	546
Richland, Ill	1	2	300			1,000	25
Sangamon, Ill	1	1	400			7,000	220
Tazewell, Ill	1	1	300			10,000	125
Wabash, Ill	2	2	700			7,000	181
Saint Louis, Mo	1	1	700			65,000	400
Total	25	21½	7,415			117,100	2,187
CENTRAL PENNSYLVANIA:							
Los Angeles, Cal	1	1	600			23,000	129
Centre, Pa	22	20½	8,275			101,200	1,703
Clinton, Pa	3	3	1,100			39,800	503
Guernsey, Pa	5	5	2,212			22,400	708
Juniata, Pa	12	12	4,068			52,800	1,412
Mifflin, Pa	22	20½	6,125			72,800	2,106
Perry, Pa	9	8	3,500			25,100	716
Snyder, Pa	9	7½	3,400			41,700	1,322
Total	83	77½	29,280			372,100	8,680
EAST OHIO:							
Olusted, Minn	1	1	300			1,200	26
Ashland, Ohio	6	6	2,100			43,000	622
Columbiana, Ohio	3	3	800			5,500	317
Guernsey, Ohio	4	4	1,300			3,800	172
Holmes, Ohio	4	4	1,100			10,000	339
Knox, Ohio	3	3	950			4,300	82
Licking, Ohio	1	1	300			1,800	40
Madison, Ohio	5	5	1,650			16,500	585
Medina, Ohio	2	2	750			15,000	156
Muskingum, Ohio	2	2	500			3,000	100
Noble, Ohio	2	2	750			2,100	109
Portage, Ohio	2	2	450			3,500	72
Stark, Ohio	14	13	4,250			120,800	1,265
Summit, Ohio	3	2½	1,350			74,500	618
Trumbull, Ohio	1	1	250			3,200	40
Tuscarawas, Ohio	11	10½	3,425			33,100	940
Wayne, Ohio	11	9½	4,200			71,500	977
Total	75	71½	24,425			412,500	6,361

I.—GENERAL SYNOD—CONTINUED.

SYNODS.	Number of organi- zations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.	SYNODS.	Number of organi- zations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.
EAST PENNSYLVANIA:								KANSAS—Con'd.							
Warren, N. J.	2	2	1,050			\$18,000	360	Reno, Kans.	1	1	250			\$4,000	30
Berks, Pa.	7	7	2,675			72,500	645	Russell, Kans.	1	1	200			2,000	46
Bucks, Pa.	8	6	4,600			65,500	1,894	Saline, Kans.	2	2	600			22,500	275
Chester, Pa.	6	5	1,750	ph1		56,500	742	Shawnee, Kans.	1	1	600			20,000	190
Dauphin, Pa.	24	23½	12,075	sh1½ hl½	1,950	262,050	3,744	Sumner, Kans.	3	2	425	sh1	100	5,500	114
Delaware, Pa.	1	1	225			5,500	55	Washington, Kans.	3	2	400	hl	150	4,450	106
Lancaster, Pa.	14	14	4,950			72,800	2,032	Buchanan, Mo.	1	1	250			3,000	70
Lebanon, Pa.	6	6	2,700	sh1	850	96,500	1,532	Jackson, Mo.	2	2	850			52,000	363
Lehigh, Pa.	4	4	1,975			52,500	620	Nuckolls, Nebr.	2	1	250	sh1	90	2,500	114
Monroe, Pa.	6	6	3,450			10,000	660	Total	47	38	10,275	9	1,000	242,650	2,924
Montgomery, Pa.	5	3½	1,550	ph1		46,300	733	MARYLAND:							
Northampton, Pa.	5	4½	2,115			51,000	896	Washington, D. C.	6	6	3,000			301,000	1,038
Philadelphia, Pa.	7	7	3,175			245,000	1,358	Allegheny, Md.	5	5	2,050			66,000	1,192
Schuylkill, Pa.	14	13	5,270	hl	200	87,500	2,723	Baltimore, Md.	18	18	9,920			418,075	5,275
Total	109	102½	47,660	6	3,000	1,141,650	17,994	Carroll, Md.	20	17	8,000			72,375	3,261
FRANCEAN:								MIAMI:							
Columbia, N. Y.	2	2	650			12,500	385	San Diego, Cal.	1			hl	125		50
Fulton, N. Y.	1	1	400			2,000	45	Champaign, Ohio	3	3	800	hl	400		118
Herkimer, N. Y.	1	1	300			6,000	85	Boone, Ky.	3	3	1,250			6,500	266
Jefferson, N. Y.	4	4	950			7,500	105	Clark, Ohio	5	5	1,550			19,000	314
Montgomery, N. Y.	2	2	675			13,000	133	Delaware, Ohio	1	1	500			14,100	566
Onondaga, N. Y.	1	1	175			2,000	59	Fairfield, Ohio	4	4	1,050			18,000	210
Otsego, N. Y.	2	2	650			4,000	115	Greene, Ohio	2	2	680			3,000	238
Rensselaer, N. Y.	3	3	1,200			23,500	371	Hamilton, Ohio	3	2	850	hl	200	59,000	462
Saint Lawrence, N. Y.	3	2	450			3,700	59	Highland, Ohio	1	1	300			3,000	75
Schoharie, N. Y.	9	9	2,475			23,500	714	Licking, Ohio	3	3	1,000			11,500	216
Steuben, N. Y.	1	1	300			2,500	70	Miami, Ohio	4	4	1,250			11,000	292
Total	29	28	8,225			100,200	2,147	Montgomery, Ohio	8	8	2,610			121,000	1,155
HARTWICK:								NEBRASKA:							
Albany, N. Y.	5	5	1,850			34,500	850	Sacramento, Cal.	1	1	450			14,000	198
Columbia, N. Y.	3	3	900			14,000	225	Sutter, Cal.	1	1	250	sh1	75		37
Fulton, N. Y.	2	2	1,054			45,000	565	Arapahoe, Colo.	1	1	250			30,000	52
Greene, N. Y.	1	1	425			10,000	103	Eagle, Colo.	2	1	100	ph2			43
Livingston, N. Y.	2	2	600			10,000	170	Garfield, Colo.	1	1	200			1,200	20
Montgomery, N. Y.	3	4	1,075			29,000	372	Pitkin, Colo.	1	1	75			2,500	28
Niagara, N. Y.	3	3	900			12,400	215	Washington, Colo.	1	1	70			800	24
Otsego, N. Y.	1	1	250			2,000	47	Washington, Colo.	1	1	75			450	21
Rensselaer, N. Y.	3	3	1,600			34,000	585	Cloud, Kans.	3	3	320			2,400	124
Schoharie, N. Y.	9	8½	3,850			82,500	1,154	Marshall, Kans.	2	1	300	sh1	100	1,200	62
Ulster, N. Y.	2	3	900			13,000	322	Nemaha, Kans.	1	1	160			2,100	18
Total	31	35¼	13,404			286,400	4,578	Phillips, Kans.	1	1	170			1,000	23
IOWA:								MIDDLE TENNESSEE:							
San Francisco, Cal.	1	1	650			50,000	220	Bedford, Tenn.	3	3	1,500			2,800	222
Blackhawk, Iowa	1	1	200			1,500	55	Davidson, Tenn.	1	1	600			2,500	217
Cedar, Iowa	3	3	650			4,000	148	Dickson, Tenn.	1	1	500			1,000	46
Clinton, Iowa	1	1	200			1,500	65	Franklin, Tenn.	2	2	600			500	48
Des Moines, Iowa	1	1	450			8,000	77	Moore, Tenn.	4	4	1,400			2,100	216
Jasper, Iowa	1	1	250			6,000	88	Total	11	11	4,600			8,900	749
Jefferson, Iowa	1	1	300			3,000	85	NEBRASKA:							
Johnson, Iowa	2	2	550			3,800	79	Sacramento, Cal.	1	1	450			14,000	198
Jones, Iowa	1	1	175			2,500	35	Sutter, Cal.	1	1	250	sh1	75		37
Linn, Iowa	3	3	1,050			17,200	211	Arapahoe, Colo.	1	1	250			30,000	52
Lucas, Iowa	1	1	300	sh1	75	77	27	Eagle, Colo.	2	1	100	ph2			43
Marion, Iowa	2	2	600			900	75	Garfield, Colo.	1	1	200			1,200	20
Polk, Iowa	1	1	700			25,000	175	Pitkin, Colo.	1	1	75			2,500	28
Scott, Iowa	2	2	325			9,000	139	Washington, Colo.	1	1	70			800	24
Story, Iowa	2	2	450			4,800	115	Washington, Colo.	1	1	75			450	21
Van Buren, Iowa	1	1	160			1,000	17	Cloud, Kans.	3	3	320			2,400	124
Woodbury, Iowa	1	1	650			15,500	116	Marshall, Kans.	2	1	300	sh1	100	1,200	62
Total	25	24	7,160	1	75	153,700	1,727	Nemaha, Kans.	1	1	160			2,100	18
KANSAS:								MIDDLE TENNESSEE:							
Arapahoe, Colo.	1	1	400			30,000	53	Bedford, Tenn.	3	3	1,500			2,800	222
Atchison, Kans.	1	1	375			10,200	131	Davidson, Tenn.	1	1	600			2,500	217
Butler, Kans.	1	1	200			1,500	33	Dickson, Tenn.	1	1	500			1,000	46
Decatur, Kans.	2	2	375			4,000	43	Franklin, Tenn.	2	2	600			500	48
Dickinson, Kans.	8	6	1,600	sh2	170	21,400	516	Moore, Tenn.	4	4	1,400			2,100	216
Douglas, Kans.	1	1	250			4,000	83	Total	11	11	4,600			8,900	749
Ellis, Kans.	1	1	300			7,000	92	NEBRASKA:							
Ellsworth, Kans.	3	2	350	sh1	125	5,000	93	Sacramento, Cal.	1	1	450			14,000	198
Franklin, Kans.	2	2	350			3,500	48	Sutter, Cal.	1	1	250	sh1	75		37
Greenwood, Kans.	1	1	325			5,500	72	Arapahoe, Colo.	1	1	250			30,000	52
Jefferson, Kans.	1	1	300			0,000	50	Eagle, Colo.	2	1	100	ph2			43
Leavenworth, Kans.	1	1	400	hl	150	13,000	80	Garfield, Colo.	1	1	200			1,200	20
Lyon, Kans.	2	1	350	sh1	90	6,000	109	Pitkin, Colo.	1	1	75			2,500	28
Marion, Kans.	2	2	375			4,000	69	Washington, Colo.	1	1	70			800	24
Marshall, Kans.	2	1	300	sh1	125	4,900	109	Washington, Colo.	1	1	75			450	21
Ottawa, Kans.	2	1	300			4,000	66	Cloud, Kans.	3	3	320			2,400	124
Phillips, Kans.	1	1	200			1,600	24	Marshall, Kans.	2	1	300	sh1	100	1,200	62
								Nemaha, Kans.	1	1	160			2,100	18
								Phillips, Kans.	1	1	170			1,000	23
								Republic, Kans.	4	3	700	sh1	60	9,700	263
								Washington, Kans.	2	2	425			3,300	115
								Atchison, Mo.	1	1	300			5,500	150
								Buchanan, Mo.	3	2	300	ph1		2,750	195
								Adams, Nebr.	3	3	675			4,700	70
								Burt, Nebr.	3	3	675			4,000	40
								Butler, Nebr.	1	1	300				
								Cass, Nebr.	2	2	225	sh2	135		35
								Cheyenne, Nebr.	2	1	225	sh1	60	6,350	62
								Colfax, Nebr.	1	1	200			1,000	25
								Cumings, Nebr.	1	1	300			4,600	89
								Dakota, Nebr.	5	4	750	sh1	75	5,900	191
								Dixon, Nebr.	3	2	350	sh1	75	2,500	117
								Dodge, Nebr.	5	3	580	hl½ sh1½	75	5,160	315
								Douglas, Nebr.	4	4	1,200			167,400	800

I.—(GENERAL SYNOD)—CONTINUED.

Number of organi- zations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.	SYNODS.		Number of organi- zations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.
							North Indiana— Gen'l.	Other							
550		550			\$8,000	115	NORTH INDIANA— Gen'l.								
600		600			22,000	202	Elkhart, Ind.	11	11	3,125			\$19,000	622	
125	sh 2, 3			410	1,200	75	Huntington, Ind.	2	2	400			1,100	44	
100	h 1				100	47	Jay, Ind.	4	4	925			6,200	201	
175					1,500	14	Lagrange, Ind.	1	3	635			6,600	250	
580	sh 1	125			23,000	283	Noble, Ind.	7	7	1,875			14,200	342	
700	h 2	500			10,000	100	Plyton, Ind.	1	1	200			1,600	20	
500					7,500	270	Wabash, Ind.	5	5	1,575			7,200	337	
600					6,000	112	Whitley, Ind.	3	3	950			17,000	370	
500					4,000	45	Berlin, Mich.	4	4	1,000			7,300	162	
400	sh 1	75			4,000	205	Saint Joseph, Mich.	5	5	1,450			30,200	527	
580					6,800	150	Total	67	71	19,475			181,100	4,050	
225					2,200	33	OLIVE BRANCH:								
400					4,500	30	Bartholomew, Ind.	3	3	500			6,000	122	
580					2,200	30	Delaware, Ind.	3	1	250	h 2	125	2,000	160	
200	sh 1	75			4,000	150	Fayette, Ind.	2	2	450			1,800	86	
400					3,000	71	Hamilton, Ind.	2	2	650			5,000	150	
400					4,800	67	Harrison, Ind.	1	1	400			3,800	78	
	h 1	75			700	41	Hendricks, Ind.	2	2	500			1,200	48	
150	sh 1	60			7,000	23	Henry, Ind.	1	1	250			2,000	40	
300					7,000	23	Marion, Ind.	6	7	1,650			34,400	340	
350	sh 1	75			6,100	91	Polaski, Ind.	1	1	100			1,000	165	
					6,100	91	Shelby, Ind.	2	2	500			9,500	142	
					6,100	91	Spencer, Ind.	1	1	200			1,000	28	
					6,100	91	Tipppecanoe, Ind.	2	1	125	sh 1	45	1,000	51	
					6,100	91	Wayne, Ind.	2	2	1,000			28,000	691	
					6,100	91	Bullitt, Ky.	1	1	400			800	21	
					6,100	91	Jefferson, Ky.	6	6	2,300			35,800	1,317	
					6,100	91	Nelson, Ky.	1	1	200			600	23	
					6,100	91	Butler, Ohio.	1	1	200			1,200	97	
					6,100	91	Total	37	35	9,075	3	170	135,100	3,577	
					6,100	91	Perry:								
					6,100	91	Allegheny, Pa.	8	6	2,175	h 2	550	78,000	804	
					6,100	91	Armstrong, Pa.	19	19	7,125			70,000	2,505	
					6,100	91	Butler, Pa.	5	5	1,150			8,000	441	
					6,100	91	Charley, Pa.	13	12	3,000	h 1	500	37,300	890	
					6,100	91	Greensburg, Pa.	2	2	650			4,000	160	
					6,100	91	Indiana, Pa.	17	16	5,525			65,850	1,419	
					6,100	91	Jefferson, Pa.	5	4	1,200	h 1	125	7,700	338	
					6,100	91	Lawrence, Pa.	1	1	350			1,800	60	
					6,100	91	Monroe, Pa.	2	2	450			1,700	56	
					6,100	91	Washington, Pa.	1	1	400			2,000	32	
					6,100	91	Westmoreland, Pa.	7	6	1,825	h 1	150	10,275	546	
					6,100	91	Ohio, W. Va.	1	1	400			300	300	
					6,100	91	Total	81	75	24,850	5	1,325	330,125	7,740	
					6,100	91	SOUTH ILLINOIS:								
					6,100	91	Jackson, Ill.	6	4	1,050	sh 2	175	7,100	207	
					6,100	91	Polaski, Ill.	1	1	200			1,000	40	
					6,100	91	Union, Ill.	4	5	1,800			9,000	549	
					6,100	91	Hollinger, Mo.	3	2	700	h 1	50	1,250	276	
					6,100	91	Perry, Mo.	3	3	700			1,100	102	
					6,100	91	Total	19	15	4,450	3	225	20,250	1,234	
					6,100	91	SOUQUERHANNA:								
					6,100	91	Clinton, Pa.	1	1	225			1,800	75	
					6,100	91	Columbia, Pa.	10	8	3,700			38,500	1,154	
					6,100	91	Luzerne, Pa.	3	3	1,500			24,800	447	
					6,100	91	Lycoming, Pa.	15	21	8,265			156,600	3,278	
					6,100	91	Montour, Pa.	2	2	750			13,000	308	
					6,100	91	Northumberland, Pa.	21	18	9,750	sh 1	75	200,000	4,221	
					6,100	91	Snyder, Pa.	1	1	600			12,000	282	
					6,100	91	Toga, Pa.	5	3	1,050	sh 1	75	7,250	400	
					6,100	91	Union, Pa.	1	1	800			21,000	478	
					6,100	91	Total	50	58	26,540	2	150	483,850	10,043	
					6,100	91	WARREN:								
					6,100	91	Chilman, Ala.	1	1	300			2,000	175	
					6,100	91	Brown, Ill.	1	1	70			600	25	
					6,100	91	Calhoun, Ill.	1	1	250			3,000	50	
					6,100	91	Chas, Ill.	3	2	788	sh 1	75	15,500	398	
					6,100	91	Cook, Ill.	7	4	975	h 2, 3	335	10,100	626	
					6,100	91	Jo Davless, Ill.	1	1	400	ph 1, 2		3,000	250	
					6,100	91	Logan, Ill.	1	1	180			1,500	120	
					6,100	91	Morgan, Ill.	1	1	200			1,200	42	
					6,100	91	Randolph, Ill.	1	1	300			12,000	260	
					6,100	91	Stanton, Ill.	1	1	500			8,000	200	
					6,100	91	Tazewell, Ill.	2	2	625			3,000	200	

I.—GENERAL SYNOD—CONTINUED.

SYNODS.	Number of organi- zations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.	SYNODS.	Number of organi- zations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.
WARTBURG—Con'd.								WITTENBERG— Cou'd.							
Butler, Iowa	1	1	500				26	Wood, Ohio	1	1	300			\$3,000	90
Des Moines, Iowa	1	1	700			\$10,000	100	Wyandot, Ohio	5	5	1,200			20,800	249
Grundy, Iowa	3	2	375	hl	150	3,500	175	Total	74	71	22,475	3	375	338,650	7,830
Muscatine, Iowa	1	1	500			10,000	135								
Macon, Mo	1	1	200			1,700	100								
Lafayette, Wis.	1	1	250			3,500	200								
Taylor, Wis.	1	1	300			2,200	200								
Total	29	24	7,313	5	560	90,800	3,320								
WEST PENNSYLVANIA:								SUMMARY BY SYNODS.							
Carroll, Md.	1	1	250			3,500	60	Allegheny	138	131 1/2	42,456	2	125	630,625	12,806
Adams, Pa	25	23	10,630			139,050	4,684	Central Illinois	25	24 1/2	7,415			147,100	2,187
Cumberland, Pa	21	19	7,675	shl	400	139,400	3,059	Central Pennsylvania	83	77 1/2	29,280			372,100	8,680
Franklin, Pa	20	13	5,575			82,200	2,251	East Ohio	75	71 1/2	24,425			412,800	6,360
Fulton, Pa	3	2	550	shl	50	5,500	225	East Pennsylvania	109	102 1/2	47,560	6	3,000	1,141,650	17,994
York, Pa	61	48	26,175			498,350	11,296	Frankcreek	29	28	8,225			100,200	2,147
Total	131	106	60,855	2	450	868,000	21,575	Hartwick	34	35 1/4	13,404			286,400	4,578
								Iowa	25	24	7,160	1	75	153,700	1,727
								Kansas	47	38	10,275	9	1,000	242,650	2,924
								Maryland	108	108 1/2	48,905			1,198,050	10,864
								Miami	45	42	13,310	3	725	295,000	4,604
								Middle Tennessee	11	11	4,600			8,900	749
								Nebraska	102	77	16,175	25	2,100	415,870	5,064
								New York and New Jersey	50	54	20,096	1	200	955,900	11,234
								North Illinois	46	41	12,900	2	250	198,050	3,147
								North Indiana	67	71	19,475			184,100	4,650
								Olive Branch	37	35	9,675	3	170	135,100	3,577
								Pittsburg	81	75 1/2	24,850	5	1,325	330,125	7,740
								South Illinois	19	15 1/2	4,450	3	225	20,250	1,234
								Susquehanna	59	58 1/2	26,540	2	150	483,850	10,643
								Wartburg	29	24	7,213	5	560	90,800	3,320
								West Pennsylvania	131	106	50,855	2	450	868,000	21,575
								Wittenberg	74	71	22,475	3	375	338,650	7,836
								Total	1,424	1,322 1/2	471,819	72	10,730	8,919,170	164,640

II.—UNITED SYNOD IN THE SOUTH—CONTINUED.

COUNTIES.	Number of organi- zations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.	STATES.	Number of organi- zations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.
NORTH CAROLINA—								South Carolina	71	78	27,525	1	450	\$339,250	8,757
Con'd.								Tennessee	23	20	7,410	3	450	52,750	1,999
Randolph	2	2	560			\$1,600	93	Virginia	145	124 1/2	45,090	16	1,800	314,200	11,196
Rowan	21	21	8,050			71,500	3,060	West Virginia	21	21 1/2	5,680	1	100	33,725	1,518
Stanly	5	5	1,978			3,350	244	Total	414	379 1/4	138,453	29	4,225	1,114,065	37,457
Stokes	2	1	100				11	BY SYNODS.							
Union	2	2	850			3,700	36	SYNODS.							
Watauga	2	1	250			400	105	ALPHA SYNOD OF							
Total	119	106 3/4	44,463	4	750	263,690	11,759	FREEDMEN:							
SOUTH CAROLINA:								Alamance, N. C.	1	1	150			300	15
Aiken	2	2	700			2,000	240	Cabarrus, N. C.	1	1	200			900	30
Barnwell	3	3	775			4,200	240	Davidson, N. C.	1	1	200			350	27
Charleston	5	9	4,700			232,000	1,540	Guilford, N. C.	1	1	200	ph1		200	15
Edgefield	4	4	1,350			3,800	456	Mecklenburg, N. C.	1			sh1	250	7	
Lexington	34	33	11,900	sh1	450	31,200	3,609	Total	5	3	550	2	250	1,750	94
Newberry	13	13	4,050			26,400	1,736	GEORGIA:							
Oconee	3	1	400			5,000	105	Columbia, Fla.	1	1	300			950	103
Orangeburg	6	7	2,000			11,250	542	Duval, Fla.	1	1	160			4,500	40
Richland	4	5	1,400			19,900	278	Carroll, Ga.	3	3	525			1,300	60
Sumter	1	1	250			500	11	Chatham, Ga.	1	1	800			75,000	442
Total	74	78	27,525	1	450	339,250	8,757	Coweta, Ga.	1	1	150			500	155
TENNESSEE:								Effingham, Ga.	5	5	1,650			6,400	496
Greene	5	5	1,805			6,950	741	Macon, Ga.	2	2	500			1,050	119
Hamblen	1	1	400			2,500	20	Sumter, Ga.	2	1	400	sh1	200	1,400	84
Knox	5	5	1,000			31,900	363	Terrell, Ga.	1	1	400			1,500	36
Monroe	3	3	1,125			3,800	175	Total	17	16	4,885	1	200	92,600	1,535
Sullivan	8	5	2,200	sh3	450	6,200	620	HOLSTON:							
Washington	1	1	280			1,400	80	Greene, Tenn.	5	5	1,805			6,950	741
Total	23	20	7,410	3	450	52,750	1,999	Hamblen, Tenn.	1	1	400			2,500	20
VIRGINIA:								Knox, Tenn.	5	5	1,600			31,900	363
Augusta	15	16	5,135			49,500	1,484	Monroe, Tenn.	3	3	1,125			3,800	175
Blind	5	13 1/2	1,300	sh2	200	2,450	157	Sullivan, Tenn.	8	5	2,200	sh3	450	6,200	620
Botetourt	5	4 1/2	1,200			6,300	295	Washington, Tenn.	1	1	280			1,400	80
Carroll	1	1	250			1,300	40	Scott, Va.	1	1	400	sh1	200	1,500	95
Clarke	1	0 1/2	200			400	10	Washington, Va.	3	2	425	sh1	150	900	95
Craig	1	0 1/2	200			1,000	25	Total	27	22	7,835	5	800	53,650	2,129
Floyd	5	3 1/2	1,050	sh1	100	3,200	308	MISSISSIPPI:							
Franklin	1	0 1/2	250			1,000	18	Attala, Miss.	3	3	650			600	82
Frederick	9	9	2,500			31,000	837	Scott, Miss.	3	2	500	sh1	100	400	52
Giles	4	3	900	sh1	100	3,700	230	Smith, Miss.	2	2	600			2,000	189
Henrico	2	2	752			16,200	250	Winston, Miss.	3	3	1,000			1,650	239
Madison	2	2	700			2,700	215	Total	11	10	2,750	1	100	4,650	533
Montgomery	8	4	1,400	sh3 1/4 ph1 1/2	300	10,000	421	NORTH CAROLINA:							
Page	10	11	4,098			16,925	897	Alamance, N. C.	2	2	750			7,000	100
Prince William	1	1		h1	150		33	Cabarrus, N. C.	12	12	4,650			32,500	1,314
Pulaski	1	1	500			7,000	40	Davidson, N. C.	4	3	1,800			6,600	383
Roanoke	8	8	2,650			43,000	776	Davie, N. C.	3	2	650			7,000	77
Rockbridge	2	1	300	h1	200	3,000	105	Forsyth, N. C.	3	3	750			2,300	127
Rockingham	11	9 1/2	3,680			17,500	550	Guilford, N. C.	3	2 1/2	1,300			5,200	453
Scott	1	1		sh1	200		35	Iredell, N. C.	3	3	1,400			8,500	176
Shepherd	25	25	9,900			62,825	2,416	Mecklenburg, N. C.	1	1	400			21,000	130
Smyth	3	3	950			3,100	351	New Hanover, N. C.	1	1	800			30,000	360
Tazewell	4	1 1/2	800	sh2	400	4,500	199	Randolph, N. C.	1	1	350			900	26
Warren	1	0 1/2	250			1,600	20	Rowan, N. C.	18	18	6,950			65,300	2,875
Washington	7	4	1,625	ph2 sh1 1/2	150	2,900	287	Stanly, N. C.	2	2	900			2,000	120
Wythe	12	12	4,500			23,100	1,197	Stokes, N. C.	2	1	100			11	11
Total	145	124 1/2	45,090	16	1,800	314,200	11,196	Sumter, S. C.	1	1	250			500	11
WEST VIRGINIA:								Total	56	52 1/2	21,050			188,800	6,163
Berkeley	1	1	150			300	8	SOUTH CAROLINA:							
Hampshire	3	2 1/2	535			2,125	156	Richmond, Ga.	1	1	400			12,000	85
Hardy	2	1 1/2	370			2,200	51	Aiken, S. C.	2	2	700			2,000	240
Jefferson	3	2 1/2	1,000			12,500	323	Barnwell, S. C.	3	3	775			4,200	240
Mason	1	1	600			4,500	170	Charleston, S. C.	5	9	4,700			232,000	1,540
Mercer	2	1	200	sh1	100	1,200	40	Edgefield, S. C.	4	4	1,350			3,800	456
Preston	9	10 1/2	2,825			10,900	770	Lexington, S. C.	22	22	6,500			21,000	1,831
Total	21	21 1/2	5,680	1	100	33,725	1,518	Newberry, S. C.	13	13	4,050			26,400	1,736
								Oconee, S. C.	2	1	400			5,000	105
								Orangeburg, S. C.	6	7	2,000			11,250	542
								Richland, S. C.	3	4	1,100			19,500	238
								Total	61	66	21,975			337,150	7,013

SUMMARY BY STATES.

STATES.	Number of organi- zations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.
Alabama	3	1	250	2	375	1,200	75
Florida	2	2	460			5,450	143
Georgia	16	15	4,825	1	200	99,150	1,477
Mississippi	11	10	2,750	1	100	4,650	533
North Carolina	119	106 3/4	44,463	4	750	263,690	11,759

THE GENERAL COUNCIL.

This was the third general body to be organized in the order of time. When the General Synod consented in 1864 to the admission of the Franckean Synod, which was regarded by the minority of the General Synod as un-Lutheran and as not having definitely accepted the Augsburg Confession, the delegates of the Ministerium of Pennsylvania protested (a number of others joining in the protest) and withdrew. At the next session of the General Synod, being excluded from participation in its organization, they retired from the body. The Pittsburg, the New York, the English Ohio, the Minnesota, and the Texas synods also dissolved their connection with the General Synod. The withdrawal of the delegates of the Ministerium of Pennsylvania was approved by that body at its next session, and a committee was appointed to issue a "fraternal address to all Evangelical Lutheran synods, ministers, and congregations in the United States and Canada which confess the Unaltered Augsburg Confession, inviting them to unite in a convention for the purpose of forming a union of Lutheran synods". The proposed convention was held in December, 1866, representatives of the synods of Pennsylvania, New York, English Ohio, Pittsburg, Wisconsin, English district of Ohio, Michigan, Minnesota, Canada, Illinois, and the Joint Synod of Ohio participating. "Principles of Faith and Church Polity" were adopted, and the next year the first convention of the new body was held. Thus was the General Council organized.

In the first year of its history the Joint Synod of Ohio withdrew and the German Synod of Iowa assumed a semi-independent position, sending delegates and participating in the debate but taking no part in the voting. This body still sustains this relation. The withdrawal of the Joint Synod of Ohio and, a few years later, of the synods of Wisconsin, Illinois, and Minnesota, and the semi-independent position taken by the German Synod of Iowa, were on account of the refusal of the General Council to give a satisfactory declaration on what are called the "Four Points". It was the desire of these bodies that some expression should be given concerning Chiliasm, and that the admission of non-Lutherans to communion, the exchange of "pulpits with sectarians", and membership in secret societies should be unequivocally condemned. The council would not commit itself fully at that time on these points, though it has since practically done so, especially on the questions of pulpit and altar fellowship.

The confessional basis of the General Council is as follows:

We accept and acknowledge the doctrine of the Unaltered Augsburg Confession in its original sense as throughout in conformity with the pure truth, of which God's Word is the only rule. We accept its statements of truth as in perfect accordance with the canonical scriptures. We reject the errors it condemns, and believe that all which it commits to the liberty of the church of right belongs to that liberty.

In thus formally accepting and acknowledging the Unaltered Augsburg Confession we declare our conviction that the other confessions of the Evangelical Lutheran Church, inasmuch as they set forth none other than its system of doctrine and articles of faith, are of necessity pure and scriptural. Pre-eminent among such accordant pure and scriptural statements of doctrine, by their intrinsic excellence, by the great and necessary ends for which they were prepared, by their historical position, and by the general judgment of the church, are these: The Apology of the Augsburg Confession, the Smalcald Articles, the Catechisms of Luther, and the Formula of Concord, all of which are, with the Unaltered Augsburg Confession, in perfect harmony of one and the same scriptural faith.

One of the most perplexing questions Lutherans have had to deal with in this country has been that of language. It is agreed that the communion sustained very heavy losses down almost to the middle of this century by insisting that synodical proceedings and church services generally should be in the German tongue. The children, having learned English, desired to have the services conducted in that language; failing in this they joined other denominations. The General Council proposed from the beginning that the different languages and nationalities "should be firmly knit together in this New World in the unity of one and the same pure faith", and declared that "no distinction of language" must be allowed "to interfere with the great work" before the church in this country. It includes American, German, and Scandinavian

elements, but English is the official language of the General Council, though the German and Scandinavian tongues are also used. It has many large English churches in the eastern cities, but a majority of the congregations are German and Scandinavian and employ those languages. But few of the ministers are incapable of speaking and writing in English. All the correspondence of the Census Office with Lutherans of whatever synodical connection was in English, and scarcely a score out of the thousands of letters received were in any other tongue.

There are 9 synods connected with the General Council, including 1 in Canada, which, of course, is not given in these tables. While the General Council, the General Synod, and, indeed, most other denominations of this country, have churches and communicants in other countries, these churches and communicants are omitted in the census reports. Only those congregations are included which are within the territorial limits of the United States. The General Council has 1,995 organizations, with 1,512 edifices and 317,145 communicants. Of the latter, 107,025 are attached to the Ministerium of Pennsylvania, the oldest Lutheran synod in the United States. Some 367 organizations hold worship in halls, schoolhouses, etc. The total value of church property is \$10,996,786, or an average for each edifice of \$7,270, which is even higher than the extraordinary average of houses of worship owned by the General Synod. The average seating capacity of the edifices is 382.

While there are only 8 synods, there are congregations in 32 states and 1 territory, Pennsylvania, of course, maintaining the lead, with 616, or nearly one-third of the whole number, and 124,163 communicants. The next largest number of communicants, 39,430, is found in New York, Minnesota coming third, with 27,609, and Illinois fourth, with 26,429. The synod of Texas is the only synod that does not cross state lines. The Swedish Augustana synod, though second in numbers to the Ministerium of Pennsylvania, embraces in its territory no fewer than 30 states, being in fact almost as widespread as the entire General Council. Delaware and Kentucky are the only two states covered by the General Council which are not also covered by the Augustana Synod. This body of wide boundaries was organized in 1860 with only about 5,000 communicants, and is composed of Swedish Lutherans. The synod is subdivided into 7 conferences, or subsynods, which meet semiannually. The synod itself is assembled yearly. The German Iowa synod has 5 districts, and covers several states.

III.—GENERAL COUNCIL EVANGELICAL LUTHERAN CHURCH.

BY COUNTIES.

COUNTIES.	Number of organizations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.	COUNTIES.	Number of organizations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.
CALIFORNIA :								DELAWARE :							
Alameda	1	1	150			\$10,000	65	Newcastle	2	1	335			\$10,600	296
Fresno	1	1	250			3,500	50	DISTRICT OF COLUMBIA :							
Los Angeles	1	1	175			6,800	25	Washington city	1	2	1,400			40,000	600
San Bernardino	1						34	FLORIDA :							
San Francisco	1	1	400			30,000	313	Volusia	1			h1	100		17
San Luis Obispo	1						66	IDAHO :							
Santa Clara	1	1	200			12,000	50	Latah	3	2	180	sh1	50	2,450	139
Total	7	5	1,175			62,300	603	ILLINOIS :							
COLORADO :								Adams	2	2	200			2,050	163
Arapahoe	2	3	711			60,100	300	Bureau	8	5	1,300	sh 2/3 ph1	150	9,300	804
Boulder	3	1	400	ph1/2 sh1	75	3,500	145	Carroll	2			sh1/2 h1	150		100
Clear Creek	1	1	200			1,200	38	Champaign	1	1	100			450	84
Jefferson	1	1	125			1,000	36	Cook	20	19	10,050			291,900	6,126
Total	7	6	1,436	2	75	65,800	519	Dekalb	3	3	1,055			19,500	783
CONNECTICUT :								Effingham	1	1	350			2,150	113
Fairfield	4	2	370	h2	350	17,500	285	Fayette	1	1	250			1,500	100
Hartford	6	5	1,600	h1	150	21,900	830	Ford	7	6	1,575	h2	180	23,000	930
Litchfield	2			h2	375		93	Franklin	1	1	400			4,000	225
Middlesex	2	1	450	h1	250	7,000	532	Hancock	2	2	500			5,500	240
New Haven	7	5	2,650	h2	400	65,000	1,385	Henderson	2			h2	350		105
Tolland	1	1	350			7,000	381	Henry	9	10	3,550			68,200	2,510
Windham	2	1	400	h1	300	4,000	261	Iroquois	6	4	910	sh2	150	7,200	605
Total	24	15	5,820	9	1,825	122,400	3,767								

III.—GENERAL COUNCIL EVANGELICAL LUTHERAN CHURCH—CONTINUED.

COUNTIES.	Number of organi- zations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.	COUNTIES.	Number of organi- zations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.
ILLINOIS—Con'd.								IOWA—Con'd.							
Jasper	1	1	200			\$800	130	Henry	3	2	500	sh1		\$9,500	359
Jo Daviess	3	2	320	sh1	80	2,700	180	Howard	4	2	575	sh1/2 hl	90	1,800	200
Kane	5	5	1,860			41,300	1,000	Ida	1	1	200			1,200	40
Knox	5	6	2,265			34,700	2,043	Iowa	6	1		sh1	50		48
Lake	1	1	160			1,200	50	Jackson	1	4	880	sh2	100	8,300	760
Lasalle	8	7	1,350	hl	100	17,200	840	Jefferson	4	4	750			8,300	444
Lee	5	3 1/2	775	sh1	75	7,000	402	Johnson	4	4	650			9,200	371
Livingston	7	5	1,000	sh2	150	8,400	635	Jones	4	2	350	sh2	130	3,500	350
Logan	2	2	500			6,500	127	Kossuth	4	3	500	sh1	65	6,400	218
McLean	3	2	430	sh1	75	3,800	317	Lee	3	3	480			5,300	122
Macon	1	1	350			17,000	67	Linn	1	1	275	sh1	50		33
Marshall	1	1	400			2,500	275	Lucas	3	2	425	sh1	95	3,200	158
Massac	1	1	200			1,500	190	Mahaska	1	1	250			1,000	116
Mercer	4	4	1,325			10,500	882	Marshall	2	2	320			3,500	119
Ogle	4	0 1/2	150	ph1		1,500	50	Mills	2	2	450			4,800	276
Peoria	5	4	1,110	sh1	75	25,400	545	Mitchell	2	2	750			6,500	310
Pope	1	1	300			2,500	125	Montgomery	2	2	1,650			21,800	723
Putnam	1	1	125			300	25	Muscatine	4	3	1,175	sh1	50	18,700	690
Richland	1	1	250			2,000	150	Pago	4	4	1,560			17,225	716
Rock Island	4	3	2,425	hl	700	53,600	1,491	Plymouth	1	1	225			2,500	69
Shelby	1	1	100			1,000	38	Pocahontas	2	2	400			5,200	205
Stark	1	1	250			1,800	50	Polk	3	3	1,420			39,800	638
Union	1	1	250			2,000	130	Pottawattamie	1	1	250			2,500	24
Vermilion	1	1		sh1	80		41	Poweshiek	1	1	300			3,500	196
Warren	1	1	250			2,000	158	Sac	3	2	450	sh1	40	3,800	199
Whiteside	4	3	700	sh1	50	4,700	185	Scott	2	2	700			6,300	174
Will	2	2	400			7,200	296	Tama	1	1		sh1	75		65
Winnebago	3	3	3,200			101,500	2,819	Union	1	1	150			1,500	140
Woodford	1	1	550			5,000	300	Wapello	3	3	798			12,000	557
Total	141	120	41,485	22	2,365	800,650	26,429	Wayne	1	1	150			1,000	40
INDIANA:								KANSAS:							
Allen	2	2	600			50,500	507	Allen	1	1	200			1,200	222
Bartholomew	1	1					20	Bourbon	1			ph1			12
Boone	1	1	400			2,000	140	Clay	1	1	288			1,000	150
Carrll	1	1	350			1,500	50	Crawford	2	2	175			2,050	180
Clinton	3	2 1/2	1,025			4,800	265	Decatur	2			sh1/2 sh1	20		43
Elkhart	3	3	850			13,000	360	Dickinson	1	1	200			2,000	40
Fountain	4	4	1,200			5,000	264	Douglas	1	1	100			2,000	32
Fulton	2	2	650			4,100	147	Ellsworth	1			sh1	75		80
Greene	1	1	325			1,200	68	Franklin	1	1	200			2,000	35
Harrison	1	1	475			1,000	120	Geary	2	1	75	sh1	28	800	45
Henry	2	2	475			4,300	87	Gove	1	1	125			700	45
Jay	1	1		hl	250		55	Logan	1	1	100			2,000	41
Knox	1	1	200			800	60	McPherson	6	7	4,000			62,500	1,995
Kosciusko	2	2					82	Marshall	2	2	450			6,000	220
Lake	2	1	200	sh1	75	1,500	110	Mitchell	1	1	200			1,400	75
Laporte	1	3	975			19,500	408	Morris	2	2	375			3,900	224
Marion	1	1	400			6,000	100	Neosho	1	1		ph1			22
Marshall	1	1	150			1,400	46	Osage	1	1	400			4,000	108
Montgomery	1	1	350			1,500	100	Osborne	1	1	40			300	30
Porter	2	2	600			20,500	458	Pawnee	1			sh1	50		35
Saint Joseph	1	1	250			3,500	225	Phillips	2	1	196	sh1	38	1,000	159
Tippacanoe	2	2	600			3,500	120	Pottawatomie	3	3	745			7,000	287
Wayne	1	1	260			2,500	95	Rawlins	1	1	150			500	60
Total	38	33 1/2	10,335	2	325	148,100	3,887	Reno	1	1	125			1,330	29
IOWA:								REPUBLIC:							
Adair	1	1	125			900	70	Riley	2	2	375			3,200	168
Allamakee	2	2	350			1,600	333	Rush	2			sh2	160		95
Appanoose	1	1	250			1,500	76	Russell	2			sh2	150		193
Blackhawk	5	4	778	hl	50	7,200	555	Saline	4	4	1,450			18,500	964
Boone	5	5	1,350			9,000	653	Shawnee	1	1	400			14,000	100
Bremer	8	7	1,850	sh1	60	13,500	1,798	Sheridan	2			sh2	70		28
Buchanan	2	2	300			1,150	183	Sherman	2	1	55	sh1	35	160	50
Buena Vista	5	5	875			11,000	384	Smith	2			sh2	150		82
Butler	4	3	700	sh1	60	6,000	390	Wabunsee	1	1	70			600	25
Calhoun	3	1	250	sh2	145	2,000	181	Wallace	2	1	125	sh1	50	1,200	69
Cass	1			sh1	50		24	Washington	1	1	175			1,500	39
Cerro Gordo	3			sh2/3 hl	240		140	Wilson	1			sh1	27		34
Cherokee	2	1	140	sh1	50	1,000	83	Wyandotte	1			sh1	45		11
Chickasaw	8	5	1,150	sh3	210	4,650	578	Total	62	43	11,294	20	898	136,830	6,269
Clay	1	1		sh1	40		29	KENTUCKY:							
Clayton	7	6	1,550	sh1	60	11,300	946	Edmonson	1			ph1			13
Clinton	3	3	975			15,400	571	Lincoln	1	1	150			800	120
Crawford	1	1	150			1,200	70	McCracken	2	2	420			6,000	166
Delaware	3	1	120	sh2	120	800	210	Total	4	3	570	1		6,800	299
Des Moines	7	4 1/2	1,550	ph1		13,700	1,016								
Dickinson	2	1	100	sh1	35	600	60								
Dubuque	1	1	600			28,000	500								
Fayette	9	7	1,650	sh2	105	11,255	827								
Floyd	3	1	300	sh2	150	4,300	488								
Franklin	1	1	200			2,300	100								
Grundy	1			ph1			30								
Hamilton	1	1	200			2,000	136								
Hancock	1			sh1	60		50								

III.—GENERAL COUNCIL EVANGELICAL LUTHERAN CHURCH—CONTINUED.

COUNTIES.							COUNTIES.							
Number of organi- zations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.	Number of organi- zations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.	
MAINE:							MINNESOTA—Con'd.							
Aroostook	1	1	300		\$2,600	179	Murray	2	2	475		\$4,300	78	
MASSACHUSETTS:							Murray	5	5	2,800		36,600	1,189	
Berkshire	1	1	250		8,000	314	Nicollet	2	2	350		5,750	126	
Essex	2	2		h2	375	120	Norman	2	2		ph2		38	
Franklin	1	1	100		65	45	Ottertail	9	8	1,420	sh1/2 hl1/2	160	11,800	804
Middlesex	2	2	600		8,500	276	Pine	2	1	125	sh1	100	1,000	162
Norfolk	1	1		h1	150	45	Polk	12	4	715	sh3 ph3,8 h2	320	4,550	550
Plymouth	1	1	200		1,400	260	Pope	2	1	125	sh1	50	600	108
Suffolk	1	1	600		26,000	428	Ramsay	6	7	3,500	hl1	200	73,800	1,187
Worcester	3	1	400	h2	12,000	235	Redwood	1	1	250		2,000	111	
Total	12	6	2,110	0	1,075	55,900	1,743	Renville	2	2	545		4,120	365
MICHIGAN:							Rice	1	1	200		1,000	80	
Allegan	1	1	110		1,500	41	Saint Louis	6	5	1,650		29,100	478	
Alpena	2	1	500	ph1	6,200	327	Scott	2	2	350		2,500	170	
Baraga	1	1				25	Sherburne	1	1		ph1		35	
Bay	1	1	250		2,000	126	Sibley	2	2	525		3,800	443	
Berrien	1	1	100		1,000	24	Stearns	1	1	125		1,000	93	
Cheboygan	3	1	135	sh2	105	143	Steele	5	3	840	sh2	145	4,700	815
Delta	2	2	350		3,050	170	Stevens	1	1		sh1	50	20	
Gogebic	1	1	200		2,400	126	Swift	2	1	250	sh1	100	1,200	120
Houghton	1	1	470		1,900	140	Todd	1	1	150		500	40	
Iosco	2	2	300		3,000	174	Traverse	2	1	400	hl1	60	2,000	127
Kent	2	2	700		12,400	337	Wabasha	2	1	300	sh1	60	2,000	162
Lapeer	2	2	300		4,000	87	Waseca	5	5	970		7,050	477	
Leauwee	3	3	800		5,400	766	Washington	6	5	2,270	sh1	75	36,100	1,476
Mackinac	1	1		sh1	45	30	Watonwan	4	3	1,100	ph1		8,000	745
Macomb	5	4	1,050	sh1	75	874	Wright	9	9	2,445		16,100	1,448	
Manistee	1	1	350		4,000	214	Yellow Medicine	2	1	200	sh1	75	2,000	110
Marquette	7	7	2,350		38,000	1,101	Total	220	172	51,735	51	2,800	616,720	27,609
Mason	1	1	250		4,000	230	MISSOURI:							
Mecosta	3	1	150	sh1/2 hl1/2	100	120	Bates	1	1	250		1,500	60	
Menominee	5	4	1,100	ph1	7,900	267	Benton	3	3	550		4,400	392	
Monroe	4	4	955		9,000	647	Cape Girardeau	1	1	200		600	116	
Monroe	2	2	700		5,600	420	Cole	3	3	800		10,800	363	
Osceola	2	2	450		4,000	200	Jackson	1	1	500		75,000	324	
Presque Isle	5	1	100	sh3/4 ph1/2	154	164	Linn	1	1	100		1,000	40	
Saint Clair	5	5	1,225		11,700	1,058	Morgan	4	4	734		4,200	323	
Schlosserft	1	2	200		3,200	114	Perry	1	1	300		3,000	127	
Shiawassee	1	1	70		100	40	Pettis	1	1	150		1,300	60	
Washtenaw	1	1	150		800	60	Vernon	2	2		h2	325		52
Wayne	1	1	360		4,400	320	Total	18	16	3,584	2	325	101,800	1,857
Wexford	3	3	550		5,700	305	NEBRASKA:							
Total	70	58	14,305	12	479	153,350	8,710	Banner	2	1	50	ph1	150	28
MINNESOTA:							Boone	2	2		sh2	120	61	
Aitkin	1	1	100		300	25	Buffalo	2	1	200	sh1	60	4,000	108
Anoka	3	3	500		3,450	253	Burt	1	1	300		8,000	270	
Becker	5	4	1,000	sh1	70	400	Cass	1	1		h1	100	27	
Bigstone	2	1	250	sh1	70	119	Cedar	3	3		sh3	216	93	
Brown	1	1	300		2,000	104	Cheyenne	2	2	290		1,000	246	
Carlton	3	2	475	sh1	100	162	Clay	2	2	450		12,000	158	
Carver	4	3	1,450	ph1	22,500	1,257	Dawson	1	1	300		1,500	120	
Chippewa	2	1	120	sh1	100	114	Deuel	3	2	300	ph1	1,100	127	
Chisago	8	9	3,775		39,300	2,760	Dixon	2	1	200		3,750	200	
Clay	2	2	550		4,800	231	Dodge	1	1	100		2,500	39	
Cottonwood	1	1		sh1	50	25	Douglas	2	2	1,300		55,000	450	
Crow Wing	2	1	250	sh1	60	85	Fillmore	1	1	200		2,500	115	
Dakota	1	1	275		1,000	55	Franklin	4	4		sh3/4 ph1/2	210	250	
Douglas	1	1	100		1,000	55	Frontier	2	1	60		35	33	
Faribault	11	10	2,180	sh1	70	1,096	Furnas	1	1	60		40	25	
Fillmore	5	4	675	sh1	65	640	Gage	4	3	590	sh1	80	3,750	277
Freshorn	4	2	490	sh2	145	216	Hamilton	1	1	100		2,200	50	
Goodhue	9	8	3,195	sh1	60	53,300	Harlan	2	2	150		580	82	
Grant	3	1	200	ph1/2 sh1/2	100	750	Jefferson	1	1	150		1,200	94	
Hennepin	7	7	4,250		115,300	1,792	Johnson	1	1	200		2,100	170	
Isanti	5	5	1,550		11,500	885	Kearney	3	2	875	sh1	60	15,500	389
Jackson	3	1	200	sh2	145	1,300	Kimball	1	1	70		400	22	
Kanabec	1	1	180		400	26	Knox	4	2	400	sh2	120	3,000	140
Kandiyohi	6	6	2,250		18,500	1,622	Lancaster	3	2	475	ph1	14,800	194	
Kittson	4	3	500	sh1	50	4,000	Madison	1	1	75		1,500	80	
Lac qui parle	1	1	300		2,500	150	Nance	1	1		sh1	60	19	
Lesueur	6	5	1,100	ph1	5,800	198	Nemaha	3	3	775		5,100	400	
Lincoln	1	1	150		600	65	Otoe	8	3	735	sh4	225	5,711	592
Lyon	2	2	350		4,300	178	Phelps	4	4	796		11,250	532	
McLeod	1	1	100		500	52	Platte	1	1	300		4,000	260	
Marshall	4	2	500	sh1/2 ph1/2	50	1,600	Polk	2	2	900		14,000	445	
Martin	3	1	300	sh1/2	110	2,200	Saline	1	1	110		600	45	
Meeker	1	5	1,450	sh1	60	15,900	Saunders	6	5	1,170	sh1	70	22,775	645
Morrison	6	1	100		600	150	Seward	1	1		sh1	150	37	
Mower	4	2	450	ph1/2 sh1/2	50	2,200	Sheridan	3	3		ph2		77	
							Thayer	1	1	250		600	64	
							Wayne	1	1				40	

III.—GENERAL COUNCIL EVANGELICAL LUTHERAN CHURCH—CONTINUED.

COUNTIES.	Number of organi- zations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.	COUNTIES.	Number of organi- zations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.
NEBRASKA—Con'd.								OHIO—Con'd.							
Webster	2	1	100	ph1		\$300	110	Franklin	1	1	300			\$8,000	175
York	1	1	150			2,000	80	Fulton	3	2	390	sh1	50	3,300	155
Total	88	55	12,181	28	1,471	206,001	7,204	Hancock	2	2	380			7,000	271
NEW HAMPSHIRE:								ONTARIO:							
Coos	1	1	250			3,500	125	Hardin	2	2	600			4,000	160
Hillsboro	1	1	500			10,000	270	Harrison	4	4	1,350			20,200	348
Total	2	2	750			13,500	395	Henry	4	4	730			3,700	450
NEW JERSEY:								OSAGE:							
Bergen	1			h1	150		80	Clatsop	1	1	150			1,000	20
Burlington	2					5,500	80	Coos	1	1	300			2,650	120
Camden	3	3	1,200			32,500	691	Morrow	1			sh1	75		35
Cumberland	2	2	800			16,000	125	Multnomah	1	1	225			10,000	130
Essex	4	2	1,050	h1	75	50,000	887	Total	4	3	675	1	75	13,650	305
Hudson	9	7	2,980	h2	450	149,500	3,295	PENNSYLVANIA:							
Mercer	2	2	1,200			50,000	1,400	Allegheny	27	23	7,125	h4 75 sh1 5	900	294,150	3,228
Middlesex	1	1	430			15,000	117	Armstrong	13	12	3,850	ph1		46,300	1,391
Morris	2			h2	500		70	Beaver	14	13	3,225	h1	150	51,400	1,184
Passaic	1			h1	250		70	Berks	65	45 1/2	47,100			666,650	19,659
Union	1	1	400			7,000	450	Blair	1	1	750			30,000	600
Warren	2	2	725			14,000	395	Bradford	2	1	275	h1	200	2,200	230
Total	39	20	8,785	7	1,425	339,500	7,940	Bucks	18	16	7,050	sh1	100	95,000	5,526
NEW YORK:								PERMITS:							
Albany	3	4	1,115			41,200	1,060	Butler	9	9	2,645			39,100	1,002
Chautauqua	2	2	2,750			65,000	1,810	Cambria	1			h1	100		35
Columbia	2	2	200			3,500	180	Cameron	1			h1	150		40
Dutchess	2	2	400			16,500	375	Carbon	18	11 1/2	5,650	sh1 23 h2 5	370	56,700	3,251
Erie	13	15	6,010			144,300	5,022	Chester	4	4	1,275			34,000	625
Essex	2	1	130			1,200	100	Clarion	3	3	1,100			9,800	495
Genesee	1	2	550	sh1	70	6,000	555	Clearfield	6	4	1,100	h2	325	17,000	648
Jefferson	13	12	6,480	h1	200	400,100	7,862	Clinton	2	2	720			19,000	404
Kings	3	2	6,010			131,860	5,784	Columbia	8	6 1/2	2,100			23,400	1,170
Monroe	11	12	6,010			24,000	5,600	Crawford	7	7	1,700			18,500	541
Montgomery	2	2	720			24,000	5,600	Cumberland	2	2	7,700			12,500	296
New York	15	12	6,135	h3	600	694,000	5,600	Dauphin	14	10 1/2	7,750			79,250	2,250
Niagara	2	2	450			9,000	717	Delaware	1			h1	300		82
Oneida	5	6	2,650			92,000	2,249	Elk	6	2 1/2	750	h2	300	8,500	527
Oranoga	2	2	850			33,000	472	Erie	5	3	1,650	h1 2 sh1 5	375	100,200	1,490
Orange	2	2	900			21,000	585	Fayette	8	6	1,850	sh2	100	23,000	903
Orleans	1					14,000	625	Forest	2	1	950			7,000	470
Queens	3	3	780			25,600	1,278	Greene	2	1 1/2	600			3,500	340
Rensselaer	4	5	1,500			15,600	550	Indiana	1	1	350			8,000	72
Richmond	2	2	430			17,000	405	Jefferson	7	6	1,450	h1	150	7,050	446
Stauben	3	2	975	sh1	100	3,000	70	Juniata	3	1 1/2	1,250			2,025	74
Suffolk	1	1	150			2,400	80	Lackawanna	6	6	1,800			47,800	765
Sullivan	1	1	150			56,850	1,410	Lancaster	29	24 1/2	15,555			254,600	6,239
Ulster	4	4	1,650			61,000	1,399	Lawrence	2	2	410			2,500	120
Wayne	4	3	1,700			36,000	370	Lehigh	17	13 1/2	9,850			128,700	3,379
Westchester	4	4	1,050			36,000	370	Leligh	46	31	26,250			340,300	12,021
Yates	1	1	180			1,500	149	Luzerne	23	17 1/2	6,800			112,550	4,235
Total	113	109	43,764	8	1,370	1,915,510	39,430	Lycoming	3	3	850			5,300	702
NORTH DAKOTA:								MERCER:							
Barnes	3			sh3	195		85	Monroe	8	7	1,740	ph1		18,000	816
Burlingh	2	1	300	sh1	60	3,000	105	Mercer	5	3 1/2	1,775			15,400	820
Cass	8	3	670	sh5	305	10,100	296	Montgomery	8	5 1/2	2,600			39,300	945
Dickey	4	1	140	sh2 3 ph1 5	160	1,200	184	Montour	21	21	12,100			230,300	6,641
Eddy	2			sh2	120		33	Northampton	6	5 1/2	1,550			18,000	1,066
Emmons	1			sh1	70		30	Northumberland	39	27 1/2	22,355	ph1 2 h1 5	80	38,030	2,613
Lamoure	1			sh1	100		32	Ohio	20	12	6,025			1,263,400	9,529
Logan	2			ph2 7 sh1 8	60	1,100	437	Allen	5	4	1,450	sh1	100	11,300	500
McIntosh	10	2	200			50	174	Ashtabula	2	1	350	h1	200	5,100	185
Ransom	1			sh1	50		31	Belmont	1	1	400			8,000	150
Sargent	1			sh1	60		40	Carroll	2	3	700			4,500	184
Steele	1			sh1	75		40	Columbiana	1	1	125			3,000	85
Stutsman	1			sh1	80		29	Coshocton	2	2	600			2,800	224
Wells	1			ph1				Cuyahoga	4	4	950			25,500	574
Total	38	7	1,210	31	1,335	15,400	1,582	Darke	2	1	250			2,000	90
OHIO:								DELAWARE:							
Allen	5	4	1,450	sh1	100	11,300	500	Delaware	1			h1	300		82
Ashtabula	2	1	350	h1	200	5,100	185	Elk	6	2 1/2	750	h2	300	8,500	527
Belmont	1	1	400			8,000	150	Erie	5	3	1,650	h1 2 sh1 5	375	100,200	1,490
Carroll	2	3	700			4,500	184	Fayette	8	6	1,850	sh2	100	23,000	903
Columbiana	1	1	125			3,000	85	Forest	2	1	950			7,000	470
Coshocton	2	2	600			2,800	224	Greene	2	1 1/2	600			3,500	340
Cuyahoga	4	4	950			25,500	574	Indiana	1	1	350			8,000	72
Darke	2	1	250			2,000	90	Jefferson	7	6	1,450	h1	150	7,050	446
Defiance	6	5	1,300			13,200	640	Juniata	3	1 1/2	1,250			2,025	74
Fairfield	7	6 1/2	2,700			53,250	1,361	Lackawanna	6	6	1,800			47,800	765
								Lancaster	29	24 1/2	15,555			254,600	6,239
								Lawrence	2	2	410			2,500	120
								Lehigh	17	13 1/2	9,850			128,700	3,379
								Leligh	46	31	26,250			340,300	12,021
								Luzerne	23	17 1/2	6,800			112,550	4,235
								Lycoming	3	3	850			5,300	702
								Monroe	8	7	1,740	ph1		18,000	816
								Mercer	5	3 1/2	1,775			15,400	820
								Montgomery	8	5 1/2	2,600			39,300	945
								Montour	21	21	12,100			230,300	6,641
								Northampton	6	5 1/2	1,550			18,000	1,066
								Northumberland	39	27 1/2	22,355	ph1 2 h1 5	80	38,030	2,613
								Ohio	20	12	6,025			1,263,400	9,529
								Allen	5	4	1,450	sh1	100	11,300	500
								Ashtabula	2	1	350	h1	200	5,100	185
								Belmont	1	1	400				

III.—GENERAL COUNCIL EVANGELICAL LUTHERAN CHURCH—CONTINUED.

COUNTIES.	Number of organi- zations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.	COUNTIES.	Number of organi- zations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.
PENNSYLVANIA— Con't.															
Sullivan	2	2	450			\$2,400	285	VERMONT:							
Susquehanna	1	1	160			1,800	20	Rutland							
Tioga	3	3	500			4,400	464								
Venango	3	3	685			11,400	154	WASHINGTON:							
Warren	8	7	2,300	h1	150	45,300	1,249	Clarke							
Washington	4	4	1,025			18,600	308	King							
Westmoreland	30	26 1/2	9,830	h1	300	157,500	4,021	Pierce							
York	1	1	450			2,500	100	Skagit							
								Spokane							
								Wahkiakum							
Total	616	485 1/2	268,885	30	4,130	4,993,355	124,163	Total							
RHODE ISLAND:								WEST VIRGINIA:							
Kent	3	1	300	h2	850	5,250	420	Ohio							
SOUTH DAKOTA:								WISCONSIN:							
Aurora	2	1	200	ph1		600	65	Ashland							
Beadle	3	2	295	sh1	75	4,550	118	Barron							
Brookings	2			eh2	135		80	Bayfield							
Brown	6			ph1/4	175		286	Burnett							
Brule	3			h3/2	118		109	Door							
Buffalo	1			sh1	75		20	Douglas							
Campbell	2	1	120	sh1	75	50	178	Eau Claire							
Charles Mix	2	1	280	sh1	75	2,500	139	Grant							
Clark	1			sh1	75		34	Marathon							
Clay	1	1	250			1,500	150	Marquette							
Codington	1			h1	250		75	Peppin							
Davison	3	2	200	sh1	75	2,800	144	Pierce							
Day	4	2	400	sh2	115	1,800	201	Polk							
Douglas	4	2	180	sh1/2	75	900	167	Portage							
Edmunds	4			ph1			140	Price							
Fall River	1			sh2/4	150		149	Saint Croix							
Grant	2			ph2/5			30	Washburn							
Hamlin	1			h1	200		106	Waupaca							
Hughes	2	1	200	sh1	75	2,400	55	Wood							
Hutchinson	8	6	840	sh2	150	4,550	345	Total							
Hyde	1			sh1	75		45	Wyoming:							
Jerauld	2			sh2	150		37	Carbon							
Kingsbury	6	1	95	sh4/5	273	500	213	Laramie							
Lake	3			ph1			142	Sweetwater							
Lawrence	4	1	150	sh2/3	45		126	Utah							
Lincoln	1	1	150	sh1	75	2,500	113	Total							
McCook	1			sh1	100	1,000	45								
McPherson	10	2	280	sh1/8	225	675	623								
Marshall	1			sh2	50		50								
Miner	1			sh1	50		34								
Minnehaha	3	3	700	sh1		7,200	224								
Moody	1			h1	50		13								
Pennington	3	2	390	h1	150	5,000	150								
Potter	1			sh1	180		102								
Sanborn	1			sh1	75		24								
Spink	5			sh3	425		163								
Union	2	2	250	ph1/5		1,600	151								
Yankton	1			h1	200		35								
Total	100	31	5,070	66	4,751	40,125	4,770								
TEXAS:															
Bell	3	2	300			2,700	200								
Bexar	1	1	500			15,000	500								
Caldwell	1	1	250			3,000	75								
Colorado	2	2	250	h1	200	3,400	567								
Dewitt	5	5	1,325			14,940	956								
Fayette	4	1	100	sh2/3	530	3,200	321								
Galveston	1	1	800	h1/5		15,000	787								
Gillespie	2	2	520			4,000	410								
Guadalupe	3	3	390			8,800	230								
Lavaca	4	4	1,150			5,500	365								
Mason	1	1	100			700	80								
Medina	2	2	300			3,000	271								
Milam	1	1	160			500	25								
Travis	4	4	1,275			27,500	593								
Victoria	1	1	400			8,000	300								
Washington	5	5	1,250			10,500	1,183								
Williamson	2	3	800			3,000	277								
Total	42	30	9,810	4	730	128,740	7,140								
								SUMMARY BY STATES, ETC.							
								STATES, ETC.							
								California							
								Colorado							
								Connecticut							
								Delaware							
								District of Columbia							
								Florida							
								Idaho							
								Illinois							
								Indiana							
								Iowa							
								Kansas							
								Kentucky							
								Maine							
								Massachusetts							
								Michigan							
								Minnesota							
								Missouri							
								Nebraska							
								New Hampshire							
								New Jersey							
								New York							
								North Dakota							
								Ohio							
								Oregon							
								Pennsylvania							
								Rhode Island							
								South Dakota							
								Texas							
								Vermont							
								Washington							
								West Virginia							
								Wisconsin							
								Wyoming							
								Total							

III.—GENERAL COUNCIL EVANGELICAL LUTHERAN CHURCH—CONTINUED.

SYNODS.	Number of organi- zations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.	SYNODS.	Number of organi- zations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.
PITTSBURG—Con'd.								SCANDINAVIAN AUGUSTANA—Con'd.							
Mercer, Pa.	5	3 1/2	1,775			\$15,400	820	Scott, Iowa	1	1	200			\$3,200	56
Potter, Pa.	1	1	200	sh1	80	2,500	84	Union, Iowa	1	1	150			1,500	140
Venango, Pa.	3	3	685			11,400	754	Wapello, Iowa	2	2	650			8,000	490
Warren, Pa.	2	1	500	h1	150	30,000	525	Webster, Iowa	4	3	1,100	h1	60	12,500	783
Washington, Pa.	4	4	1,025			18,000	308	Woodbury, Iowa	1	1	1,000			45,000	238
Westmoreland, Pa.	28	25 1/2	9,340			154,000	4,447	Allen, Kans	1	1	200			1,200	222
Ohio, W. Va.	1	1	800			10,000	650	Clay, Kans	1	1	288			1,000	150
Total	167	149 1/2	47,825	15	2,005	961,800	20,755	Decatur, Kans	1	1		sh1	20		33
SCANDINAVIAN AUGUSTANA:								Dickinson, Kans							
Alameda, Cal.	1	1	150			10,000	65	Douglas, Kans	1	1	200			2,000	40
Fresno, Cal.	1	1	250			3,500	59	Franklin, Kans	1	1	100			2,000	32
Los Angeles, Cal.	1	1	175			6,800	25	Geary, Kans	2	1	75	sh1	28	2,000	35
San Bernardino, Cal.	1	1					34	Gove, Kans	1	1	125			700	45
San Francisco, Cal.	1	1	400			30,000	313	Logan, Kans	1	1	100			2,000	41
San Luis Obispo, Cal.	1	1					66	McPherson, Kans.	6	7	4,000			52,500	1,995
Santa Clara, Cal.	1	1	200			12,000	59	Marshall, Kans	2	2	450			6,000	220
Arapahoe, Colo.	1	2	675			60,000	250	Morris, Kans	2	2	375			3,000	224
Boulder, Colo.	3	1	400	ph1/2 sh1 1/2	75	3,500	145	Osage, Kans	1	1	400			4,000	108
Clear Creek, Colo.	1	1	200			1,200	38	Pawnee, Kans	1	1		sh1	50		35
Jefferson, Colo.	1	1	125			1,000	36	Pottawatomie, Kans	3	3	745			7,000	287
Fairfield, Conn.	3	1	300	h2	350	12,000	225	Rawlins, Kans	1	1	150			500	60
Hartford, Conn.	5	4	1,450	h1	150	18,900	730	Reno, Kans	1	1	125			1,350	20
Litchfield, Conn.	2	2		h2	375		93	Republic, Kans	2	2	500			6,000	245
Middlesex, Conn.	2	1	450	h1	250	7,000	532	Riley, Kans	2	2	375			3,200	168
New Haven, Conn.	5	3	950	h2	400	15,000	485	Saline, Kans	4	4	1,450			18,500	964
Windham, Conn.	2	1	400	h1	300	4,000	261	Shawnee, Kans	1	1	400			14,000	100
Volusia, Fla.	2	1		1	100		17	Wabaunsee, Kans.	1	1	70			600	25
Latah, Idaho	3	2	180	sh1	60	2,450	139	Wallace, Kans	2	1	125	sh1	50	1,200	69
Bureau, Ill.	4	3	830	ph1		3,300	468	Washington, Kans	1	1	175			1,500	39
Cook, Ill.	14	13	7,050			180,000	4,465	Wilson, Kans	1	1		sh1	27		31
DeKalb, Ill.	3	3	1,055			19,000	783	Wyandotte, Kans	1	1		sh1	45		11
Ford, Ill.	5	5	1,325	h1	80	20,000	762	Edmonson, Ky	1	1		ph1			13
Henderson, Ill.	2	2		h2	350		105	Aroostook, Me	2	1	300			2,600	179
Henry, Ill.	8	9	3,400			67,600	2,470	Essex, Mass	2	2		h2	375		120
Iroquois, Ill.	1	1	120			1,000	26	Franklin, Mass	2	2	600	h1	150	8,500	276
Kane, Ill.	5	5	1,869			41,309	1,000	Middlesex, Mass	1	1					45
Knox, Ill.	5	6	2,265			34,700	2,043	Norfolk, Mass	1	1	250			1,400	260
Lake, Ill.	1	1	150			1,200	50	Plymouth, Mass	1	1	600			26,000	428
Lasalle, Ill.	1	1	150			1,000	33	Suffolk, Mass	3	1	400	h2	400	12,000	235
McLean, Ill.	1	1	250			2,500	155	Worcester, Mass	1	1	110			1,500	41
Marshall, Ill.	1	1	400			2,500	275	Allegan, Mich	1	1					25
Mercer, Ill.	4	4	1,325			10,500	882	Baraga, Mich	1	1					126
Ogle, Ill.	1	1		ph1			25	Bay, Mich	1	1	250			2,000	24
Peoria, Ill.	1	1	160			3,300	59	Berrien, Mich	1	1	100			1,000	24
Putnam, Ill.	1	1	125			200	25	Delta, Mich	2	2	350			3,050	170
Rock Island, Ill.	4	3	2,425	h1	700	53,600	1,491	Gogebic, Mich	1	1	200			2,400	126
Shelby, Ill.	1	1	100			1,000	38	Houghton, Mich	1	1 1/2	470			1,900	140
Vermilion, Ill.	1	1		sh1	80		41	Iosco, Mich	2	2	300			3,000	174
Warren, Ill.	1	1	250			2,000	158	Kent, Mich	2	2	700			12,400	367
Whiteside, Ill.	3	2	450	sh1	50	3,500	119	Manistee, Mich	1	1	350			4,000	214
Will, Ill.	2	2	400			7,200	206	Marquette, Mich	7	7	2,350			38,000	1,101
Winnebago, Ill.	3	3	3,200			101,500	2,819	Mason, Mich	1	1	250			4,000	230
Elkhart, Ind.	1	1	150			3,000	115	Mecosta, Mich	3	1	150	sh1/2 h1 1/2	100	1,500	120
Fountain, Ind.	1	1	300			3,000	175	Menominee, Mich	5	4	1,100	ph1		7,900	267
Lake, Ind.	2	1	200	sh1	75	1,500	110	Muskegon, Mich	2	2	700			5,500	420
Laporte, Ind.	2	3	975			19,500	408	Oscoda, Mich	2	2	450			4,000	260
Marshall, Ind.	1	1	150			1,400	46	Schoolcraft, Mich	1	2	200			3,200	114
Porter, Ind.	2	2	600			20,500	458	Wexford, Mich	3	3	550			5,700	365
Saint Joseph, Ind.	1	1	250			3,500	225	Aitkin, Minn	1	1	100			1,300	25
Allamakee, Iowa	1	1	100			600	12	Anoka, Minn	3	3	600			3,450	253
Appanoose, Iowa	1	1	250			1,500	76	Becker, Minn	5	4	1,000	sh1	70	4,100	400
Boone, Iowa	5	5	1,350			9,000	653	Bigstone, Minn	2	1	250	sh1	70	1,800	119
Buena Vista, Iowa	5	5	875			11,000	384	Brown, Minn	1	1	300			2,000	104
Calhoun, Iowa	2	1	250	sh1	100	2,000	145	Carlton, Minn	3	2	475	sh1	100	4,500	162
Cass, Iowa	1	1		sh1	50		24	Carver, Minn	4	3	1,450	ph1		22,500	1,257
Cherokee, Iowa	2	1	140	sh1	50	1,000	83	Chippewa, Minn	2	1	120	sh1	100	1,200	114
Clay, Iowa	1	1		sh1	40		29	Chisago, Minn	8	9	3,775			39,300	2,760
Clayton, Iowa	1	1	200			1,200	74	Clay, Minn	2	2	550			4,800	231
Clinton, Iowa	1	1	500			10,000	195	Cottonwood, Minn	1	1		sh1	50	2,800	85
Des Moines, Iowa	3	2	850	ph1		9,200	711	Crow Wing, Minn	2	1	250	sh1	60	2,800	25
Hamilton, Iowa	1	1	200			2,000	136	Dakota, Minn	1	1	275			1,000	55
Henry, Iowa	3	2	500	ph1		3,500	359	Douglas, Minn	11	10	2,180	sh1	70	16,450	1,066
Jefferson, Iowa	2	2	450			1,800	295	Goodhue, Minn	9	8	3,195	sh1	60	53,300	2,216
Kossuth, Iowa	3	3	500			6,400	185	Grant, Minn	3	1	200	ph1/2 sh1 1/2	100	750	105
Lee, Iowa	2	2	380			3,800	97	Hennepin, Minn	7	7	4,250			115,300	1,792
Linn, Iowa	3	3		sh1	50		33	Isanti, Minn	5	5	11,550			11,500	885
Lucas, Iowa	1	2	425	sh1	95	3,200	158	Jackson, Minn	1	1	200			1,300	18
Mahaska, Iowa	1	1	250			1,000	116	Kanabec, Minn	1	1	180			1,400	26
Marshall, Iowa	1	1	200			2,500	69	Kandiyohei, Minn	6	6	2,550			18,500	1,022
Montgomery, Iowa	2	2	1,650			21,800	723	Kittson, Minn	4	3	500	sh1	50	4,000	285
Page, Iowa	4	4	1,560			17,225	716	Lac qui parle, Minn.	1	1	300			2,500	150
Pocahontas, Iowa	1	1	200			3,000	90	Lesueur, Minn	2	2	400			1,400	65
Polk, Iowa	1	1	1,000			35,000	532	Lincoln, Minn	1	1	150			4,000	178
Sac, Iowa	1	1	300			3,000	131	Lyon, Minn	2	2	550			500	52
								McLeod, Minn	1	1	100				

III.—GENERAL COUNCIL EVANGELICAL LUTHERAN CHURCH—CONTINUED.

SYNODS.	Number of organi- zations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.	SYNODS.	Number of organi- zations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.
SCANDINAVIAN AU- GUSTANA—Con'd.								SCANDINAVIAN AU- GUSTANA—Con'd.							
Marshall, Minn.	4	2	500	sh1,2	50	\$1,600	224	Summit, Ohio	1			h1	300		70
Martin, Minn.	3	1	300	sh2	110	2,200	197	Clatsop, Ore	1	1	150			\$1,000	20
Meeker, Minn.	6	5	1,450	sh1	60	15,900	760	Coos, Ore	1	1	300			2,650	120
Morrison, Minn.	1	1	100			600	150	Morrow, Ore	1			sh1	75		35
Mower, Minn.	2	1	250	ph1		1,300	62	Multnomah, Ore	1	1	225			10,000	130
Murray, Minn.	2	2	475			3,300	78	Allegheny, Pa.	3	3	1,050			24,000	454
Nicollet, Minn.	5	5	2,800			36,600	1,189	Cambria, Pa.	1			h1	100		35
Nobles, Minn.	2	2	350			5,750	125	Clearfield, Pa.	5	3	700	h2	325	9,000	507
Norman, Minn.	2			ph2			38	Crawford, Pa.	1	1	300			3,000	96
Ottertail, Minn.	9	8	1,420	sh1,2	160	11,800	804	Erie, Pa.	3	1	200	h2	300	3,000	170
Pine, Minn.	2	1	125	ph1		1,000	102	Erie, Pa.	1			h1	300	1,200	50
Polk, Minn.	12	4	715	sh3,8	320	4,550	550	Jefferson, Pa.	1			h1	150		40
Pope, Minn.	2	1	125	sh1	50	600	108	Luzerne, Pa.	2	2	550			3,500	185
Ramsey, Minn.	6	7	3,500	h1	200	73,800	1,187	McKean, Pa.	7	7	1,740			18,000	801
Redwood, Minn.	1	1	250			2,000	111	Philadelphia, Pa.	1	1	700			14,500	185
Renville, Minn.	2	2	545			4,120	305	Tioga, Pa.	3	3	500			4,400	464
Rice, Minn.	1	1	200			1,000	80	Warren, Pa.	6	6	1,800			15,300	724
Saint Louis, Minn.	6	5	1,650			29,100	478	Westmoreland, Pa.	2	1	250	h1	300	3,500	174
Scott, Minn.	1	1	150			1,000	16	Kent, R. I.	3	1	300	h2	850	5,250	420
Sherburne, Minn.	1			ph1			35	Beadle, S. Dak.	1	1	229			3,800	75
Sibley, Minn.	2	2	525			3,800	443	Brookings, S. Dak.	2			sh2	135		80
Stearns, Minn.	1	1	125			1,000	93	Brown, S. Dak.	3			sh3	175		136
Stevens, Minn.	1			sh1	50		20	Brule, S. Dak.	2			sh2	118		66
Swift, Minn.	2	1	250	sh1	100	1,200	120	Brown, S. Dak.	3			sh1	75	2,500	139
Todd, Minn.	1	1	150			500	40	Charles Mix, S. Dak.	2	1	280	sh1	75		34
Traverse, Minn.	2	1	400	h1	60	3,000	127	Clark, S. Dak.	1			sh1	75		34
Wabasha, Minn.	2	1	300	sh1	60	2,000	162	Clay, S. Dak.	1	1	250			1,500	150
Waseca, Minn.	2	2	450			3,200	137	Codington, S. Dak.	1			h1	250		75
Washington, Minn.	6	5	2,270	sh1	75	36,100	1,476	Davison, S. Dak.	2	2	290			2,800	129
Watsonwan, Minn.	4	3	1,100	ph1		8,000	745	Edmunds, S. Dak.	1			sh1	75		64
Wright, Minn.	9	9	2,445			15,100	1,448	Grant, S. Dak.	2			sh1,2	175		106
Yellow Medicine, Minn.	2	1	200	sh1	75	2,000	110	Hughes, S. Dak.	2	1	200	h1	60	2,400	55
Jackson, Mo.	1	1	500			75,000	324	Hyde, S. Dak.	1			sh1	75		45
Linn, Mo.	1	1	100			1,000	40	Kingsbury, S. Dak.	2			sh2	123		116
Banner, Nebr.	2	1	50	ph1		150	23	Lake, S. Dak.	1			sh1	45		32
Buffalo, Nebr.	1	1	200			4,000	50	Lawrence, S. Dak.	4	1	150	h2,3	575	2,500	126
Burt, Nebr.	1	1	300			8,000	270	Lincoln, S. Dak.	1	1	150	sh1		1,000	45
Cheyenne, Nebr.	1	1	150			500	46	McCook, S. Dak.	1			sh1	100		113
Clay, Nebr.	2	2	450			12,000	158	Marshall, S. Dak.	1			sh1	50		50
Deuel, Nebr.	3	2	300	ph1		1,100	127	Miner, S. Dak.	1			sh1	60		37
Dixon, Nebr.	2	1	200			3,750	200	Minnehaha, S. Dak.	3	3	700			7,200	224
Dodge, Nebr.	1	1	100			2,500	99	Moody, S. Dak.	1			h1	50		13
Douglas, Nebr.	2	2	1,300			58,000	450	Pennington, S. Dak.	2	2	390			5,000	101
Fillmore, Nebr.	1	1	200			2,500	115	Potter, S. Dak.	1			sh1	180		102
Franklin, Nebr.	2			sh1,2	50		55	Spink, S. Dak.	1			h1	200		31
Hamilton, Nebr.	1	1	100	ph1		2,200	50	Union, S. Dak.	2	2	250			1,600	151
Harlan, Nebr.	1	1	50			500	38	Yankton, S. Dak.	1			h1	200		35
Kearney, Nebr.	2	2	875			15,500	362	Travis, Tex.	2	2	825			14,500	245
Kimball, Nebr.	1	1	70			400	32	Williamson, Tex.	1	2	500			1,500	252
Knox, Nebr.	1	1	300			2,000	80	Rutland, Vt.	2			h2	600		174
Lancaster, Nebr.	2	1	300	ph1		12,000	131	Clarke, Wash.	1	1	150			450	45
Madison, Nebr.	1	1	75			1,500	80	King, Wash.	2	1	300			12,000	94
Phelps, Nebr.	4	4	796			11,250	532	Pierce, Wash.	1	1	500			17,000	175
Platte, Nebr.	1	1	300			4,000	260	Skagit, Wash.	1			sh1	50		30
Polk, Nebr.	2	2	900			14,000	445	Spokane, Wash.	1	1	400			4,000	86
Saunders, Nebr.	4	4	1,100			22,400	560	Wahkiakum, Wash.	1	1	100			500	16
Wayne, Nebr.	1						40	Ashland, Wis.	3	1	200	h1,2	75	3,500	174
York, Nebr.	1	1	150			2,000	80	Barron, Wis.	2	1	150	h1	100	800	60
Coos, N. H.	1	1	250			3,500	125	Bayfield, Wis.	5	2	325	h2,3	90	2,200	135
Hillsboro, N. H.	1	1	500			10,000	270	Burnett, Wis.	5	4	1,000	ph1		5,500	308
Bergen, N. J.	1			h1	150		80	Door, Wis.	1	1	150			600	42
Hudson, N. J.	2			h2	450		100	Douglas, Wis.	2	2	650			13,200	111
Morris, N. J.	2			h2	500		117	Eau Claire, Wis.	1	1	250			3,000	154
Passaic, N. J.	1			h1	250		70	Marathon, Wis.	2	1	200	ph1		1,400	70
Chautauque, N. Y.	5	5	2,075			42,000	1,582	Marinette, Wis.	3	3	850			6,100	344
Erie, N. Y.	1	1	300			9,000	66	Penh, Wis.	2	2	700			2,200	410
Essex, N. Y.	2			h2	400		120	Polk, Wis.	2	1	175	sh1	50	1,000	184
Kings, N. Y.	2	1	450	h1	200	19,100	427	Portage, Wis.	1			ph1		50	572
New York, N. Y.	4	1	850	h3	600	90,000	876	Price, Wis.	1	1	125			1,200	96
Barnes, N. Dak.	3			sh3	195		105	Saint Croix, Wis.	1	1	250			1,200	72
Burlingame, N. Dak.	2	1	300	sh1	60	3,000	105	Washburn, Wis.	1	1	200			500	76
Cass, N. Dak.	2	1	300	sh1	60	2,000	175	Waupaca, Wis.	1	1	100			400	56
Dickey, N. Dak.	3	1	140	sh2	160	1,200	33	Wood, Wis.	1	1	150			700	85
Eddy, N. Dak.	1			sh1	70		20	Carbon, Wyo.	2						80
Eminons, N. Dak.	1			sh1	70		30	Laramie, Wyo.	1						100
Sargent, N. Dak.	1			sh1	70		31	Sweetwater, Wyo.	1						309
Steele, N. Dak.	1			sh1	75		40	Uinta, Wyo.	1						100
Stutsman, N. Dak.	1			sh1	80		40								
Ashabula, Ohio	2	1	350	h1	200	5,100	185	Total	688	515 1/2	156,664	172	17,566	2,600,550	88,700
Cuyahoga, Ohio	1	1	300			10,000	105	Texas:							
Mahoning, Ohio	1	1	250			2,500	60	Bol, Tex.	3	2	300			2,700	200
								Bezar, Tex.	1	1	500			15,000	500

III.—GENERAL COUNCIL EVANGELICAL LUTHERAN CHURCH—CONTINUED.

SYNODE.	Number of organi- zations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.	SYNODE.	Number of organi- zations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.
TEXAS—Con'd.								GERMAN SYNOD OF Iowa—Con'd.							
Caldwell, Tex	1	1	250			\$3,000	75	Pottawattamie, Iowa	1	1	250			\$2,500	24
Colorado, Tex	2	2	250	h1	200	3,400	567	Poweshick, Iowa	1	1	300			3,500	136
Dewitt, Tex	5	5	1,325			14,940	956	Sac, Iowa	2	1	150	sh1	40	800	68
Fayette, Tex	4	1	100	h2)3 sh1)	530	3,200	321	Scott, Iowa	1	1	500			3,100	118
Galveston, Tex	1	1	800			15,000	787	Tama, Iowa	1	1		sh1	75	65	65
Gillespie, Tex	2	2	520			4,000	410	Wapello, Iowa	1	1	148			4,000	107
Guadalupe, Tex	3	3	360			8,800	230	Wayne, Iowa	1	1	150			1,900	40
Lavaca, Tex	4	4	1,150			5,600	365	Winneshick, Iowa	2	2	550			1,700	77
Mason, Tex	1	1	100			700	80	Woodbury, Iowa	1	1		sh1	60	50	50
Medina, Tex	2	2	300			3,000	271	Worth, Iowa	1	1	300			2,800	62
Milam, Tex	1	1	100			500	25	Bourbon, Kans.	1	2	175	ph1		12	12
Travis, Tex	2	2	450			13,000	348	Crawford, Kans.	2	2		sh1	75	2,050	180
Victoria, Tex	1	1	400			8,000	300	Decatur, Kans.	1	1		ph1		10	10
Washington, Tex	5	5	1,250			10,500	1,183	Ellsworth, Kans.	1	1		sh1	75	80	80
Williamson, Tex	1	1	300			1,500	25	Mitchell, Kans.	1	1	200			1,400	75
								Neosho, Kans.	1	1		ph1		22	22
Total	39	35	8,485	4	730	112,740	6,643	Osborne, Kans.	2	1	40			300	30
								Phillips, Kans.	1	1	196	sh1	38	1,000	159
GERMAN SYNOD OF Iowa:								Rush, Kans.							
Arapahoe, Colo	1	1	36			100	50	Russell, Kans.	2	2		sh2	160	95	95
Adams, Ill	2	2	260			2,950	163	Sheridan, Kans.	2	2		sh2	150	193	193
Bureau, Ill	4	2	470	sh2	150	6,000	336	Sherman, Kans.	2	1	55	sh1	35	150	50
Carroll, Ill	2			h1)2 sh1)	150		100	Smith, Kans.	2	2		sh2	150	82	82
Champaign, Ill	1	1	100			450	84	Lincoln, Ky	1	1	150			800	120
Cook, Ill	3	3	1,750			42,000	1,150	McCracken, Ky	2	2	420			6,000	166
Edinburgh, Ill	1	1	350			2,150	113	Alpena, Mich	2	1	500	ph1		6,200	327
Fayette, Ill	1	1	250			1,500	109	Cheboygan, Mich	3	1	135	sh2	105	1,000	143
Ford, Ill	2	1	250	h1	100	3,000	168	Lapeer, Mich	2	2	380			4,000	87
Franklin, Ill	1	1	400			4,000	225	Lenawee, Mich	3	3	800			5,400	766
Hancock, Ill	2	2	500			5,500	240	Mackinac, Mich	1	3		sh1	45	30	30
Henry, Ill	1	1	150			600	40	Macomb, Mich	5	4	1,050	sh1	75	8,200	874
Iroquois, Ill	5	3	790	sh2	150	7,100	679	Monroe, Mich	4	4	955			9,900	647
Jo Daviess, Ill	3	2	320	sh1	80	2,700	180	Presque Isle, Mich	5	1	100	sh3)4 h1)	154	500	164
LaSalle, Ill	7	6	1,200	h1	100	16,200	807	Saint Clair, Mich	5	5	1,225			11,700	1,058
Lee, Ill	5	3	775	sh1	75	7,000	402	Shiawassee, Mich	1	1	70			1,000	40
Livingston, Ill	7	5	1,000	sh2	150	8,400	635	Washtenaw, Mich	1	1	150			800	60
Logan, Ill	2	2	500			6,500	127	Wayne, Mich	1	1	260			4,400	320
McLean, Ill	2	1	180	sh1	75	1,300	162	Faribault, Minn	1	1		sh1	50	20	20
Massac, Ill	1	1	200			1,500	100	Fillmore, Minn	5	4	675	sh1	65	4,400	640
Ogle, Ill	1	0	150			1,500	25	Freeborn, Minn	4	2	400	sh2	145	6,200	216
Peoria, Ill	4	3	950	sh1	75	22,100	486	Jackson, Minn	2	2		sh2	145	75	75
Pope, Ill	1	1	300			2,500	125	Lesueur, Minn	4	3	700	ph1		4,400	133
Stark, Ill	1	1	250			1,800	50	Mower, Minn	2	1	200	sh1	50	900	91
Union, Ill	1	1	250			2,000	130	Scott, Minn	1	1	200			1,500	154
Whiteside, Ill	1	1	250			1,200	66	Steele, Minn	5	3	840	sh2	145	4,200	815
Woodford, Ill	1	1	550			5,000	300	Waseca, Minn	3	3	520			3,850	340
Adair, Iowa	1	1	125			900	70	Bates, Mo	1	1	250			1,500	60
Allamakee, Iowa	1	1	250			1,000	321	Benton, Mo	3	3	550			4,400	392
Blackhawk, Iowa	6	4	778	h1	50	7,200	555	Cape Girardeau, Mo	1	1	200			600	116
Bremner, Iowa	8	7	1,850	sh1	60	13,500	1,798	Cole, Mo	3	3	800			10,800	303
Buchanan, Iowa	2	2	300			1,150	183	Morgan, Mo	4	4	794			4,200	323
Butler, Iowa	4	3	700	sh1	60	6,000	390	Perry, Mo	1	1	300			3,000	127
Calhoun, Iowa	1	1		sh1	45		36	Pettis, Mo	1	1	150			1,300	60
Cerro Gordo, Iowa	3			sh2)3 h1)	240		140	Vernon, Mo	2			h2	325	52	52
Chickasaw, Iowa	8	5	1,150	sh3	210	4,650	558	Boone, Nebr	2			sh2	120	61	61
Clayton, Iowa	6	5	1,350	sh1	60	10,100	872	Buffalo, Nebr	1			sh1	60	60	60
Clinton, Iowa	2	2	475			5,400	376	Cass, Nebr	1			sh1	100	27	27
Crawford, Iowa	1	1	150			1,200	70	Cedar, Nebr	3			sh3	216	33	33
Delaware, Iowa	3	1	120	sh2	120	800	210	Cheyenne, Nebr	1	1	140			500	200
Des Moines, Iowa	4	2	700			4,500	305	Dawson, Nebr	1	1	300			1,500	120
Dickinson, Iowa	2	1	100	sh1	35	600	60	Franklin, Nebr	2	2		sh2	160	195	195
Dubuque, Iowa	1	1	600			28,000	500	Frontier, Nebr	2	1	60			35	33
Fayette, Iowa	9	7	1,650	sh2	105	11,255	827	Furnas, Nebr	1	1	60			40	25
Floyd, Iowa	3	1	300	sh2	150	4,300	486	Gage, Nebr	4	3	590	sh1	80	3,750	277
Franklin, Iowa	1	1	200			2,300	100	Harlan, Nebr	1	1	100			80	44
Grundy, Iowa	1			ph1			30	Jefferson, Nebr	1	1	150			1,200	94
Hancock, Iowa	1			sh1	60		70	Johnson, Nebr	1	1	200			2,100	170
Howard, Iowa	4	2	575	h1)2 sh1)	90	1,800	200	Kearney, Nebr	1			sh1	60	27	27
Ida, Iowa	1	1	200			1,200	40	Knox, Nebr	3	1	100	sh2	120	1,000	60
Iowa, Iowa	6			sh1	50		48	Lancaster, Nebr	1	1	175			2,800	63
Jackson, Iowa	2	4	880	sh2	100	8,300	760	Nance, Nebr	1			sh1	60	19	19
Jefferson, Iowa	2	2	300			6,500	149	Nemaha, Nebr	3	3	775			5,100	400
Johnson, Iowa	4	4	650			9,200	371	Otoe, Nebr	8	3	735	sh4	225	5,711	592
Jones, Iowa	4	2	350	sh2	130	3,500	350	Saline, Nebr	1	1	110			600	45
Kossuth, Iowa	1			sh1	65		33	Saunders, Nebr	2	1	70	sh1	70	375	85
Lee, Iowa	1	1	100			1,500	25	Seward, Nebr	1	1		sh1	150	37	37
Marshall, Iowa	1	1	120			1,000	50	Sheridan, Nebr	3			ph2		77	77
Mills, Iowa	2	2	450			4,800	276	Thayer, Nebr	1	1	250			600	64
Mitchell, Iowa	2	2	750			6,500	319	Webster, Nebr	2	1	100	ph1		300	110
Muscataine, Iowa	4	3	1,175	sh1	50	18,700	630	Cass, N. Dak	5	1	70	sh4	245	1,100	171
Plymouth, Iowa	1	1	225			2,500	69	Dickey, N. Dak	1			ph1		9	9
Pocahontas, Iowa	1	1	200			2,300	115	Eddy, N. Dak	1			sh1	50	13	13
Polk, Iowa	2	2	420			4,800	106	Lamoure, N. Dak	1			sh1	100	32	32
								Logan, N. Dak	2			ph2		66	66
								McIntosh, N. Dak	10	2	200	ph1)7)8 sh1)	60	1,100	47
								Ransom, N. Dak	1			sh1	50	174	174

THE SYNODICAL CONFERENCE.

The latest and largest of the Lutheran general bodies is the Synodical Conference, organized in 1872 by representatives of the Missouri, Ohio, Wisconsin, Minnesota, Illinois, and Norwegian synods. Four of these synods, the Ohio, Wisconsin, Minnesota, and Illinois, had taken part in the organization of the General Council, but had withdrawn. The conference was intended to represent a type of Lutheran confessionalism stricter than that of the General Council, as that of the General Council was stricter than the General Synod. The following is its confessional basis:

The Synodical Conference acknowledges the canonical scriptures of the Old and New Testaments as God's Word and the Confession of the Evangelical Lutheran Church of 1580, called the Concordia, as its own.

The central body of the Synodical Conference, and the influence which constitutes the peculiar type of Lutheranism which it stands for, is the synod of Missouri, Ohio, and other states, which was organized in 1847. The nucleus of this synod was a Saxon colony of Lutherans who settled in Missouri in 1839. When the synod was constituted it embraced 12 congregations and 22 ministers, but, proclaiming a Lutheranism of the most positive character, it attracted to itself hosts of German immigrants who were dissatisfied with the result of the union of the Lutheran and Reformed religions in the Fatherland and were pleased with the absolute and unreserved acceptance of the Augsburg Confession required by the synod and with its stern antagonism to every form of syncretism (union services, union communions, union congregations) and its insistence on pure Lutheran literature, pure Lutheran services, and a pure and positive Lutheranism. Some questions which most other Lutheran bodies might consider open questions are not so held by the "Missourians", as they are called. For example, they maintain that antichrist is the Roman pontiff; that their doctrine as to the ministry and the church is the true and settled scriptural doctrine, and that all forms of chiliasm or millenarianism are to be condemned. They allow no differences on these and some other extra-confessional points; therefore their type of doctrine and practice has become known, both in this country and Germany, where it has obtained some favor, as "Missourian".

In 1881 the Joint Synod of Ohio withdrew from the Synodical Conference as the result of a controversy which arose on the doctrine of predestination, and was followed in 1882 by the Norwegian Synod. The synod of Missouri maintained that predestination to salvation is not due to God's foresight of faith in man, but faith and perseverance in faith are included in the decree. The adherents of the Ohio party opposed this as Calvinistic, and a division was the result.

The Missouri is by far the largest Lutheran synod in the United States, and embraces in its territory 31 states and the District of Columbia. It is divided into 13 districts, or subsynods, and reports 1,589 organizations, with 1,261 church edifices, valued at \$6,759,535, and 293,211 communicants. Its statistics were promptly and efficiently gathered for the Census Office by Prof. M. Guenther, of Saint Louis, who assumed the difficult task with the most ready compliance.

The Synodical Conference has 1,934 organizations, 1,531 church edifices, and 357,153 communicants. The average seating capacity of its edifices is 289, and their average value \$5,098. This is a higher average value than most denominations show, but it is lower than that reported by the General Synod, the United Synod in the South, or the General Council, and much lower than the Roman Catholic Church reports. The constituency of the Synodical Conference is almost wholly German. Services in English are, however, being extensively introduced, and exclusively English congregations have been founded.

IV.—SYNODICAL CONFERENCE EVANGELICAL LUTHERAN CHURCH.

BY COUNTIES.

COUNTIES.	Number of organi- zations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.	COUNTIES.	Number of organi- zations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.
ALABAMA:								ILLINOIS—Con'd.							
Blount	2	2	550			\$2,700	110	Hancock	1	1	350			\$8,000	235
Cullman	1	1	200			1,500	152	Henry	4	3	870			13,500	688
Jefferson	1	1	100			3,000	60	Iroquois	3	3	1,180			12,200	629
Mobile	1	1	450			5,000	222	Jackson	2	2	270			1,800	222
Total	5	5	1,300			12,200	534	Kane	4	7	3,025			65,450	2,084
ARKANSAS:								ILLINOIS—Cont'd.							
Arkansas	2	1	150			1,500	68	Kankakee	4	4	1,550			31,400	1,271
Conway	1	1	50			400	8	Kendall	2	1	200			1,800	173
Faulkner	1	1	125			400	15	Knox	1	1	192			3,500	52
Greene	1						30	Lake	1	1	50			3,285	190
Johnson	1	1	250			1,145	180	Lasalle	2	1	400			9,000	333
Logan	1						18	Livingston	3	1	120			800	144
Poinsett	1	1	40			200	12	Logan	2	2	650			9,000	743
Pope	1	1	100			500	56	McHenry	8	5	1,130			14,500	1,234
Prairie	1	1	150			900	68	McLean	4	3	1,450			27,000	1,281
Pulaski	3	3	750			28,000	465	Macoupin	3	3	1,400			30,000	833
Saline	1	1	50			500	35	Madison	10	9	3,254			41,350	2,247
Sebastian	1	1	300			3,300	271	Marion	1	1	138			700	120
Washington	1	1	200			2,500	60	Marshall	3	1	100			1,600	332
White	1						25	Mason	5	5	985			5,600	543
Total	17	13	2,165			39,345	1,311	Menard	4	2	115			1,350	216
CALIFORNIA:								ILLINOIS—Cont'd.							
Alameda	2	1	450			14,000	230	Montgomery	3	3	630			5,600	366
Los Angeles	2	2	450			10,600	268	Morgan	4	4	1,130			11,500	478
Napa	1						30	Ogle	2	2	750			9,200	543
Orange	1	1	200			3,000	120	Peoria	2	2	225			16,000	840
San Francisco	2	2	825			69,200	728	Perry	2	2	225			1,800	131
San Joaquin	1	1	150			5,000	60	Randolph	9	8	3,025			50,800	1,870
San Luis Obispo	1						36	Rock Island	4	3	1,000			15,700	1,004
Santa Clara	1						195	Saint Clair	7	7	1,825			32,000	924
Sonoma	1						35	Sangamon	5	5	1,722			40,500	986
Total	12	7	2,075			101,800	1,702	Shelby	3	3	850			4,500	656
COLORADO:								INDIANA:							
Arapahoe	1	1	175			20,000	110	Stephenson	2	2	530			4,600	318
Custer	1	1	300			2,500	80	Tazewell	2	2	650			8,850	440
La Plata	2						33	Vermillion	1	1	800			12,000	740
Logan	1						115	Wabash	1	1	250			2,500	118
Pueblo	1						56	Washington	8	8	2,715			32,450	1,464
Total	6	2	475			22,500	394	Whiteside	3	3	525			4,675	344
CONNECTICUT:								INDIANA—Cont'd.							
Fairfield	1	1	450			7,000	277	Will	7	7	2,935			37,275	2,298
Hartford	4						202	Winnebago	2	2	800			13,450	199
New Haven	2	2	1,000			20,000	605	Woodford	3	2	470			6,500	243
Tolland	1	1	450			6,500	321	Total	250	223	80,144			1,456,630	69,033
Total	8	4	1,900			33,500	1,405	INDIANA:							
DISTRICT OF CO- LUMBIA:								Adams							
Washington city	1	1	400			30,000	375	Allen	12	12	5,835			150,100	6,055
FLORIDA:								Bartholomew							
Escambia	1	1	200			4,000	80	Carrall	1	1	80			900	41
Gadsden	1						50	Cass	1	1	1,000			25,000	628
Orange	1	1	70			400	79	Clay	1	1	200			1,500	65
Total	3	2	270			4,400	209	Dearborn	3	3	1,100			19,250	887
IDAHO:								Dekalb							
Idaho	1						27	Elkhart	1	1	285			5,800	263
ILLINOIS:								Grant							
Adams	4	4	1,700			32,100	1,418	Hamilton	1	1	250			1,000	20
Alexander	1	1	200			5,000	91	Hancock	2	1	350			3,000	95
Boone	1	1	250			3,100	290	Harrison	2	2	475			1,500	260
Carroll	1	1	300			2,025	119	Howard	1	1	150			1,300	323
Cass	3	3	636			13,000	516	Huntington	2	2	550			4,000	31
Champaign	8	6	1,042			6,600	702	Jackson	5	5	1,750			10,400	343
Clinton	2	2	318			2,200	286	Jasper	1	1	120			28,500	1,317
Coles	1	1	150			1,200	98	Jay	1	1	80			500	65
Cook	55	53	29,085			732,570	32,691	Knox	2	2	660			600	32
Dekalb	3	3	800			5,100	325	Lake	8	6	2,075			13,200	380
Douglas	1	1	100			450	64	Laporte	6	5	1,875			21,900	1,314
Dupage	7	7	2,255			34,600	2,125	Marion	3	4	2,325			28,175	1,781
Efingham	9	9	2,215			16,450	1,667	Marshall	1	1	480			92,700	2,623
Fayette	4	4	1,550			8,600	677	Miami	1	1	460			5,000	204
Ford	1						25	Newton	1	1	150			10,000	255
Grundy	2	2	370			2,000	243	Noble	3	3	675			1,500	113
ILLINOIS—Cont'd.								Porter							
ILLINOIS—Cont'd.								Pulaski							
ILLINOIS—Cont'd.								Saint Joseph							
ILLINOIS—Cont'd.								Spencer							
ILLINOIS—Cont'd.								Starke							
ILLINOIS—Cont'd.								Switzerland							
ILLINOIS—Cont'd.								Tippecanoe							
ILLINOIS—Cont'd.								Tipton							
ILLINOIS—Cont'd.								Vanderburg							
ILLINOIS—Cont'd.								Vigo							
ILLINOIS—Cont'd.								Warrick							
ILLINOIS—Cont'd.								White							
ILLINOIS—Cont'd.								Whitley							
ILLINOIS—Cont'd.								Total							
ILLINOIS—Cont'd.								102							
ILLINOIS—Cont'd.								96							
ILLINOIS—Cont'd.								32,299							
ILLINOIS—Cont'd.								632,260							
ILLINOIS—Cont'd.								24,666							

IV.—SYNODICAL CONFERENCE EVANGELICAL LUTHERAN CHURCH—CONTINUED.

COUNTIES.	Number of organi- zations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.	COUNTIES.	Number of organi- zations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.
MICHIGAN—Con'd.								MISSOURI—Con'd.							
Muskegon	1	1	400			\$2,800	167	Franklin	4	4	1,230			\$16,000	746
Oakland	2	1	72			400	90	Gasconade	2	2	250			1,550	128
Oceana	3	2	365			3,150	227	Holt	2	2	450			3,700	297
Osceola	1	1	150			1,000	199	Iron	1	1	130			1,500	87
Ottawa	3	3	500			5,600	408	Jackson	2	2	300			6,000	163
Presque Isle	4	4	730			3,250	491	Jasper	1	1	300			2,500	45
Saginaw	8	7	3,489			58,200	2,949	Jefferson	4	4	700			3,000	438
Saint Clair	3	2	750			5,200	297	Lafayette	3	2	850			6,900	1,087
Saint Joseph	6	3	650			4,300	561	Lawrence	1	1	350			4,000	320
Sanilac	4	3	425			3,050	235	Lewis	2	2	500			7,500	224
Schoolcraft	1			sh1	75		37	Macou	1	1	150			1,500	60
Tuscola	3	2	650			6,000	553	Marion	3	3	695			8,300	503
Wayne	12	12	6,345			106,350	6,239	Moniteau	2	2	295			3,000	164
Total	137	100	33,731	7	450	488,880	27,472	Montgomery	1	1	300			3,000	95
MINNESOTA:								Morgan	2	2	350			750	143
Anoka	1	1	70			600	105	Osage	4	3	375			2,850	284
Benton	3	1	150			1,200	162	Perry	6	7	2,700			43,440	1,546
Blue Earth	7	6	1,185			13,400	1,125	Pettis	1	1	200			2,500	137
Brown	3	4	1,350			19,000	1,292	Phelps	1	1					137
Carlton	1			sh1	75		35	Platte	1	1	100			550	75
Carver	10	10	3,100			26,900	2,538	Randolph	1	1	250			1,300	80
Chippewa	1	1	200			2,000	74	Saint Charles	6	6	1,830			41,500	1,682
Chisago	4	3	200			700	205	Saint Clair	1	1	120			1,000	81
Clay	2						52	Sainte Genevieve	1	1	150			4,000	57
Crow Wing	1						62	Saint Francois	2	2	400			4,000	186
Dakota	3	3	850			11,300	635	Saint Louis	21	20	9,880	hl	150	360,200	7,601
Douglas	3	3	300			1,150	214	Saline	3	3	805			4,400	450
Faribault	4	4	900			6,450	406	Scott	1	1	200			3,000	175
Fillmore	1	1	200			2,500	188	Wayne	1	1	250			1,000	121
Goodhue	7	7	1,970			19,000	1,403	Webster	4	2	300			1,900	156
Hennepin	5	5	1,380			22,500	1,020	Total	118	112	32,820	1	150	613,940	22,121
Houston	6	4	425	hl	70	2,700	332	MONTANA:							
Isanti	2	2	225			1,700	92	Lewis and Clarke	1	1	225			10,000	80
Jackson	4	3	320			3,200	292	Silverbow	1						50
Kandiyohi	1	1	160			5,000	122	Total	2	1	225			10,000	130
Lac qui parle	4	2	300			2,500	396	NEBRASKA:							
Lesueur	3	2	325			5,000	410	Adams	3	2	200			2,100	239
Lyon	3			ph2			182	Antelope	1	1	150			800	63
McLeod	7	7	1,225			12,600	1,152	Blaine	1						48
Martin	3	1	250			2,000	292	Boxbulte	1						37
Meeker	4	2	160	sh2	230	2,400	270	Brown	1						50
Millac	1	1	120			300	40	Buffalo	1	2	550			3,500	167
Morrison	2	1	100			500	60	Burt	2	1	175			1,000	155
Mower	2	2	275			1,850	250	Butler	2	1	120			1,000	152
Murray	2	1	120			1,000	208	Cass	1	1	300			1,300	208
Nicollet	4	3	1,650	sh1	75	11,400	949	Chase	1	1					141
Nobles	1						30	Cherry	1	1	150			800	58
Norman	2	1	90			500	139	Cheyenne	2	1					65
Olmsted	2	2	650			5,600	518	Colfax	1	1	100			1,000	30
Ottertail	8	6	800			2,900	421	Cuming	8	8	1,008			10,985	836
Pine	2	2	500			1,400	126	Dawes	2	2	300			1,100	75
Polk	4	1	140			550	172	Dixon	3	2	800			7,300	589
Ramsey	10	7	3,370	h2	200	146,600	3,183	Dodge	6	5	800			19,275	555
Redwood	3	1	300	h2	30	600	210	Douglas	6	3	660			500	114
Renville	8	4	850	sh2	132	7,850	688	Franklin	3	1	80			500	23
Rice	4	4	890			8,100	634	Frontier	1	1					200
Saint Louis	2			h2	150		36	Furnas	2	1	130			750	111
Scott	6	4	818	sh1	75	8,460	1,123	Gage	1	1	230			1,560	107
Sibley	8	8	2,030			16,250	1,321	Gosper	3	2					28
Stearns	5	2	330			3,000	267	Greeley	1	1					160
Steele	2	1	200			1,600	170	Hall	1	1	200			3,000	388
Swift	2	1	300			500	236	Hamilton	2	2	676			8,000	332
Todd	3	2	235			1,000	233	Harlan	2	1	100			500	33
Traverse	4	2	335	ph1		1,950	331	Hayes	1	1	60			80	37
Wabasha	7	4	545			2,900	618	Hitchcock	1	1	100			650	56
Wasca	6	4	750			6,000	584	Holt	2	1	225			3,000	332
Washington	4	5	1,238			8,300	936	Jefferson	2	1				1,750	141
Watonwan	3	3	365			3,440	178	Johnson	2	2	300			1,300	130
Winona	8	6	2,650	sh1	75	34,900	2,444	Kearney	3	1	120			1,600	160
Wright	5	5	680			4,450	472	Knox	4	4	845			9,500	668
Yellow Medicine	4	3	700	sh1	75	5,550	255	Lancaster	1	1				15,500	1,158
Total	217	159	36,346	19	1,187	443,700	30,398	Madison	7	5	1,650			300	89
MISSOURI:								Merrick	1	1	100			1,000	23
Audrain	2	1	125			700	55	Nemaha	1	1	150			1,300	28
Barry	1	1	150			800	65	Nuckolls	1	1	50			1,650	185
Barton	1	1	300			800	50	Page	1	1	250			6,000	143
Bates	1	1	140			1,000	134	Pawnee	1	1	500				87
Benton	6	6	1,700			9,000	981	Perkins	1	1					27
Buchanan	1	1	250			3,575	168	Phelps	1	1					200
Cape Girardeau	8	8	3,175			33,100	1,791	Pierce	1	1	250			3,000	200
Carroll	2	2	430			5,000	312	Platte	6	4	615			8,250	574
Chariton	3	3	630			5,800	278	Redwillow	2	2	120			3,500	220
Cole	4	4	850			8,925	551	Richardson	2	1	250			800	165
Cooper	2	2	330			3,000	345	Saline	2	1	110				
Dade	2	2	320			2,400	228								

IV.—SYNODICAL CONFERENCE EVANGELICAL LUTHERAN CHURCH—CONTINUED.

COUNTIES.	Number of organi- zations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.	COUNTIES.	Number of organi- zations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.
NEBRASKA—Con'd.															
Sapry	1	1	175			\$2,500	80	OREGON:							
Saunders	2	1	150			1,500	116	Multnomah	2	1	200			\$5,000	105
Seward	2	7	1,044			15,075	961	Umatilla	1						48
Sherman	3	3	210			820	72	Washington	2	2	140			1,300	121
Stanton	2	2	500			2,700	225	Total	5	3	340			6,300	274
Thayer	2	4	740			6,325	458	PENNSYLVANIA:							
Washington	2	2	675			8,300	401	Allegheny	12	11	5,800	h1	100	194,450	4,432
Wayne	2	3	345			4,550	288	Beaver	1	1	120			2,000	36
Webster	2	2	300			1,550	198	Butler	2	2	600			5,200	204
York	4	3	425			3,400	357	Clearfield	1	1	200			2,000	160
Total	135	93	16,788			168,570	12,339	Erie	2	2	720			9,255	421
NEW JERSEY:								Fulton	1	1	100			600	52
Bergen	1	1	200			5,000	70	Jefferson	2	2	420			3,500	174
Hudson	2	2	770			17,500	245	Philadelphia	1	1	400			35,000	340
Passaic	2	2	350			9,500	384	Somerset	3	3	427			1,900	160
Total	5	5	1,320			32,000	699	York	1	1	850			30,000	490
NEW YORK:								Total	26	25	9,697	1	100	284,915	6,559
Albany	2	2	1,300			61,300	1,314	SOUTH DAKOTA:							
Allegany	2	2	550			6,330	463	Aurora	2	1	100			1,200	82
Cattaraugus	6	6	1,410			20,700	1,012	Beadle	2	1	108			500	118
Chautauque	2	2	330			3,850	132	Bonhomme	2	1	80			500	109
Columbia	2	2	450			16,200	289	Brown	8	2	275			1,600	405
Erie	13	13	4,762			113,160	4,514	Brule	1						83
Fulton	1	1	225			1,000	155	Campbell	1						51
Herkimer	1	1	450			6,000	148	Clark	2			sh2	150		42
Kings	5	5	3,550			200,000	2,914	Codington	5	3	1,200	sh2	150	2,100	125
Monroe	2	2	900			19,000	559	Davison	2						25
New York	6	6	3,757			490,000	6,159	Day	3						60
Niagara	10	9	2,882			42,715	2,353	Deuel	4			sh4	300		119
Oneida	2	2	750			3,600	495	Douglas	2	1	240			1,500	131
Orleans	2	2	450			5,000	169	Edmunds	1						16
Queens	2	2	500			9,600	314	Faulk	3	1	60			100	107
Richmond	1	1	250			3,000	274	Grant	5	2	190	sh1	75	1,150	270
Rochland	1	1	300			3,500	200	Hamlin	1			sh1	75		35
Schenectady	1	1	350			9,000	437	Hanson	1						41
Stuten	1	1	150			500	113	Hughes	1						90
Suffolk	1	1	300			5,000	190	Hutchinson	5	2	500			2,700	271
Ulster	1	1	450			20,000	322	Jerauld	1						31
Wayne	1						23	Lake	2	2	450			1,800	83
Westchester	2	2	420			16,000	153	McCook	1						79
Total	67	65	24,406			1,055,455	22,642	Marshall	1						59
NORTH DAKOTA:								Miner	2	1	350			1,200	85
Bottineau	1	1	65			300	55	Minebaha	2	2	400			3,570	195
Dickey	1	1	60			200	51	Roberts	1	1	75			600	33
Lamoure	2						69	Spink	3	1	60	sh1	75	600	63
Oliver	1						38	Sully	1						33
Pembina	2	1	225			2,300	115	Turner	2	1	90			450	101
Ramsey	1						32	Union	1						29
Richland	4	2	300			3,250	335	Yankton	3	2	190			1,200	122
Sargent	1						45	Total	71	24	4,368	11	825	20,770	3,097
Trail	3						251	TENNESSEE:							
Walsh	2						85	Hamilton	1	1	150			5,110	75
Total	18	5	650			6,050	1,136	Shelby	1	1	400			25,000	152
OHIO:								Total	2	2	550			30,110	227
Anglaize	1	1	200			2,400	137	TEXAS:							
Cuyahoga	10	11	6,025			156,500	7,486	Brazos	1						41
Deaance	5	5	1,105			22,525	719	Burleson	1	1	60			150	20
Fairfield	2	2	700			5,600	323	Coryell	2	1	75			400	72
Franklin	3	3	800			15,300	485	Dallas	1						90
Fulton	1	1	200			3,000	80	Falls	1	1	100			500	94
Hamilton	3	3	1,280			67,700	1,069	Fannin	1	1	100			425	63
Henry	6	6	1,775			13,500	967	Fayette	5	4	750			4,930	576
Hocking	2	2	525			3,600	141	Grimes	1	1	120			6,600	140
Holmes	3	3	675			2,100	131	Hamilton	2						239
Lawrence	1	1	260			5,400	225	Harris	4	4	1,250			9,600	700
Lorain	2	2	725			22,000	623	Lee	5	5	1,825			12,800	1,100
Lucas	2	2	570			11,200	600	Madison	1						38
Mahoning	1	1	400			10,000	154	Waller	1	1	100			250	50
Medina	1	1	300			3,500	92	Washington	2	2	300			1,010	275
Meigs	1	1	200			2,000	110	Total	28	21	4,680			30,075	3,498
Muskingum	1	1	600			32,000	358	VIRGINIA:							
Ottawa	1	1	150			2,000	61	Albemarle	1	1	75			1,200	24
Summit	1	1	575			20,000	798	Alexandria	1	1	100			2,615	39
Union	1	1	400			3,500	450	Augusta	1	2	700			5,000	120
Van Wert	4	4	635			4,750	384	Henrico	1	1	400			12,000	207
Wayne	1	1	150			900	25	Total	4	5	1,275			20,815	399
Williams	1	1	80			500	16								
Total	54	55	18,330			409,975	15,440								

IV.—SYNODICAL CONFERENCE EVANGELICAL LUTHERAN CHURCH—CONTINUED.

COUNTIES.							STATES, ETC.								
	Number of organi- zations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.		Number of organi- zations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.
WEST VIRGINIA:															
Pendleton	4	13/4	300	sh2	150	\$300	121	Michigan	137	109	33,731	7	450	\$488,880	27,472
WISCONSIN:															
Adams	1						46	Minnesota	217	159	36,346	19	1,187	443,700	30,398
Ashland	4	3	480			4,165	556	Missouri	118	112	32,820	1	150	613,940	22,121
Barron	6	1	50	sh3	170	60	321	Montana	2	1	225			10,000	130
Brown	5	5	1,760			22,000	1,184	Nebraska	135	93	16,788			168,570	12,339
Buffalo	3	3	490			1,150	339	New Jersey	5	5	1,320			32,000	699
Calumet	4	4	1,360			10,700	721	New York	67	65	24,406			1,055,455	22,642
Chippewa	9	5	1,015	ph3		9,600	464	North Dakota	18	5	650			6,050	1,136
Clark	8	6	1,225			6,600	861	Ohio	54	55	18,330			409,975	15,440
Columbia	7	6	2,385	h1	300	22,980	2,265	Oregon	5	3	340			6,300	274
Crawford	1	1	200			1,500	160	Pennsylvania	26	25	9,697	1	100	284,915	6,559
Dane	1	1	150			800	120	South Dakota	71	24	4,368	11	825	20,770	3,097
Dodge	27	27	7,141			65,550	5,054	Tennessee	2	2	550			30,110	227
Door	2	2	250			600	302	Texas	28	21	4,680			30,675	3,498
Dunn	6	4	895	sh2	75	11,350	718	Virginia	4	5	1,275			20,815	399
Eau Claire	9	7	1,467			10,750	890	West Virginia	4	13/4	300	2	150	300	121
Florence	1						50	Wisconsin	388	331 1/4	98,193	26	1,500	1,306,303	83,942
Fond du Lac	9	7	1,800	sh1	75	11,875	1,605	Total	1,934	1,531	443,185	67	4,362	7,804,313	357,153
Forest	2			ph1,2 sh1	75		75	BY SYNODS.							
Grant	2	2	600			6,100	292	MINNESOTA:							
Green Lake	7	7	1,000			11,600	1,950	Blue Earth, Minn.	2	2	425			5,000	550
Jackson	1						10	Brown, Minn.	3	4	1,350			19,000	1,292
Jefferson	12	12	5,000			84,000	5,307	Dakota, Minn.	3	3	850			11,300	635
Jincau	3	3	420			2,050	403	Goodhue, Minn.	3	3	950			12,300	609
Kenosha	6	4	860	sh1	80	14,600	940	Hennepin, Minn.	2	2	600			5,500	510
Kewaunee	7	7	1,705			15,350	1,400	Houston, Minn.	6	4	425	sh1	70	2,700	332
Lacrosse	6	6	2,150			33,000	1,889	Lesueur, Minn.	2	2	325			5,000	260
Langlade	4	3	275	sh1	75	2,200	199	Lyon, Minn.	3			ph2			182
Lincoln	6	4	1,450			4,900	632	McLeod, Minn.	3	3	255			5,600	466
Manitowoc	16	15	4,745	sh1	75	61,300	3,944	Meeker, Minn.	3	1	100	sh2	230	200	240
Marathon	15	14	3,845	ph1		22,400	2,199	Nicollet, Minn.	3	2	650	sh1	75	2,400	545
Marquette	8	4	850	sh4	275	6,400	695	Pine, Minn.	1	1	300			400	50
Marquette	8	8	2,450			10,850	1,403	Ramsey, Minn.	7	4	2,220	sh2	200	111,000	2,663
Milwaukee	26	26	15,880			508,500	19,209	Redwood, Minn.	3	1	300	ph1,2 h1,2	30	600	210
Monroe	9	8	1,875	sh1	75	15,300	1,610	Renville, Minn.	8	4	850	sh2	132	7,850	688
Oconto	3	3	675			1,700	243	Rice, Minn.	1	1	100			300	80
Oneda	4	1	300	ph2,3 sh1	75	300	22	Scott, Minn.	5	3	650	sh1	75	8,200	970
Outagamie	14	13	2,390			19,115	1,735	Sibley, Minn.	3	3	625			3,450	456
Ozaukee	5	4	1,344			21,300	1,085	Traverse, Minn.	2	1	270	ph1		1,000	105
Pepin	1	1	80			250	22	Wabasha, Minn.	3	3	455			2,400	345
Pierce	1	1	150			1,600	76	Washington, Minn.	3	3	838			6,000	641
Polk	2	1	250	sh1	75	700	193	Watowan, Minn.	1	1	125			1,940	28
Portage	7	4 1/2	1,100			4,600	909	Winona, Minn.	1			sh1	75		127
Price	1	1	350			3,500	80	Wright, Minn.	2	2	160			1,200	93
Racine	6	5 1/4	1,800			22,200	1,709	Yellow Medicine, Minn.	3	2	500	sh1	75	3,550	217
Richland	3	3	343			825	210	Clark, S. Dak.	2			sh2	150		42
Rock	6	4	1,465			19,850	1,226	Codington, S. Dak.	5	3	1,200	sh2	150	2,100	125
Saint Croix	2						154	Deuel, S. Dak.	4			sh4	300		119
Sauk	12	11	2,348	sh1	75	13,550	1,852	Grant, S. Dak.	1			sh1	75		25
Shawano	14	11	2,420			14,900	2,452	Hamlin, S. Dak.	1			sh1	75		35
Sheboygan	13	13	4,425			72,875	3,998	Spink, S. Dak.	1			sh1	75		15
Taylor	3	1	100			300	238	Total	90	58	14,523	27	1,787	218,990	12,655
Walworth	4	3	460			8,600	596	MISSOURI, OHIO, AND OTHER STATES:							
Washburn	1	1	150			600	77	Blount, Ala.	2	2	550			2,700	110
Washington	12	12	2,635			30,950	1,880	Cullman, Ala.	1	1	200			1,500	152
Waukesha	5	4 1/2	1,475			29,000	890	Jefferson, Ala.	1	1	100			3,000	50
Waupaca	12	12	3,770			19,560	2,205	Mobile, Ala.	1	1	450			5,000	222
Waushara	5	3	875			4,700	1,027	Arkansas, Ark.	2	1	150			1,500	68
Winnebago	6	6	3,000			29,238	2,167	Conway, Ark.	1	1	50			400	8
Wood	8	7	1,685			7,960	1,083	Faulkner, Ark.	1	1	125			400	15
Total	388	331 1/4	98,193	26	1,500	1,306,303	83,942	Greene, Ark.	1						30
SUMMARY BY STATES, ETC.															
STATES, ETC.															
Alabama	5	5	1,300			12,200	534	Johnson, Ark.	1	1	250			1,145	180
Arkansas	17	13	2,165			39,345	1,311	Logan, Ark.	1						18
California	12	7	2,075			101,800	1,702	Poinsett, Ark.	1	1	40			200	12
Colorado	6	2	475			22,500	394	Pope, Ark.	1	1	100			500	56
Connecticut	8	4	1,900			33,500	1,405	Prairie, Ark.	1	1	150			900	68
District of Columbia	1	1	400			30,600	375	Pulaski, Ark.	3	3	750			28,100	465
Florida	3	2	270			4,400	209	Saline, Ark.	1	1	50			600	35
Idaho	1						27	Sebastian, Ark.	1	1	300			3,300	271
Illinois	250	223	80,144			1,456,630	69,033	White, Ark.	1						25
Indiana	102	96	32,290			632,260	24,666	Alameda, Cal.	2	1	450			14,000	230
Iowa	139	82	18,452			194,715	13,252	Los Angeles, Cal.	2	2	450			10,500	268
Kansas	71	47	8,974			95,030	5,906	Napa, Cal.	1						120
Kentucky	3	3	900			9,800	468	Orange, Cal.	1	1	200			3,000	130
Louisiana	11	11	3,375			59,400	2,452	San Francisco, Cal.	2	2	825			69,200	728
Maryland	14	12	4,862			129,975	3,208	San Joaquin, Cal.	1	1	150			5,000	60
Massachusetts	10	6	1,575			54,000	1,717	San Luis Obispo, Cal.	1						36
								Santa Clara, Cal.	1						185

IV.—SYNODICAL CONFERENCE EVANGELICAL LUTHERAN CHURCH—CONTINUED.

SYNODS.	Number of organi- zations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.	SYNODS.	Number of organi- zations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.
MISSOURI, OHIO, AND OTHER STATES— Con'd.								MISSOURI, OHIO, AND OTHER STATES— Con'd.							
Sonoma, Cal.	1						35	Jasper, Ind.	1	1	120			\$500	65
Arapahoe, Colo.	1	1	175			\$20,000	110	Jay, Ind.	1	1	80			500	32
Ouster, Colo.	1	1	300			2,500	80	Knox, Ind.	2	2	60			13,200	380
La Plata, Colo.	2						32	Lake, Ind.	3	3	1,075			21,900	1,314
Logan, Colo.	1						115	Laporte, Ind.	6	5	1,875			28,175	1,781
Pueblo, Colo.	1						56	Marion, Ind.	3	4	1,325			92,700	2,323
Fairfield, Conn.	1	1	450			7,000	277	Marshall, Ind.	1	1	480			5,000	204
Hartford, Conn.	4						202	Miami, Ind.	1	1	400			10,000	255
New Haven, Conn.	2	2	1,000			20,000	605	Newton, Ind.	1	1	150			1,500	113
Tolland, Conn.	1	1	450			6,500	321	Noble, Ind.	3	3	675			10,800	406
Washington, D. C.	1	1	400			30,000	375	Porter, Ind.	3	3	750			7,175	601
Escambia, Fla.	1	1	200			4,000	80	Pranski, Ind.	3	3	375			1,700	222
Gadsden, Fla.	1						50	Saint Joseph, Ind.	3	3	775			13,000	462
Orange, Fla.	1	1	70			400	79	Spencer, Ind.	1	1	384			3,500	217
Idaho, Idaho	1						27	Starke, Ind.	4	2	375			2,275	274
Adams, Ill.	4	4	1,700			32,100	1,418	Switzerland, Ind.	1	1	275			1,800	199
Alexander, Ill.	1	1	200			5,000	91	Tipton, Ind.	1	1	600			20,000	305
Boone, Ill.	1	1	280			3,100	200	Tipton, Ind.	1	1	100			1,000	77
Carroll, Ill.	1	1	300			2,025	119	Vanderburg, Ind.	6	6	300			50,300	1,368
Cass, Ill.	3	3	636			13,000	516	Vigo, Ind.	1	1	600			25,000	380
Champaign, Ill.	7	5	862			5,600	600	Warrick, Ind.	1	1	300			1,000	80
Clinton, Ill.	2	2	318			2,200	286	White, Ind.	1	1	300			2,000	285
Coles, Ill.	1	1	150			1,200	48	Whitley, Ind.	2	2	280			2,885	151
Cook, Ill.	55	53	29,085			732,570	32,601	Adair, Iowa	3	3	775			2,000	114
DeKalb, Ill.	3	3	800			5,100	325	Audubon, Iowa	4	4	175			2,000	185
Douglas, Ill.	1	1	100			4,450	64	Benton, Iowa	1	1	125			8,150	571
DuPage, Ill.	7	7	2,255			34,000	2,125	Blackhawk, Iowa	1	1	125			1,800	42
Effingham, Ill.	9	9	2,215			16,450	1,667	Boone, Iowa	3	3	600			10,700	509
Fayette, Ill.	4	4	1,550			8,600	677	Bremer, Iowa	3	3	750			7,500	576
Ford, Ill.	1						25	Buchanan, Iowa	1	1	100			7,000	129
Grundy, Ill.	2	2	370			2,000	24	Buena Vista, Iowa	2	2	600			7,000	350
Hancock, Ill.	1	1	350			8,000	255	Calhoun, Iowa	3	2	280			1,300	175
Henry, Ill.	4	3	870			13,500	655	Carroll, Iowa	6	3	600			5,375	489
Irving, Ill.	3	3	1,180			12,200	658	Cedar, Iowa	2	2	1			1,100	156
Jackson, Ill.	2	2	270			1,800	222	Cherokee, Iowa	4	3	725			3,500	307
Kane, Ill.	9	7	3,025			65,450	2,064	Clay, Iowa	2	2	2			8,000	318
Kankakee, Ill.	4	4	1,550			31,400	1,271	Clinton, Iowa	3	3	575			4,175	333
Kendall, Ill.	2	2	200			1,800	173	Crawford, Iowa	6	2	700			8,800	628
Knox, Ill.	1	1	150			3,500	52	Dallas, Iowa	4	2	350			3,500	151
Lake, Ill.	1	1	100			3,285	104	Delaware, Iowa	1	1	125			1,000	142
Laud, Ill.	2	2	400			9,000	333	Dubuque, Iowa	5	5	590			5,500	405
Livingston, Ill.	3	3	120			8,800	144	Fayette, Iowa	1	1	69			400	52
Logan, Ill.	2	2	650			9,000	743	Floyd, Iowa	1	1					39
McHenry, Ill.	8	8	1,130			14,500	1,234	Franklin, Iowa	1	1	100			1,500	171
McLean, Ill.	4	3	1,450			57,000	1,281	Frederick, Iowa	1	1					21
Macoupin, Ill.	3	3	1,400			30,000	833	Greene, Iowa	2	2					67
Madison, Ill.	9	9	3,254			41,350	2,247	Grundy, Iowa	1	1					159
Marion, Ill.	10	1	138			700	120	Guthrie, Iowa	2	2	1			3,000	123
Marshall, Ill.	3	1	100			1,600	352	Hamilton, Iowa	1	1	200			1,000	74
Mason, Ill.	5	5	685			5,600	543	Hancock, Iowa	3	2					282
McNair, Ill.	4	4	115			1,350	216	Hardin, Iowa	3	2	700			3,200	130
Monroe, Ill.	3	3	630			5,600	306	Harrison, Iowa	1	1	200			2,000	59
Montgomery, Ill.	4	4	1,130			11,500	478	Howard, Iowa	1	1					59
Morgan, Ill.	5	4	882			9,200	543	Humboldt, Iowa	1	1	150			800	106
Ogle, Ill.	2	2				16,000	164	Ida, Iowa	3	3	500			4,300	160
Peoria, Ill.	2	2	770			1,800	131	Iowa, Iowa	4	3	764			7,700	649
Perry, Ill.	2	2	225			50,800	1,870	Johnson, Iowa	2	2	225			4,700	133
Randolph, Ill.	9	8	3,025			15,700	1,004	Jones, Iowa	1	1	200			2,700	148
Rock Island, Ill.	4	4	1,000			32,000	924	Keokuk, Iowa	1	1	150			800	150
Saint Clair, Ill.	7	7	1,825			35,500	951	Kossuth, Iowa	4	2	700			4,150	670
Sangamon, Ill.	4	4	1,422			4,500	656	Linn, Iowa	2	2	250			2,000	60
Shelby, Ill.	3	3	850			4,500	318	Lyon, Iowa	2	2					151
Stephenson, Ill.	2	2	530			8,850	449	Marion, Iowa	1	1	250			1,600	131
Tazewell, Ill.	2	2	650			12,000	740	Marshall, Iowa	3	1	400			4,000	450
Union, Ill.	1	1	800			2,500	118	Mills, Iowa	1	1					28
Wabash, Ill.	1	1	250			32,450	1,464	Mitchell, Iowa	3	2	350			2,200	28
Washington, Ill.	8	8	2,715			4,675	344	Monona, Iowa	1	1					38
Whiteside, Ill.	3	3	625			37,275	2,298	Montgomery, Iowa	1	1					17
Will, Ill.	2	2	2,035			13,450	169	Muscatine, Iowa	1	1	128			1,000	87
Winnebago, Ill.	2	2	470			6,500	243	O'Brien, Iowa	1	1	700			8,500	351
Woodford, Ill.	3	3	470			29,800	1,120	Osceola, Iowa	3	1	125			700	121
Adams, Ind.	5	5	1,580			150,100	6,055	Page, Iowa	2	2	380			4,750	251
Allen, Ind.	12	12	5,835			19,000	1,298	Plymouth, Iowa	4	4	750			6,000	419
Bartholomew, Ind.	5	5	1,670			1,900	41	Pottawattamie, Iowa	3	1	95			1,500	187
Carroll, Ind.	1	1	1,000			25,000	628	Sac, Iowa	5	5	655			4,500	389
Cass, Ind.	1	1	200			1,500	65	Scott, Iowa	1	1	200			5,000	275
Clay, Ind.	1	1	1,000			10,250	887	Shelby, Iowa	2	2					37
Dearborn, Ind.	3	3	1,100			5,800	263	Shoux, Iowa	5	3	570			5,355	314
DeKalb, Ind.	3	3	610			6,000	163	Washington, Iowa	1	1	120			1,000	43
Elkhart, Ind.	1	1	285			1,000	20	Webster, Iowa	4	3	575			16,700	546
Grant, Ind.	1	1	100			3,000	95	Woodbury, Iowa	1	1	225			10,000	181
Hamilton, Ind.	1	1	250			1,500	200	Wright, Iowa	1	1					25
Hancock, Ind.	2	2	350			1,300	323	Allen, Kans.	1	1	125			1,500	111
Harrison, Ind.	2	2	475			4,000	51	Bartholomew, Kans.	3	1	600			14,000	277
Howard, Ind.	1	1	150			10,400	343	Barton, Kans.	3	1	100			1,400	155
Huntington, Ind.	2	2	550			28,500	1,317	Brown, Kans.	1	1	200			1,000	69
Jackson, Ind.	5	5	1,750												

IV.—SYNODICAL CONFERENCE EVANGELICAL LUTHERAN CHURCH—CONTINUED.

SYNODS.							SYNODS.						
Number of organi- zations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.	Number of organi- zations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.
MISSOURI, OHIO, AND OTHER STATES— Con'd.							MISSOURI, OHIO, AND OTHER STATES— Con'd.						
Chase, Kans	1	120			\$2,000	106	Ottawa, Mich	3	3	500		\$5,600	408
Cheyenne, Kans	1	75			400	101	Presque Isle, Mich	4	4	730		3,250	401
Clay, Kans	1	60			500	34	Saginaw, Mich	8	7	3,480		58,200	2,949
Colby, Kans	1					16	Saint Clair, Mich	3	3	750		5,200	297
Crawford, Kans	2	700			4,200	196	Saint Joseph, Mich	6	3	650		4,300	561
Deatur, Kans	1	80			150	46	Sandiac, Mich	4	3	425		3,050	235
Dickinson, Kans	3	600			3,300	324	Tuscola, Mich	3	3	650		6,000	553
Edwards, Kans	1	130			380	33	Wayne, Mich	12	12	6,345		106,350	6,239
Ellis, Kans	1					18	Anoka, Minn	1	1	70		600	108
Ellsworth, Kans	3	500			4,000	293	Beuton, Minn	3	1	150		1,200	162
Ford, Kans	1					43	Blue Earth, Minn	5	4	760		8,400	575
Gary, Kans	2	270			3,000	179	Carver, Minn	10	10	3,100		26,900	2,538
Harvey, Kans	2	160			1,300	199	Chippewa, Minn	1	1	200		2,000	74
Leavenworth, Kans	2	475			7,500	450	Chicago, Minn	4	3	200		700	205
Lincoln, Kans	2	245			1,100	205	Clay, Minn	1					52
Logan, Kans	1					85	Crow Wing, Minn	2	2				72
McPherson, Kans	2	304			2,800	164	Douglas, Minn	3	3	300		1,150	214
Marion, Kans	3	225			3,900	286	Faribault, Minn	4	4	900		5,450	406
Marshall, Kans	1	450			5,000	489	Fillmore, Minn	1	1	200		2,500	188
Meade, Kans	1	100			100	40	Goodhue, Minn	4	4	1,020		6,700	794
Miami, Kans	1	400			4,000	130	Hennepin, Minn	3	3	780		17,000	610
Montgomery, Kans	1	150			1,500	72	Isanti, Minn	2	2	225		1,700	62
Morris, Kans	4					70	Jackson, Minn	4	3	320		3,200	292
Nemaha, Kans	1	100			2,000	79	Kandiyohi, Minn	1	1	160		500	122
Osborne, Kans	1					36	Lac qui parle, Minn	4	2	300		2,500	396
Pottawatomie, Kans	2	300			2,100	179	Lesueur, Minn	1	1				150
Rawlins, Kans	2	180			850	124	McLeod, Minn	4	4	970		7,000	686
Reno, Kans	1					94	Martin, Minn	3	1	250		2,000	292
Rice, Kans	1					26	Meeker, Minn	1	1	60		200	30
Sedgwick, Kans	1					38	Millelac, Minn	1	1	120		300	40
Shawnee, Kans	1	500			10,000	171	Morrison, Minn	2	2	100		500	60
Stafford, Kans	1					18	Mower, Minn	2	2	275		1,850	250
Wabunsee, Kans	4	3	450		3,150	236	Murray, Minn	2	1	120		1,000	208
Washington, Kans	6	5	915		7,050	634	Nicollet, Minn	1	1	1,000		9,000	404
Wichita, Kans	1					15	Nobles, Minn	1					30
Woodson, Kans	1	100			1,000	40	Norman, Minn	2	2	90		500	139
Wyandotte, Kans	1	50			1,250	75	Olmsted, Minn	2	1	650		5,500	518
Boyd, Ky	1	200			2,000	155	Otertail, Minn	8	6	800		2,950	921
Jefferson, Ky	2	700			7,800	313	Pine, Minn	1	1	200		1,000	76
Calcasieu, La	1	125			2,000	25	Polk, Minn	4	1	140		550	172
Jefferson, La	1	200			2,200	150	Ramsey, Minn	3	3	1,150		34,500	520
Orleans, La	8	2,800			52,900	1,977	Rice, Minn	3	3	790		7,800	554
Alleghany, Md	3	280			6,200	188	Scott, Minn	1	1	168		260	153
Baltimore, Md	6	3,320			110,175	2,524	Sibley, Minn	5	5	1,435		12,800	865
Carroll, Md	2	412			2,700	190	Stearns, Minn	5	5	330		3,600	207
Garrett, Md	2	350			1,900	211	Steele, Minn	2	1	200		1,500	170
Bristol, Mass	1					30	Swift, Minn	2	1	300		500	236
Hampden, Mass	2	300			8,000	380	Todd, Minn	3	2	235		1,600	233
Plymouth, Mass	1					80	Traverse, Minn	2	1	65		950	226
Suffolk, Mass	4	5	1,275		46,000	1,176	Wabasha, Minn	4	1	80		500	273
Worcester, Mass	2					51	Waseca, Minn	6	4	750		6,000	584
Alpena, Mich	1	300			2,800	168	Washington, Minn	1	2	400		2,300	285
Bay, Mich	7	1,665			21,850	1,636	Watonwan, Minn	2	2	240		1,500	150
Berrien, Mich	1	500			7,000	412	Winoua, Minn	3	2	600		4,000	507
Branch, Mich	2	300			2,000	120	Wright, Minn	3	3	500		3,250	379
Clinton, Mich	3	664			8,600	310	Yellow Medicine, Minn	1	1	200		2,000	38
Emmet, Mich	2					70	Andrain, Mo	2	1	125		700	55
Genesee, Mich	1					22	Barry, Mo	1	1	150		800	65
Gogebic, Mich	2					117	Bates, Mo	1	1	140		1,000	134
Grand Traverse, Mich	3	360			3,530	220	Benton, Mo	6	6	1,700		9,000	981
Gratiot, Mich	1	130			800	60	Buchanan, Mo	1	1	250		3,575	168
Hilledale, Mich	1	250			1,500	143	Cape Girardeau, Mo	8	8	3,175		33,100	1,791
Houghton, Mich	3	900			8,000	465	Carroll, Mo	2	2	430		5,000	278
Huron, Mich	8	7	1,685		13,275	1,637	Chariton, Mo	3	3	630		5,800	312
Ingham, Mich	1	500			8,000	264	Cole, Mo	4	4	850		8,925	551
Ionia, Mich	1	300			2,300	225	Cooper, Mo	2	2	330		3,000	345
Iosco, Mich	1	350			3,500	197	Dade, Mo	2	2	320		2,400	228
Isabella, Mich	1	60			400	26	Franklin, Mo	4	4	1,230		10,000	746
Jackson, Mich	1	350			6,500	379	Gasconade, Mo	2	2	260		1,550	128
Kent, Mich	2	1,200			46,000	933	Holt, Mo	2	2	450		3,700	297
Lapeer, Mich	2	200			1,600	158	Iron, Mo	1	1	150		1,500	87
Leelanaw, Mich	2	250			1,600	185	Jackson, Mo	2	2	300		6,000	163
Lenawee, Mich	2	575			11,500	461	Jasper, Mo	1	1	300		2,500	45
Macomb, Mich	10	9	3,060		65,925	2,858	Jefferson, Mo	4	4	700		3,000	438
Manistee, Mich	3	3	950		11,500	921	Lafayette, Mo	3	2	850		6,900	1,087
Marquette, Mich	2	2	550		6,000	140	Lawrence, Mo	1	1	350		4,000	320
Mason, Mich	2	2	380		6,300	304	Lewis, Mo	2	2	500		7,500	224
Macosta, Mich	2	2	305		1,800	343	Macon, Mo	1	1	150		1,500	60
Midland, Mich	1	1	150		350	27	Marion, Mo	3	3	695		8,300	593
Mourou, Mich	5	4	1,475		11,950	1,129	Montiteau, Mo	2	2	295		3,000	164
Montcalm, Mich	1	1	130		1,000	63	Montgomery, Mo	1	1	300		3,000	95
Montmorency, Mich	2					41	Morgan, Mo	2	2	350		2,750	143
Muskegon, Mich	1	1	400		2,800	167	Osage, Mo	4	3	375		2,850	284
Oakland, Mich	2	1	72		400	90	Perry, Mo	6	7	2,700		43,440	1,546
Oceana, Mich	3	2	365		3,150	227	Pettis, Mo	1	1	200		2,500	137
Osceola, Mich	1	1	150		1,000	199	Phelps, Mo	1					137

IV.—SYNODICAL CONFERENCE EVANGELICAL LUTHERAN CHURCH—CONTINUED.

SYNODS.	Number of organizations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.	SYNODS.	Number of organizations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.
MISSOURI, OHIO, AND OTHER STATES—Cont'd.								MISSOURI, OHIO, AND OTHER STATES—Cont'd.							
Platte, Mo.	1	1	100			\$550	75	Rockland, N. Y.	1	1	300			\$3,500	200
Randolph, Mo.	1	1	250			1,300	80	Schenectady, N. Y.	1	1	350			9,000	437
Saint Charles, Mo.	6	6	1,830			41,500	1,082	Stouhen, N. Y.	1	1	150			500	112
Saint Clair, Mo.	1	1	120			1,000	81	Suffolk, N. Y.	1	1	300			5,000	190
Sainte Genevieve, Mo.	1	1	150			4,000	57	Ulster, N. Y.	1	1	450			20,000	322
Saint Francois, Mo.	2	2	400			4,000	186	Wayne, N. Y.	1	1					23
Saint Louis, Mo.	20	20	9,880			360,200	7,476	Westchester, N. Y.	2	2	420			16,000	153
Saline, Mo.	3	3	805			4,400	455	Wetmore, N. Dak.	1	1	65			200	55
Scott, Mo.	1	1	200			3,000	80	Dickey, N. Dak.	1	1	60			200	51
Lewis and Clarke, Mont.	1	1	225			10,000	175	Lamotte, N. Dak.	2	2					69
Silverbow, Mont.	1	1					50	Oliver, N. Dak.	1	1					38
Adams, Nebr.	3	2	200			2,100	239	Pemina, N. Dak.	2	1	225			2,300	115
Antelope, Nebr.	1	1	150			800	63	Ramsey, N. Dak.	1	1					32
Blaine, Nebr.	1	1					45	Richland, N. Dak.	4	2	300			3,250	395
Boxhutte, Nebr.	1	1					37	Sargeut, N. Dak.	1	1					45
Brown, Nebr.	1	1					50	Traill, N. Dak.	3	3					251
Buffalo, Nebr.	2	2	550			3,500	167	Walsh, N. Dak.	2	2					85
Burt, Nebr.	2	1	175			1,000	155	Anglake, Ohio	1	1	200			2,400	137
Butler, Nebr.	2	1	120			1,000	152	Cuyahoga, Ohio	10	11	6,025			156,500	7,486
Cass, Nebr.	1	1	300			1,300	208	Defiance, Ohio	5	5	1,105			22,525	719
Chase, Nebr.	1	1					141	Fairfield, Ohio	2	2	700			5,000	323
Cherry, Nebr.	1	1	150			800	58	Franklin, Ohio	3	3	800			15,300	485
Cheyenne, Nebr.	2	1					65	Fulton, Ohio	1	1	200			3,000	80
Cofax, Nebr.	1	1	100			1,000	30	Hamilton, Ohio	3	3	1,280			67,700	1,069
Cumming, Nebr.	8	8	1,068			10,985	836	Henry, Ohio	6	6	1,775			13,500	967
Dawes, Nebr.	2	2					55	Hocking, Ohio	2	2	525			3,000	141
Dixon, Nebr.	3	2	300			1,100	75	Holmes, Ohio	3	3	675			2,100	131
Dodge, Nebr.	6	5	800			7,300	589	Lawrence, Ohio	1	1	260			5,400	225
Douglas, Nebr.	5	3	660			19,275	555	Lorain, Ohio	2	2	725			22,000	629
Franklin, Nebr.	3	3					114	Lucas, Ohio	2	2	570			11,200	600
Frontier, Nebr.	1	1	80			500	23	Mahoning, Ohio	1	1	400			10,000	154
Furnas, Nebr.	2	2					200	Medina, Ohio	1	1	300			3,500	92
Gage, Nebr.	1	1	130			750	111	Meigs, Ohio	1	1	200			2,000	110
Gosper, Nebr.	3	2	230			1,560	107	Muskingum, Ohio	1	1	600			32,000	358
Greecley, Nebr.	1	1					28	Ottawa, Ohio	1	1	150			2,000	61
Hall, Nebr.	1	1	200			3,000	150	Summit, Ohio	1	1	575			20,000	798
Hamilton, Nebr.	2	2	676			8,000	388	Union, Ohio	1	1	400			3,500	450
Harrison, Nebr.	2	2	100			500	33	Van Wert, Ohio	4	4	635			4,750	384
Hayes, Nebr.	1	1					20	Wayne, Ohio	1	1	150			900	25
Hitchcock, Nebr.	1	1	60			80	37	Williams, Ohio	1	1	80			500	16
Holt, Nebr.	2	1	100			650	56	Multnomah, Oreg.	2	1	200			5,000	105
Jefferson, Nebr.	1	1					52	Umatilla, Oreg.	1	1					48
Johnson, Nebr.	2	2	300			1,750	141	Washington, Oreg.	2	2	140			1,300	121
Kearney, Nebr.	3	1	120			1,300	130	Allegheny, Pa.	11	11	5,800			194,450	4,382
Knox, Nebr.	1	1					150	Beaver, Pa.	1	1	120			2,000	36
Lancaster, Nebr.	4	4	845			9,500	668	Butler, Pa.	2	2	600			5,200	294
Madison, Nebr.	6	4	1,250			11,500	772	Clearfield, Pa.	1	1	220			2,000	160
Merrick, Nebr.	1	1	100			300	89	Erie, Pa.	2	2	720			9,265	421
Nemaha, Nebr.	1	1	150			1,000	23	Fulton, Pa.	1	1	100			600	52
Nuckolls, Nebr.	1	1	50			300	28	Jefferson, Pa.	2	2	420			3,500	174
Pawnee, Nebr.	1	1	500			6,000	143	Philadelphia, Pa.	1	1	400			36,000	340
Perkins, Nebr.	1	1					97	Somerset, Pa.	3	3	427			1,900	160
Phelps, Nebr.	1	1					27	York, Pa.	1	1	800			30,000	490
Pierce, Nebr.	1	1	250			3,000	200	Aurora, S. Dak.	2	1	100			1,200	82
Platte, Nebr.	6	4	615			8,250	574	Beadle, S. Dak.	2	1	108			500	116
Redwillow, Nebr.	2	2	120			800	63	Bonhomme, S. Dak.	2	1	80			500	109
Richardson, Nebr.	2	1	250			3,500	220	Brown, S. Dak.	8	2	275			1,600	405
Saline, Nebr.	2	1	110			800	165	Brule, S. Dak.	1	1					83
Sarpy, Nebr.	1	1	175			2,500	80	Campbell, S. Dak.	1	1					51
Saunders, Nebr.	2	1	150			1,500	116	Davison, S. Dak.	2	2	450			1,800	25
Seward, Nebr.	8	7	1,644			15,075	961	Day, S. Dak.	3	3					66
Sherman, Nebr.	3	3	210			820	72	Douglas, S. Dak.	2	1	240			1,500	131
Thayer, Nebr.	5	4	740			6,325	458	Edmunds, S. Dak.	1	1					16
Washington, Nebr.	2	2	675			8,300	401	Faulk, S. Dak.	3	1	60			100	107
Wayne, Nebr.	3	2	225			3,350	216	Grant, S. Dak.	4	2	190			1,150	245
Webster, Nebr.	2	2	300			1,550	198	Hanson, S. Dak.	1	1					41
York, Nebr.	4	3	425			3,400	357	Hughes, S. Dak.	1	1					41
Bergen, N. J.	1	1	200			5,000	70	Hutchinson, S. Dak.	5	2	500			2,700	271
Hudson, N. J.	2	2	770			17,500	245	Jerauld, S. Dak.	1	1					31
Passaic, N. J.	2	2	350			9,500	384	Lake, S. Dak.	2	2	450			1,800	83
Albany, N. Y.	2	2	1,300			61,300	1,314	McCook, S. Dak.	1	1					79
Allegany, N. Y.	2	2	530			6,330	403	Marshall, S. Dak.	1	1					59
Cattaraugus, N. Y.	6	6	1,110			20,700	1,012	Miner, S. Dak.	2	1	350			1,200	85
Chautauqua, N. Y.	2	2	330			3,850	132	Minnehaha, S. Dak.	2	2	400			3,570	185
Columbia, N. Y.	2	2	450			16,200	289	Roberts, S. Dak.	1	1	75			600	33
Erie, N. Y.	13	13	4,702			113,160	4,514	Spink, S. Dak.	2	1	60			600	48
Fulton, N. Y.	1	1	225			1,000	155	Sully, S. Dak.	2	1	90			450	33
Herkimer, N. Y.	1	1	450			6,000	148	Turner, S. Dak.	2	1					101
Kings, N. Y.	5	5	3,550			200,000	2,914	Union, S. Dak.	1	1					29
Monroe, N. Y.	2	2	900			19,000	559	Yankton, S. Dak.	3	2	190			1,200	122
New York, N. Y.	6	6	3,787			400,000	6,159	Hamilton, Tenn.	1	1	150			5,110	75
Niagara, N. Y.	10	9	2,882			42,715	2,383	Shelby, Tenn.	1	1	400			28,000	152
Oneida, N. Y.	2	2	750			3,600	495	Brazos, Tex.	1	1					41
Orleans, N. Y.	2	2	450			5,000	169	Burleson, Tex.	1	1	60			150	20
Queens, N. Y.	2	2	500			9,000	314	Coryell, Tex.	2	1	75			400	72
Richmond, N. Y.	1	1	250			3,000	274	Dallas, Tex.	1	1					90
								Falls, Tex.	1	1	100			500	94

IV—SYNODICAL CONFERENCE EVANGELICAL LUTHERAN CHURCH—CONTINUED.

Name of church		Value of church property	Communicants or members	Synods	Number of organizations	Church edifices	Seating capacity	Halls, etc.	Seating capacity	Value of church property	Communicants or members
WISCONSIN—Cont'd.											
Chilmer, Wis.	2	2	460				\$4,700				365
Chippewa, Wis.	5	2	375				3,400	ph3			145
Clark, Wis.	2	2	550				3,400				250
Columbia, Wis.	5	4	1,635			300	17,350	h1			1,578
Crawford, Wis.	1	1	200				1,500				160
Dane, Wis.	1	1	150				1,800				120
Dodge, Wis.	17	17	3,905				29,750				3,010
Dunn, Wis.	6	4	895			75	11,350	sh1/2 ph1			718
Florence, Wis.	1	1	400				500				50
Fond du Lac, Wis.	7	6	1,500			75	8,875	sh1			1,361
Forest, Wis.	2	2	400			75	75	sh1/2 ph1			75
Grant, Wis.	1	1	400				5,500				200
Green Lake, Wis.	6	6	1,000				9,500				1,649
Jackson, Wis.	9	9	3,550				52,000				3,635
Jensen, Wis.	2	3	430				2,050				403
Kenosha, Wis.	5	4	860			80	14,000	sh1			940
Keshon, Wis.	4	4	935				8,150				850
Lacrosse, Wis.	6	6	2,150				33,000				1,889
Langlade, Wis.	1	1	400			75	500	sh1			10
Lincoln, Wis.	1	1	400				30				30
Madison, Wis.	16	15	4,745			75	61,300	sh1			3,944
Marathon, Wis.	7	6	1,170				9,100	ph1			982
Marquette, Wis.	8	4	850			275	6,400	sh1/2 h1y			695
Marquette, Wis.	2	2	700				4,000				450
Milwaukee, Wis.	15	15	8,650				260,300				9,623
Monroe, Wis.	9	8	1,875			75	15,300	sh1			1,610
Oconto, Wis.	1	1	400				1,200				40
Oneida, Wis.	4	1	300			75	300	ph2/3 sh1y			22
Outagamie, Wis.	11	11	2,090				17,775				1,582
Pierce, Wis.	1	1	150				1,500				76
Polk, Wis.	2	1	250			75	700	sh1			193
Racine, Wis.	4	4	1,150				9,700				965
Sauk, Wis.	7	6	895			75	6,000	sh1			603
Shawano, Wis.	1	1	120				1,800				68
Sheboygan, Wis.	2	2	550				5,900				503
Walworth, Wis.	3	3	460				8,600				564
Washington, Wis.	10	10	2,320				27,150				1,591
Waukesha, Wis.	4	3 1/2	1,325				28,000				840
Waupaca, Wis.	3	3	1,200				8,800				720
Wausara, Wis.	1	1	250				1,100				220
Winnebago, Wis.	4	4	1,950				19,688				1,235
Wood, Wis.	2	2	275				2,000				217
Total	237	198 3/4	58,855			36	794,988				50,095
ENGLISH CONFERENCE OF MISSOURI AND OTHER STATES:											
Washington, Ark.	1	1	200				2,500				60
Sangamon, Ill.	1	1	300				5,000				35
Cowley, Kans.	1	1	200				4,000				50
Orleans, La.	1	1	250				2,300				300
Baltimore, Md.	1	1	500				9,000				95
Barton, Mo.	1	1	300				800				50
Saint Louis, Mo.	1	1	250			150	1,000	h1			25
Wayne, Mo.	4	1	300				900				121
Weber, Mo.	1	2	300				100	h1			156
Allegheny, Pa.	1	1	700				5,000				50
Augusta, Va.	1	2	300				300	sh2			129
Pendleton, W. Va.	4	1 3/4	300				300				121
Total	18	12 3/4	3,300			4	30,800				1,192
SUMMARY BY SYNODS.											
Minnesota	99	58	14,523			27	1,787			218,900	12,655
Missouri, Ohio, and other states	1,589	1,261 1/4	366,507				6,759,535				293,211
Wisconsin	237	198 3/4	58,855			36	794,988				50,095
English Conference of Missouri	18	12 3/4	3,300			4	30,800				1,192
Total	1,943	1,531	443,185			67	7,804,313				357,153

INDEPENDENT LUTHERAN BODIES.

There are 12 Lutheran synods which are not connected with any of the four general bodies, and are therefore called independent bodies. They occupy this attitude for various reasons. In at least two cases, those of the Suomai Synod, a body of Finns, and the Icelandic Synod, the reason doubtless is peculiarity of language; in other cases it is differences of view on various doctrinal and practical questions and in national peculiarities. Some of these bodies are small, three of them having less than 5,000 communicants each, but some of them are large enough to constitute separate denominations.

THE JOINT SYNOD OF OHIO AND OTHER STATES.

This body was organized in 1818. It occupied an independent attitude until 1867, when it assisted in constituting the General Council, but only to withdraw in the following year, because it was not fully satisfied with the position of the council concerning the question of pulpit and altar fellowship with other denominations. It has ever been conservative and strictly confessional in character, and it was for nine years connected with the Synodical Conference, from which it withdrew in 1881 because it could not accept the views of the majority concerning the doctrine of predestination. Since then it has occupied an independent position. Its constituency is for the most part German, but in about a third of its congregations both German and English are used. Like other large Lutheran synods, it is divided into a number of districts.

While its chief strength is in the state of Ohio, it has many communicants in Wisconsin, Michigan, Pennsylvania, and Indiana. It embraces 23 states and the District of Columbia, New York constituting the most easterly and northerly portion of its territory, Texas the most southerly, and Oregon the most westerly. It has 421 organizations, 443 edifices, valued at \$1,639,087, and 69,505 communicants. Only 10 of its organizations hold services in other than church edifices. The average value of its edifices is \$3,700, and their average seating capacity 337.

V.—JOINT SYNOD OF OHIO AND OTHER STATES.

BY COUNTIES.

COUNTIES.	Number of organizations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.	COUNTIES.	Number of organizations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.
DISTRICT OF COLUMBIA:								INDIANA—Con'd.							
Washington city	1	1	250			\$13,000	150	Blackford	1	1	400			\$1,500	125
IDAHO:								Clay	1	1	250			800	50
Nez Perces	1	1	300			1,000	80	Dearborn	4	4	1,450			28,500	424
ILLINOIS:								Dekalb	1	1	300			1,000	45
Adams	1	1	300			1,000	175	Dubois	3	3	1,600			11,000	756
Champaign	1	1	250			1,200	100	Elkhart	1	1	250			1,000	150
Cook	5	5	2,400			33,600	960	Grant	1	1		shl	100		40
Jo Daviess	2	2	1,000			10,000	505	Huntington	3	{ 1R } { 2C }	740			2,800	127
Kendall	1	1	400			1,000	120	Jackson	1	1	250			1,500	200
Livingston	1	1	400			1,200	200	Monroe	1	1					30
Macoupin	2	2	1,050			6,700	305	Noble	1	1	200			500	55
Madison	1	1	300			800	80	Ohio	1	1	350			3,000	161
Shelby	1	1	600			3,000	200	Owen	2	2	800			2,500	195
Will	1	1	250			1,500	50	Randolph	1	1	600			9,000	300
Total	16	16	6,950			60,000	2,695	Ripley	2	2	500			2,900	245
INDIANA:								Saint Joseph	1	1	300			1,000	40
Allen	4	4	1,548			53,750	1,058	Wabash	1	1	400			1,200	47
Bartholomew	1	1	350			4,000	125	Warrick	1	1	200			2,000	147
								Wayne	1	1	1,200			30,000	700
								Whitley	1	1	137			3,000	75
								Total	34	32	11,825	1	100	160,950	5,095

V.—JOINT SYNOD OF OHIO AND OTHER STATES—CONTINUED.

COUNTIES.	Number of organizations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.	COUNTIES.	Number of organizations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.
IOWA:								Ohio—Con'd.							
Calhoun	2	5	500			\$1,200	180	Hamilton	1	1	350			\$7,800	217
Clayton	1	1	400			900	140	Hancock	1	1	600			10,000	283
Polk	2	2	950			8,400	330	Hardin	1	1	250			600	75
Total	5	8	1,850			10,500	650	Henry	3	3	600			4,150	510
KANSAS:								Hocking							
Brown	2	2	600			1,100	150	Holmes	1	1	500			8,000	230
Franklin	1	1	200			500	50	Huron	3	3	700			4,800	140
Ottawa	1	1	250			350	50	Jefferson	1	1	300			5,400	380
Rawlins	1	1	450			800	212	Knox	1	1	250			1,200	85
Total	5	5	1,500			2,750	472	Lucas	3	3	2,600			39,500	1,775
LOUISIANA:								Madison							
Orleans	1	1	700			5,000	500	Marion	5	5	2,050			24,800	1,350
MARYLAND:								Medina							
Baltimore	12	12	3,620			38,900	1,545	Meigs	2	2	600			3,000	840
MICHIGAN:								Mercer							
Alpena	1	1	90			1,000	66	Miami	3	3	600	hl	75	8,500	390
Barry	1	1	112			500	115	Montgomery	6	9	5,325			73,000	1,675
Monroe	4	4	1,200			11,500	790	Morgan	1	1	150			900	108
Saginaw	6	6	1,825			34,900	1,815	Morrow	1	1	500			3,000	75
Washtenaw	2	2	800			15,000	723	Muskingum	1	1	250			1,200	65
Wayne	7	6	3,645	shl	75	63,000	2,708	Ottawa	1	1	500			1,000	500
Total	21	20	7,672	1	75	125,700	6,217	Paulding	2	1	250			800	125
MINNESOTA:								Perry							
Blue Earth	3	3	1,250			3,500	500	Pickaway	11	10	3,755			23,600	977
Brown	1	1	600			1,200	223	Preble	6	6	1,750	phl		17,100	622
Cottonwood	1	1	250			800	50	Putnam	4	4	1,375			23,300	505
Fairbault	1	1	400			1,500	115	Sandusky	1	1	125			1,200	60
Freeborn	1	1	500			4,200	325	Scioto	6	5	2,250			27,800	1,504
McLeod	2	2	900			8,500	300	Seneca	2	2	1,000			5,000	280
Murray	1	1	300			1,300	100	Shelby	5	5	1,175			16,500	523
Ramsey	1	1	700			5,200	556	Stark	4	4	1,650			22,400	941
Redwood	2	4	600			1,300	100	Trumbull	10	9	3,400			58,800	1,534
Sibley	4	4	1,600			5,200	556	Tuscarawas	5	7	1,650			11,000	728
Swift	1	1	400			1,300	126	Union	1	1	200			1,000	35
Washington	2	2	800			5,400	550	Warren	2	2	950			22,100	318
Wright	1	1	400			850	80	Wayne	4	5	850	hl	125	11,500	400
Total	21	23	8,700			37,250	3,180	Wood	2	4	775			4,300	200
MISSOURI:								Wyandot							
Perry	1	1	200			600	30	Total	191	197	67,537	4	300	839,272	31,261
NEBRASKA:								OREGON:							
Clay	1	1	250			650	87	Vasco	1	1	200			600	50
Hall	1	1	200			600	28	PENNSYLVANIA:							
Madison	1	1	300			800	50	Allegheny	11	11	4,073			140,000	2,596
Nuckolls	1	1	200			500	60	Armstrong	1	1	450			1,500	60
Thayer	3	3	850			2,050	225	Beaver	2	2	260			3,250	143
Total	7	7	1,800			4,600	440	Blair	1	1	100			1,200	60
NEW YORK:								Butler							
Niagara	2	2	330			2,700	198	Clarion	6	6	2,000			35,500	1,412
NORTH CAROLINA:								Clearfield							
Catawba	9	8	1,825	shl	50	5,165	432	Forest	2	2	1,100			3,800	215
Lincoln	3	3	725			1,160	135	Indiana	1	1	150			1,500	90
Total	12	11	2,550	1	50	6,315	567	Mercer	1	1	130			500	88
NORTH DAKOTA:								Mercer							
Barnes	1	1	300			750	70	Venango	3	3	650			3,000	268
OHIO:								Washington							
Allen	4	4	1,100			17,500	431	Total	32	32	10,429			206,100	5,552
Ashland	4	4	1,150			6,800	465	SOUTH DAKOTA:							
Auglaize	3	4	1,000			6,800	530	Day	1	1	250			500	62
Belmont	1	1	400			6,000	175	Hutchinson	1	1	450			1,200	200
Butler	3	3	1,400			41,000	1,057	Miner	1	1	300			1,000	65
Carroll	4	4	1,350			11,000	441	Total	3	3	1,000			2,700	327
Champaign	1	1	250			2,000	63	TEXAS:							
Clark	1	1	800			35,000	300	Gillespie	1	1	900			8,000	800
Columbiana	4	4	1,050			7,500	381	Guadalupe	1	4	1,200			5,000	680
Coshocton	1	1	350			1,000	186	Medina	1	1	450			1,000	150
Crawford	8	8	3,350			29,700	2,293	Travis	1	1	300			6,000	100
Darke	10	10	2,825			27,800	821	Total	4	7	2,850			20,000	1,730
Delaware	2	2	450			7,200	295	VIRGINIA:							
Eric	3	3	725			4,300	340	Highland	1	1	200			1,000	35
Fairfield	6	8	2,050			14,600	606	Shenandoah	4	3	550	shl	100	1,900	140
Franklin	10	10	4,275	shl	100	102,100	2,163	Total	5	4	750	1	100	2,900	175
WASHINGTON:								WASHINGTON:							
								Pierce	2	3	700			6,800	234
								Spokane	1	2	300			4,000	102
								Wallawalla	1	1	250			600	50
								Total	4	6	1,250			11,400	386

V.—JOINT SYNOD OF OHIO AND OTHER STATES—CONTINUED.

COUNTIES.	Number of organi- zations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.	SUMMARY BY STATES, ETC.							
								STATES, ETC.	Number of organi- zations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.
WEST VIRGINIA:															
Grant	2	2	250			\$500	95	District of Columbia	1	1	250			\$13,000	150
Hardy	4	4	750			2,300	130	Idaho	1	1	300			1,000	80
Pendleton	7	4½	1,025	sh2	160	2,700	438	Illinois	16	16	6,950			60,000	2,695
Preston	3						56	Indiana	34	32	11,825	1	100	160,950	5,065
Total	16	10½	2,025	2	160	5,500	779	Iowa	5	5	1,850			10,500	650
WISCONSIN:															
Brown	3	4	2,000			14,400	1,150	Kansas	5	5	1,500			2,750	472
Clark	2	2	800			4,400	250	Louisiana	1	1	700			5,000	500
Dodge	1	1	900			10,000	400	Maryland	12	12	3,620			38,000	1,545
Door	1	1	350			600	95	Michigan	21	20	7,072	1	75	125,700	6,217
Fond du Lac	1	2	800			3,400	225	Minnesota	21	23	8,700			57,250	3,180
Lincoln	1	2	300			700	150	Missouri	1	1	200			600	70
Marathon	1	7	1,700			5,700	860	Nebraska	7	7	1,800			4,600	440
Oconto	4	1	700			3,000	300	New York	2	2	350			2,700	198
Outagamie	3	6	2,200			7,400	800	North Carolina	12	11	2,550	1	50	6,215	567
Racine	1	3	800			3,400	265	North Dakota	1	1	300			750	70
Rock	1	1	350			1,000	150	Ohio	101	197½	67,537	4	300	839,272	31,261
Saint Croix	1	1	300			900	70	Oregon	1	1	200			600	50
Shawano	1	3	700			2,600	350	Pennsylvania	32	32	10,420			206,100	5,552
Waupaca	2	3	1,150			2,700	450	South Dakota	3	3	1,000			2,700	327
Winnebago	2	4	1,700			21,000	1,750	Texas	4	7	2,850			20,000	1,730
Total	25	41	14,750			80,600	7,356	Virginia	5	4	750	1	100	2,000	175
								Grand total							
								421	443	149,398	10	785	1,639,087	69,506	

THE BUFFALO SYNOD.

This synod was organized in 1845 by the Rev. J. A. A. Grabau, who came from Germany, where he had suffered for his opposition to the union of the Reformed and Lutheran religions. The synod has held views concerning the ministerial office which other Lutherans have considered as hierarchical. It insists that ordination, unless by ordained ministers, is not valid; that ministers created by congregations have no divine authority to pronounce absolution or to consecrate the elements of bread and wine; that congregations may not pronounce excommunication; that obedience is due to ministers, and that the synod is the supreme tribunal in the church.

The synod has congregations in 6 states, with 25 church edifices, valued at \$84,410, and 4,242 communicants. The average value of its edifices is \$3,376, and their average seating capacity 232.

VI.—BUFFALO SYNOD.

BY COUNTIES.

COUNTIES.	Number of organi- zations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.	SUMMARY BY STATES.							
								STATES.	Number of organi- zations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.
CALIFORNIA:															
San Diego	1	1	150			\$500	26	WISCONSIN:							
ILLINOIS:															
Effingham	1	1	300			2,500	136	Fond du Lac	1	1	100			\$500	50
MICHIGAN:															
Macomb	1	1	300			1,000	90	Milwaukee	1	1	450			13,000	450
Oakland	1	1	150			600	55	Ozaukee	2	2	230			2,100	366
Tuscola	1	1	148			500	55	Sheboygan	1	1	250			800	112
Wayne	1	1	250			8,000	140	Washington	2	2	450			3,200	180
Total	4	4	848			10,100	342	Total	7	7	1,480			19,600	1,158
MINNESOTA:															
Lower	1	1	100			300	112	STATES.							
Washington	1	1	200			3,400	200	California	1	1	150			500	26
Total	2	2	300			3,700	312	Illinois	1	1	300			2,500	136
NEW YORK:															
Eric	7	6	1,440	h1	200	34,410	1,408	Michigan	4	4	848			10,100	342
Niagara	5	4	1,275	h1	75	13,600	860	Minnesota	2	2	300			3,700	312
Total	12	10	2,715	2	275	48,010	2,268	New York	12	10	2,715	2	275	48,010	2,268
								Total							
								27	25	5,793	2	275	84,410	4,242	

HAUGE'S SYNOD.

This is a body of Norwegian Lutherans organized in the period 1846-1850 by immigrants from Norway. It took its name from Hauge, a leader of a strong spiritual movement in that country. Its followers lay much stress upon conversion and are noted for their earnestness. The laymen participate in prayer and exhortation in public assemblies, contrary to the practice of some other bodies of a more churchly character. This synod has always occupied an independent attitude.

It has 175 organizations, divided among 11 states, but with two-thirds of its strength in Minnesota, South Dakota, and Wisconsin, and 99 church edifices having an average seating capacity of 306 and an average value of \$2,149. Its communicants aggregate 14,730.

VII.—HAUGE'S SYNOD.
BY COUNTIES.

COUNTIES.	Number of organizations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.	COUNTIES.	Number of organizations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.
ILLINOIS:								NORTH DAKOTA:							
Boone	1	1	100			\$800	66	Benson	1			sh1	75		40
Cook	12	12	1,500			32,000	400	Bottineau	1			sh1	75		50
Kendall	1	1	250			2,000	88	Cass	4	1	400	sh3	225	\$700	121
LaSalle	1	1	225			1,500	66	Grand Forks	1	1	350			1,200	38
Lee	1	1	600			3,500	171	Griggs	1			ph1			26
Livingston	3	1	200	ph2		600	72	Rolette	3			sh3	225		85
Total	10	8	2,875	2		40,400	863	Sargent	1			ph1			35
INDIANA:								TRAIL							
Laporte	1	1	250			800	29	Trail	2	2	650			2,050	97
IOWA:								WALSH							
Clayton	1	1	120			800	48	Walsh	1	1	300			900	34
Emmet	1	1	400	ph1		2,000	45	Ward	1			sh1	75		50
Fayette	1	1	300	ph1		2,500	247	Total	16	5	1,700	11	675	4,850	576
Hamilton	4	3	900	sh1	75	4,700	427	SOUTH DAKOTA:							
Hardin	1	1	250			2,500	100	Brookings	3	1	500	sh2	150	2,500	448
Mahaska	1	1	200			2,000	80	Brule	1			sh1	75		12
O'Brien	1	1	200	ph1		2,000	53	Butte	1			ph1			49
Story	3	3 1/2	900			6,200	441	Butte	3			ph2/3	40		126
Winnebago	1	1	180			1,500	85	Charles Mix	2	1	250	sh1	75	1,000	70
Woodbury	1	1	200			5,000	67	Clark	1			sh1	75		75
Total	17	13 1/2	3,450	4	75	27,200	1,533	Clay	2	1	350	ph1		900	117
KANSAS:								DAVISON							
Republic	1			ph1			26	Day	2			sh1/2	450		51
MICHIGAN:								DONEL							
Muskegon	1	1	200			4,000	62	Donel	1			sh1	75		130
MINNESOTA:								DOUGLAS							
Becker	1			ph1			30	Grant	2			sh2	215		39
Clay	2	2	500			2,000	152	Hyde	1	1	100			400	105
Crow Wing	1	1	300			1,200	38	Kingsbury	4			ph1			78
Faribault	2	1	350	h1	100	2,000	200	Lawrence	1			sh1	75		75
Fillmore	2	2	650			4,700	489	Lincoln	2	1	100	h1	150	1,000	225
Goodhue	5	4	1,600	sh1	100	15,500	922	Marshall	1	1	325	sh1		1,100	50
Hennepin	1	1	500			16,000	250	Mitchell	1	1	200			800	49
Jackson	1	1	450			2,500	110	Mountrail	1	1	280			1,000	68
Kandiyohi	3	3	840			4,800	160	Sauborn	1			h1	300		42
LaC qui parle	6	3	1,800	sh3	150	9,000	1,115	Turner	1			ph1			28
Marshall	1	1	75			200	107	Union	1	1	400			1,500	135
Mower	1	1	160			1,200	65	Yankton	3	2	450	h1	100	1,500	245
Norman	5	4	860	ph1		5,045	416	Total	36	11	2,955	25	1,955	11,700	2,239
Olmsted	1	1	300			1,500	250	WASHINGTON:							
Ottertail	8	8	2,450			9,200	915	Spokane	2	1	350	ph1		1,000	205
Polk	6	2	450	ph3/4	140	2,000	293	WISCONSIN:							
Ramsey	2	2	700	sh } 4		16,000	197	Adams	1	1	250			1,500	100
Renville	3	2	800	sh1	50	2,500	340	Barron	2			ph1/2	75		62
Rice	2	2	500			2,500	375	Buffalo	2	1	300	sh1		1,500	133
Wright	1			ph1			79	Clark	1				200		85
Yellow Medicine	1			h1	100			Columbia	3	3	1,150			5,350	287
Total	55	41	13,285	14	640	99,245	6,534	Crawford	1	1	400			1,200	150
NEBRASKA:								DANE							
Boone	1			sh1	90		75	Dane	4	3	900	sh1	75	3,600	239
Buffalo	1			sh1	75		11	Dunn	1			ph1			18
Colfax	1			ph1			35	Grant	1			sh1	100		40
Cuming	1	1	150			1,200	100	Jackson	1	1	250			1,000	201
Custer	1			sh1	75		27	Perce	3	2	500	sh1	100	2,700	360
Madison	1	1	225			1,600	120	Portage	1			sh1	36		22
Platte	1	1	150			650	45	Saint Croix	1			sh1	100		16
Washington	1	1	200			1,500	25	Trempealeau	3	1	180	sh2	90	800	117
Total	8	4	725	4	240	4,950	438	Vernon	3	1 1/4	800	sh1	75	2,500	335
TOTAL								TOTAL							
								28 141 4 710 13 851 20,150 2,165							

VII.—HAUGE'S SYNOD—CONTINUED.

SUMMARY BY STATES.

STATES.	Number of organi- zations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.	STATES.	Number of organi- zations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.
Illinois.....	10	8	2,875	2		\$10,400	862	North Dakota.....	16	5	1,700	11	675	\$1,850	576
Indiana.....	1	1	250			800	23	South Dakota.....	36	11	2,955	25	1,955	11,700	2,239
Iowa.....	17	13½	3,450	4	75	27,200	1,593	Washington.....	12	1	350	1		1,000	235
Kansas.....	1	1		1			26	Wisconsin.....	28	14½	4,710	13	851	20,150	2,165
Michigan.....	1	1	200			4,000	62								
Minnesota.....	55	41	13,285	14	640	99,345	6,534	Total.....	175	99½	20,500	75	4,436	214,235	14,730
Nebraska.....	8	4	725	4	240	4,950	438								

THE NORWEGIAN EVANGELICAL LUTHERAN CHURCH IN AMERICA.

This body was organized by Norwegian immigrants a few years later than Hauge's synod. Like the latter, it has always maintained an independent position, except for the short period when it was connected with the Synodical Conference. A few years ago a controversy over the doctrine of predestination caused a division in its ministry and congregations, resulting in the formation of what was known as the Anti-Missouri Brotherhood. The synod accepted the views of the Missouri synod, which its type of Lutheranism resembles, while the brotherhood rejected these views as Calvinistic.

The synod is divided into three districts. It has 489 organizations, 275 church edifices, and 55,452 communicants. Its territory embraces 22 states, stretching from ocean to ocean and from the Lakes to the Gulf. Two-thirds of its communicants, however, are in the states of Minnesota and Wisconsin. The average value of its church edifices is \$2,929, and their average seating capacity is 287.

VIII.—NORWEGIAN EVANGELICAL LUTHERAN CHURCH IN AMERICA.

BY COUNTIES.

COUNTIES.	Number of organi- zations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.	COUNTIES.	Number of organi- zations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.
CALIFORNIA:								IOWA:							
Alameda.....	1						12	Allamakee.....	1			sh1	75		50
Fresno.....	1						27	Buena Vista.....	4	11½	600	sh1	30	\$2,000	328
San Francisco.....	1	1	300			\$14,000	150	Cass.....	1			h2	250		7
Total.....	3	1	300			14,000	189	Cherokee.....	1			h1	25		2
COLORADO:								Chickasaw.....	1	2	1,100			6,200	47
Arapahoe.....	1	1	300			2,000	75	Franklin.....	1			sh1	100		11
IDAHO:								Hamilton.....	1						30
Latah.....	1	1	150			1,000	45	Hardin.....	1						35
ILLINOIS:								Humboldt.....	1	1	500			5,000	260
Bowling.....	1	1	100			500	60	Iowa.....	1	1	125			1,200	40
Cook.....	3	3	2,400			89,000	1,015	Kossuth.....	1						57
Grundy.....	2			h2	300		44	Palo Alto.....	1			sh1	45		43
Iroquois.....	2			h2	300		117	Pottawattamie.....	1			h1	100		40
Kankakee.....	2			sh1	75		73	Story.....	2	2	900			8,500	844
Lee.....	1	1	400			3,500	225	Webster.....	1			sh1	200		300
Ogle.....	1			h1	300		40	Winnebago.....	7	3	750	sh4	300	4,500	677
Sangamon.....	1			h1	200		49	Winnesheik.....	12	10½	4,150	sh1	60	57,500	3,038
Stephenson.....	1	1	250			2,800	65	Worth.....	5	4	1,150	sh1	175	12,000	625
Total.....	14	6	3,150	8	875	95,500	1,688	Wright.....	1			sh1	75		45
INDIANA:								Total.....	49	26	9,275	16	1,435	97,800	7,059
Marion.....	1	1	300			6,000	125	KANSAS:							
Newton.....	1			sh1	100		57	Jewell.....	1	1	100			200	30
Total.....	2	1	300	1	100	6,000	182	MASSACHUSETTS:							
MICHIGAN:								Suffolk.....	1			h1	75		300
Antrim.....	1	1	100				57	Worcester.....	1			h1	75		75
Benzie.....	1	1	200				57	Total.....	2			2	150		375

VIII.—NORWEGIAN EVANGELICAL LUTHERAN CHURCH IN AMERICA—CONTINUED.

COUNTIES.	Number of organi- zations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.	COUNTIES.	Number of organi- zations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.
MICHIGAN—Con'd.								NEBRASKA—Con'd.							
Delta	1			ph1			50	Phelps	1			ph1			14
Leelanaw	3	1	350	sh1	75	\$2,500	189	Sherman	1			ph1			3
Manitou	1						56	Stanton	1			sh1	75		12
Mcosta	1	1	175			1,400	49	Washington	1	1	300			\$2,200	81
Muskegon	1	1	150			700	75	Total	21	7½	1,520	13	450	12,200	544
Saint Clair	1			sh1	80		35	NEW JERSEY:							
Sanilac	1			sh1	75		35	Middlesex	1	1	225			4,000	180
Schoolcraft	1			ph1			67	NEW YORK:							
Wayne	1	1	150			3,000	100	Erie	1			h1	100		40
Total	14	7	1,125	5	230	9,900	758	Essex	1	1	300			4,000	50
MINNESOTA:								1	1		h1	100		50	
Becker	4	3	750	sh1	60	4,900	295	Greene	1			h1	100		50
Bigstone	1			sh1	50		15	Kings	1	1	600			26,000	550
Brown	1	0½	250			600	41	Rensselaer	1	1	150			3,000	94
Chippewa	4	4	1,525			9,500	670	Total	5	3	1,050	2	200	33,000	784
Clay	4	3	500	sh1	55	750	244	NORTH DAKOTA:							
Cottonwood	1			sh1	100		90	Barnes	5			sh4½ h1½	450		416
Crow Wing	2	2	205			1,000	100	Benson	4			sh2¼ ph2¼	120		150
Dodge	2	1	600			6,000	690	Bottineau	1			ph1			20
Douglas	3	2	500	sh1	60	4,200	700	Cass	6	2	450	sh3	210	7,900	550
Karibault	5	5	1,030			8,300	700	Cavalier	1			sh1	70		60
Fillmore	4	3	800	sh1	100	7,500	1,080	Grand Forks	1			h1	400		35
Freeborn	11	8	2,300	sh2	150	20,600	1,866	McHenry	4	1	50	sh3	120	75	110
Goodhue	7	6	1,983	sh1	100	12,150	1,139	Nelson	4			sh4	180		128
Grant	7	1	300			3,000	563	Pembina	1			sh1	70		50
Hennepin	4	5	1,950			26,500	1,190	Pierce	2			ph2			25
Houston	6	4	1,830	ph2		22,500	1,362	Ramsey	8			sh8	420		200
Kandiyohi	6	5	1,145	ph1		5,700	767	Ransom	2			sh2	150		65
Lincoln	1						25	Richland	1			sh1	70		112
Lyon	5	3	720	sh2	150	3,200	443	Rolette	2			sh1½ ph1½	60		65
McLeod	1	1	250			2,000	186	Steele	2	1	350	sh1	60	2,000	144
Meeker	1	1	200			2,500	75	Trail	6	3	1,150	sh3	230	13,000	536
Millersac	1			sh1	60		40	Walsh	1			sh1	70		25
Morrison	1			sh1	60		30	Ward	2	1	200	ph1			93
Mower	2	1	200	sh1	50		80	Total	53	8	2,200	44	2,680	22,975	2,784
Murray	2			sh1	100		155	OHIO:							
Nicollet	2	2	485			5,100	389	Cuyahoga	1	1	150			3,000	99
Norman	3	3	1,000			5,800	500	Lucas	1			sh1	75		40
Onsted	2	1	650			6,000	588	Summit	2			h1½ ph1½	100		45
Ottertail	13	10	2,720	sh3	110	23,050	1,391	Total	4	1	150	3	175	3,000	184
Pipestone	2						16	OREGON:							
Polk	9	3	560	sh3½ ph2½	180	600	471	Clatsop	1	1	200			2,500	50
Pope	14	13	4,300	sh1	60	22,200	2,377	Columbia	2			h1½ ph1½	200		45
Ramsey	1	1	500			15,000	500	Total	3	1	200	2	200	2,500	95
Renville	5	5	1,550			15,300	736	SOUTH DAKOTA:							
Rice	3	2	600	sh1	50	5,200	290	Brookings	6			sh16	350		244
Rock	4	4	1,200			7,500	277	Brule	2			sh2	120		46
Sherburne	1	1	300			200	170	Charles Mix	2			sh2	120		45
Sibley	2	2	300			1,800	105	Clay	4	1	120	sh3	180	1,000	192
Stearns	1	1	320			4,500	260	Davison	1	1	150			1,200	20
Stevens	4	1	300			1,000	465	Denel	7	1	150	ph2½ sh4½	295	900	429
Swift	6	3	650	sh3	180	4,500	440	Hanson	1						36
Vadana	1	1	70			800	80	Jeranld	1						80
Washington	2			h2	350		125	Lake	3	1	850	sh2	120	1,600	334
Wilkin	2	1	400	sh1	75	3,000	160	Minnehaha	9	5	1,520	sh3½ ph1½	260	15,900	940
Yellow Medicine	1			ph1			6	Moody	5	1	150	sh4	400		252
Total	164	112½	32,843	35	2,100	267,950	21,832	Turner	1			sh1	60		19
MISSOURI:								1	1	300			1,200	101	
Saint Louis	2	1	200	h1	100	400	50	Yankton	3	2	500			3,800	292
MONTANA:								Total	46	13	3,240	30	1,905	25,700	3,030
Cascade	2			h2	375		90	TEXAS:							
Lewis and Clarke	1	1	250			1,200	75	Bosque	1	2	700			5,000	250
Total	3	1	250	2	375	1,200	165	Henderson	1	1	75			100	30
NEBRASKA:								1	1	75			100	30	
Adams	1			ph1			3	Kaufman	1	1	75			1,500	40
Buffalo	2			h1½ ph1½	100		23	McLennan	1	1	100				
Cass	1			ph1			18	Total	4	5	950			6,700	350
Cedar	2	1	200	sh1	100	1,200	70								
Collfax	1			sh1	75		21								
Cuming	2	2	400				38								
Custer	1			ph1			5								
Dixon	1	1	200			1,100	61								
Dodge	1	1	150			500	40								
Douglas	1	1	150			7,000	75								
Knox	1			sh1	100		30								
Lancaster	2			ph2			37								
Merrick	1	0½	120			200	13								

X.—DANISH EVANGELICAL LUTHERAN CHURCH IN AMERICA—CONTINUED.

COUNTIES.	Number of organi- zations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.	STATES, ETC.	Number of organi- zations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.
SUMMARY BY STATES AND TERRITORIES.															
UTAH:															
Salt Lake	1						23								
Weber	1						24								
Total	2						48								
WISCONSIN:															
Adams	1	1	164			\$450	50	California	4	1	300	2	50	\$1,200	125
Brown	2	2	350			2,150	300	Connecticut	2	2	300			12,000	200
Kenosha	1	1	200			2,000	200	Illinois	9	5	1,330	4	50	15,100	1,314
Marquette	1	1	160			1,000	40	Iowa	23	14	3,300	7	500	24,800	2,211
Orono	1	1	100			1,000	30	Kansas	1	1	125			800	120
Polk	2	2		863	275		120	Maine	2	2	400				200
Racine	2	2	650			10,200	650	Massachusetts	3			1			119
Waukesha	1	1	200			65	65	Michigan	9	8	1,900	1	70	13,700	588
Waupaca	2	2	325			2,900	351	Minnesota	17	8	1,230	9	320	11,300	1,032
Waushara	1	1	150			500	80	Nebraska	19	11	1,510	8	490	20,100	888
Winnebago	1	1	300			2,000	150	New Jersey	8	5	1,000			6,000	505
Total	16	12½	2,600	3	275	22,200	2,076	New York	5	4	475			11,000	410
								South Dakota	11	1	200	7	420	1,500	285
								Utah	2						48
								Wisconsin	16	12½	2,600	3	275	22,200	2,076
								Total	131	74½	14,760	42	2,175	129,700	10,181

THE GERMAN AUGSBURG SYNOD.

This body was formed in 1875. It has 23 organizations, distributed among 9 states. These organizations own 23 church edifices, with an average seating capacity of 329 and an average value of \$4,829.

XI.—GERMAN AUGSBURG SYNOD.

BY COUNTIES.

COUNTIES.	Number of organi- zations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.	COUNTIES.	Number of organi- zations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.
ARKANSAS:								OHIO:							
Arkansas	1			phl			75	Auglaize	1	1	1,000			\$26,800	1,700
ILLINOIS:								WISCONSIN:							
Cook	1	1	250			\$2,500	150	Dane	5	5	1,550			10,310	936
Jackson	1	1	100			450	75	Grant	1	1	500			3,000	600
Randolph	1	1	300			5,500	350	Jefferson	1	1	200			2,000	95
Winnebago	1	1	100			1,000	50	Sauk	1	1	200			2,000	100
Total	4	4	700			9,450	631	Sheboygan	1	1	150			1,000	60
INDIANA:								Walworth	1	1	200			2,000	200
Ripley	2	2	600			5,000	370	Total	10	10	2,800			20,310	1,991
IOWA:								SUMMARY BY STATES.							
Jackson	1	1	100			1,000	70	STATES.							
MICHIGAN:								Arkansas	1			phl			75
Wayne	1	1	300			5,000	174	Illinois	4	4	700			9,450	631
MISSOURI:								Indiana	2	2	600			5,000	370
Saint Charles	1	1	500			15,000	275	Iowa	1	1	100			1,000	70
Saint Louis	1	2	800			25,000	524	Michigan	1	1	300			5,000	174
Total	2	3	1,360			40,000	1,199	Missouri	2	3	1,360			40,000	1,199
NEW YORK:								New York	1	1	700			3,500	800
Chautauqua	1	1	700			3,500	800	Ohio	1	1	1,000			26,800	1,700
								Wisconsin	10	10	2,800			20,310	1,991
								Total	23	23	7,560	1		111,060	7,010

THE DANISH LUTHERAN CHURCH ASSOCIATION IN AMERICA.

This association was formed in 1884, chiefly by Danish ministers, who withdrew from what was then called the Norwegian-Danish Conference, not because of doctrinal or ecclesiastical differences, but because of reasons growing out of differences of nationality.

It embraces 50 organizations, with 33 church edifices, having an average seating capacity of 173 and an average value of \$1,357. Its communicants number 3,493, divided among 9 states.

XII.—DANISH LUTHERAN CHURCH ASSOCIATION IN AMERICA.

BY COUNTIES.

COUNTIES.	Number of organi- zations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.	COUNTIES.	Number of organi- zations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.
CALIFORNIA :								OREGON :							
Alameda	1			h1	100		10	Multnomah	1			ph1			20
Fresno	1	1	200			\$2,000	24								
San Francisco	1			ph1			10								
Santa Cruz	1	1	175			1,000	100								
Total	4	2	375	2	100	3,000	144								
ILLINOIS :								SOUTH DAKOTA :							
Cook	1			ph1		4,000	50	Union	1	1	150			\$1,200	102
								Yankton	1	1	100			1,000	51
								Total	2	2	250			2,200	153
IOWA :								WASHINGTON :							
Clay	1			sh1	65		65	King	1			ph1			20
Monona	1	1	150			800	70	Pierce	1			ph1			20
Palo Alto	1			sh1	65		62	Total	2			2			40
Plymouth	1			ph1			20								
Pottawattamie	1	1	200			3,000	180	WISCONSIN :							
Woodbury	1			ph1			16	Polk	1	1	100			800	100
Total	6	2	350	4	130	3,800	413	Racine	1	1	350			3,500	45
MINNESOTA :								Waupaca	1	1	250			1,500	175
Douglas	1	1	200			1,200	150	Winnebago	1	1	150			1,200	75
Freshorn	3	2	550	ph1		4,000	435	Total	4	4	850			7,000	395
Hennepin	1			h1	100		53								
McLeod	2	2	400			2,700	350								
Morrison	1	1	150			1,000	140								
Sherburne	2	1	50	ph1		50	127								
Steele	4	2	325	h2	150	1,200	260								
Total	14	9	1,675	5	250	10,150	1,524								
NEBRASKA :								SUMMARY BY STATES.							
Burt	1	1	70			375	25	STATES.							
Clay	2	1	105			600	43	California	4	2	375	2	100	3,000	144
Colfax	1	1	100			600	30	Illinois	1			1		4,000	50
Dodge	2	2	375			2,400	125	Iowa	6	2	350	4	130	3,800	413
Douglas	1	1	150			600	50	Minnesota	14	9	1,675	5	250	10,150	1,524
Greeley	1	1	75			450	25	Nebraska	16	14	2,200			14,625	754
Hamilton	2	2	500			4,000	105	Oregon	1			1			20
Howard	3	2	225			1,800	94	South Dakota	2	2	250			2,200	153
Kearney	1	1	200			2,000	150	Washington	2			2			40
Saunders	1	1	250			1,600	70	Wisconsin	4	4	850			7,000	395
Washington	1	1	150			800	37	Total	50	33	5,700	15	480	44,775	3,493
Total	16	14	2,200			14,625	754								

THE ICELANDIC LUTHERAN SYNOD.

The Synod of Icelanders was organized in 1885. By far the larger part of this synod is in Manitoba.

It has in this country 13 organizations, 4 church edifices, with an average seating capacity of 325 and an average value of \$1,800, and 1,991 communicants. It is represented in two states only, Minnesota and North Dakota.

XIII.—ICELANDIC SYNOD.

BY COUNTIES.

COUNTIES.	Number of organi- zations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.	COUNTIES.	Number of organi- zations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.
MINNESOTA :								NORTH DAKOTA—							
Lincoln	1			sh1	130		90	Con'd.							
Lyon	4			sh1 h1 ph2	170		131	Wahle	1			sh1	150		45
Total	5			5	300		221	Total	8	4	1,300	4	450	\$7,200	1,770
								SUMMARY BY STATES.							
								STATES.							
NORTH DAKOTA :								Minnesota	5			5	300		221
Cavaller	1			ph1			70	North Dakota	8	4	1,300	4	450	7,200	1,770
Pembina	6	4	1,300	sh2	300	\$7,200	1,640	Total	13	4	1,300	9	750	7,200	1,991

THE IMMANUEL SYNOD.

This is a small German body whose organization dates from 1886. It is represented in 7 states and the District of Columbia, having 21 organizations, 19 church edifices, with an average seating capacity of 279 and an average value of \$4,958, and 5,580 communicants.

XIV.—IMMANUEL SYNOD.

BY COUNTIES.

COUNTIES.	Number of organizations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.	COUNTIES.	Number of organizations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.
DISTRICT OF COLUMBIA:								Ohio—Con'd.							
Washington city.....	1	1	300			\$15,000	500	Richland.....	1	1	500			\$15,000	300
ILLINOIS:								Total.....	6	6	1,000			25,500	1,350
Madison.....	1	1	300			10,000	300	PENNSYLVANIA:							
INDIANA:								Erie.....	1	1	150			1,500	100
Jennings.....	1	1	150			1,200	180	Lackawanna.....	1	1	250			5,000	300
MICHIGAN:								Lucerne.....	1	1	300			3,000	450
Wayne.....	1	1	600			15,000	500	Wayne.....	1	1	500			5,000	600
NEW JERSEY:								Total.....	4	4	1,200			14,500	1,450
Hudson.....	1	1	300			3,000	400	SUMMARY BY STATES, ETC.							
Union.....	1	1	250			4,000	300	STATES, ETC.							
Total.....	2	2	550			7,000	700	District of Columbia.....	1	1	300			15,000	500
NEW YORK:								Illinois.....	1	1	300			10,000	300
Cattaraugus.....	4	3	600			6,000	500	Indiana.....	1	1	150			1,200	180
Kings.....	1						100	Michigan.....	1	1	600			15,000	500
Total.....	5	3	600			6,000	600	New Jersey.....	2	2	550			7,000	700
OHIO:								New York.....	5	3	600			6,000	600
Brown.....	1	1	300			2,000	200	Ohio.....	6	6	1,600			25,500	1,350
Cuyahoga.....	1	1	150			1,500	150	Pennsylvania.....	4	4	1,200			14,500	1,450
Hamilton.....	3	3	650			7,000	700	Total.....	21	19	5,300			91,200	5,580

THE SUOMAI SYNOD.

This is a body of Finnish Lutherans organized in 1889. It has 11 organizations, 8 church edifices, with an average seating capacity of 230 and an average value of \$1,548, and 1,385 communicants, of whom 1,265 are in Michigan and 120 in South Dakota.

XV.—SUOMAI SYNOD.

BY COUNTIES.

COUNTIES.	Number of organizations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.	STATES.	Number of organizations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.
MICHIGAN:								SUMMARY BY STATES.							
Gogebic.....	1						109	Michigan.....	10	7 $\frac{1}{2}$	1,715			\$10,973	1,265
Houghton.....	3	2 $\frac{1}{2}$	825			\$5,687	540	South Dakota.....	1	1	290			1,925	120
Luce.....	1	1	140			686	50	Total.....	11	8 $\frac{1}{2}$	1,915			12,898	1,385
Marquette.....	5	4	750			3,600	575								
Total.....	10	7 $\frac{1}{2}$	1,715			10,973	1,265								
SOUTH DAKOTA:															
Brown.....	1	1	290			1,925	120								

THE UNITED NORWEGIAN EVANGELICAL LUTHERAN CHURCH.

This body was constituted in 1890 by the union of three synods, viz: The Norwegian Augustana Synod, organized in 1860, the Conference of the Norwegian-Danish Church, organized in 1870, and the Norwegian Anti-Missouri Brotherhood, organized in 1887. The latter separated from the

XVI.—UNITED NORWEGIAN LUTHERAN CHURCH OF AMERICA—CONTINUED.

COUNTIES.	Number of organi- zations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.	COUNTIES.	Number of organi- zations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.
MINNESOTA—Con'd.								NORTH DAKOTA— Con'd.							
Rock	6	1	300	sh4/5 ph1	325	\$1,500	427	Steele	9	3	550	h1 sh2/4 ph1	225	\$4,200	580
Saint Louis	7	6	2,250	sh1/2 ph1	100	24,150	694	Towner	1			h1			85
Stearns	3	1	200	sh1/2 ph1		2,000	213	Traill	10	4	1,125	sh4/5 ph1	350	9,300	761
Steele	9	8	1,580	sh3	240	11,100	786	Walsh	23	9	2,080	sh1/4 h2 ph1	1,030	15,000	1,760
Stevens	5	5	1,050	sh1	100	7,000	692	Ward	4			ph4			166
Swift	7	4	650	sh1		4,600	640	Total	162	41	10,380	100	6,225	77,550	10,283
Todd	8	6	1,300	sh1		8,500	779	OREGON:							
Wadena	1			sh1			14	Clackamas	2	1	100	ph1		1,000	78
Waseca	4	3	1,300	sh1		11,500	786	Clatsop	1	1	550			8,500	50
Watowan	8	5	1,175	h1/2 sh2/3 ph1	320	9,500	704	Multnomah	1						20
Wilkin	1			ph1			35	Wasco	1			ph1			
Winona	3	3	800			8,000	352	Total	5	2	650	2		9,500	294
Wright	1	1	300			2,000	144	SOUTH DAKOTA:							
Yellow Medicine	14	10	3,100	sh4	300	29,800	1,964	Aurora	2	1	100	ph1		250	49
Total	405	282	76,791	106	8,175	608,200	49,541	Beadle	2	2	200			1,300	62
MISSOURI:								Bonhomme	2	2	350			1,000	123
Dekalb	1			ph1			14	Brookings	9	3	1,100	sh5	350	7,850	450
MONTANA:								Brown	9			sh3/7 sh4/5 ph1	575	426	
Meagher	1			sh1	50		52	Brule	4			sh3/7 sh4/5 ph1	195	75	
Park	1			sh1	50		35	Buffalo	1			sh1	75	50	
Total	2			2	100		87	Campbell	4			sh2/4 ph2/4	85	155	
NEBRASKA:								Clark	2	1	100	sh1	150	400	173
Boyd	1			sh1	40		17	Clay	3	3	850		4,100	217	
Custer	2			sh1/2 ph1	50		44	Codington	4	2	400	h1/2 sh1	175	4,000	168
Dixon	1			ph1			42	Custer	1					50	
Franklin	1			sh1	50		15	Davison	1			ph1		31	
Frontier	1			ph1			41	Day	11	4	575	h4 sh4/10 ph2	1,200	1,650	1,245
Furnas	1	1	100			250	20	Deuel	5			sh3/4 ph1/5 sh2/3 ph1	200	200	200
Hitchcock	1			sh1	50		29	Edmunds	3			sh2/3 ph1	100		82
Holt	1			sh1	50		18	Grant	2	1	150			800	107
Knox	2			sh1/2 ph1	40		46	Hamlin	5	1	100	sh4/5 ph1	300	300	309
Webster	2			sh1/2 ph1	50		27	Hanson	1						52
Total	13	1	100	12	330	250	285	Kingsbury	13	1R 1	200	sh10/11 ph1	500	400	427
NEW HAMPSHIRE:								Lake	7	3	550	h1/2 sh2/3	275	3,750	341
Coos	1	1	250			2,500	125	Lincoln	7	3	750	sh4	275	9,000	751
NEW YORK:								McCook	1			sh1	75	50	
Kings	1			h1	500		84	McPherson	1			sh1	75	50	
NORTH DAKOTA:								Marshall	4	1	200	sh3	225	1,500	221
Barnes	6	1	200	sh4	200	3,000	277	Miner	5	2	400	h1/2 sh2/3 h1	350	2,300	307
Benson	3			h1 sh1/4 ph2	300		109	Minnehaha	9	5	1,550	sh2/4 ph1	200	11,800	592
Bottineau	4			sh1/2 ph1	50		53	Moody	4			sh3/4 ph1	250		112
Burleigh	2			sh1/2 ph1			53	Pennington	1						49
Cass	7	2	850	sh3	225	8,000	461	Presho	1					30	
Cavalier	6			sh6	525		311	Roberts	1					178	
Dickey	2	2	350			2,000	150	Sanborn	2			sh2	200	130	
Eddy	3			sh3	175		117	Spink	2			sh2	100	43	
Foster	2			ph1			60	Sully	1	1	100			25	
Grand Forks	19	8	2,000	sh9/10 ph1	615	15,400	1,733	Turner	6			sh5	350	140	
Griggs	8	1	100	h1 sh3/7 ph3	200	350	370	Union	1	1	125			2,555	217
Kidder	1			sh1	50		18	Walworth	4			sh4	225	115	
Lamoure	2			sh2	80		115	Yankton	4	2	350	sh2	150	1,500	120
McHenry	3						96	Total	148	40	8,150	98	6,725	54,655	7,922
McIntosh	1			sh1	50		25	WASHINGTON:							
McLean	1			sh1	50		52	Chehalis	2						79
Morton	3	1	125	sh1/2 ph1	75	800	176	Clarke	1						48
Nelson	11	5	900	h1/2 sh4/5	250	3,200	717	Island	1						20
Pembina	3			sh1	50		133	Jefferson	1	1	200			2,000	56
Pierce	2			h1/2 sh1	250		195	King	4	2	550	ph1		5,000	136
Ramsey	3	2	400			3,700	128	Kitsap	1	1	175	ph2		1,200	55
Ransom	7	1	500	sh6	725	1,500	524	Lewis	2						47
Richland	11	5	1,200	sh5/6 ph1	425	11,100	575	Pierce	1	1	250			9,000	100
Sargent	3			sh2/3 ph1	200		191	Spokane	2	2	400			4,000	95
Stark	2			sh2	125		78								

XVI—UNITED NORWEGIAN LUTHERAN CHURCH OF AMERICA—CONTINUED.

COUNTIES.	Number of organi- zations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.	COUNTIES.	Number of organi- zations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.
WISCONSIN—Cont'd.															
Madison	1	1	750			\$7,500	145	Racine	3	3	1,050			\$8,500	475
Manitowish	1	1	1,050			1,050	38	Rock	3	3	1,050			10,000	625
Manitowish	1	1	1,050			1,050	38	Saint Croix	5	5	1,050			8,100	483
Manitowish	1	1	1,050			1,050	38	Sauk	1	1	100			500	35
Manitowish	1	1	1,050			1,050	38	Sawyer	1	1	200			2,000	120
Manitowish	1	1	1,050			1,050	38	Shawano	2	2	2,370	sh2	200	14,100	1,185
Manitowish	1	1	1,050			1,050	38	Taylor	1	1	150	hl	100	200	75
Manitowish	1	1	1,050			1,050	38	Trempealeau	14	11 1/2	4,410	sh1	100	28,500	2,319
Manitowish	1	1	1,050			1,050	38	Vernon	6	5	1,725	sh1	200	16,000	1,441
Manitowish	1	1	1,050			1,050	38	Walworth	1	1	250			3,000	35
Manitowish	1	1	1,050			1,050	38	Waukesha	3	3	525			5,375	196
Manitowish	1	1	1,050			1,050	38	Waupaca	3	3	1,375			9,000	1,227
Manitowish	1	1	1,050			1,050	38	Waushara	6	6	1,150			7,350	820
Manitowish	1	1	1,050			1,050	38	Winnebago	5	5	1,150			13,200	565
Manitowish	1	1	1,050			1,050	38	Wood	1	1		hl	150		18
Total	187	150 1/2	47,443	33	3,670	394,450	28,717	Total	187	150 1/2	47,443	33	3,670	394,450	28,717

SUMMARY BY STATES AND TERRITORIES.

STATES, ETC.	Number of organi- zations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.
Idaho	1	1	300			2,500	110
Illinois	27	24	6,445	2	100	68,400	3,298
Iowa	113	85	25,335	21	2,485	220,100	14,891
Kansas	7	3	650	4	75	5,300	314
Maine	2	1	200	1	200	2,000	225
Maryland	1			1	150		42
Michigan	27	22 1/2	5,973	5	450	60,450	3,011
Minnesota	405	282 1/2	76,791	106	8,175	608,200	49,541
Missouri	1			1	1		14
Montana	2			2	100		87
Nebraska	13	1	100	12	330	250	285
New Hampshire	1	1	250			2,500	125
New York	1			1	500		84
North Dakota	162	44	10,380	100	6,225	77,550	10,283
Oregon	5	2	650	2		9,500	204
South Dakota	148	40 1/2	8,150	98	6,725	54,055	7,922
Washington	19	10	2,575	4		20,600	819
Wisconsin	187	150 1/2	47,443	33	3,670	394,450	28,717
Total	1,122	668 1/2	185,242	393	29,185	1,544,455	119,972

INDEPENDENT CONGREGATIONS.

Besides the independent synods there are a number of independent Lutheran congregations; that is, congregations which do not belong to any synod. In most cases the reason is not doctrinal, but simply a love of independence. Not infrequently the pastor of an independent congregation is himself a member of some synod.

XVII.—INDEPENDENT CONGREGATIONS.

BY COUNTIES.

COUNTIES.	Number of organi- zations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.
ILLINOIS—Cont'd.							
Pulaski	1	1	250	sh1	75	\$1,500	50
Randolph	1	1	300			2,800	200
Stephenson	1	1	150			1,500	50
Vermilion	1	1	225			2,300	136
Washington	1	1					
Total	11	8	2,875	1	75	38,900	1,161
INDIANA:							
Allen	1	1	200			600	65
Clay	1	1	300			1,500	85
Deatur	1	1	450			1,700	75
Bipley	1	1	200			800	42
Tipton	1	1	100			1,000	80
Vigo	1	1	200			3,200	175
Whitley	1	1	300			4,000	100
Total	7	7	1,750			12,800	622

XVII.—INDEPENDENT CONGREGATIONS—CONTINUED.

COUNTIES.	Number of organi- zations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.	COUNTIES.	Number of organi- zations.	Church edifices.	Seating capacity.	Halls, etc.	Seating capacity.	Value of church property.	Communicants or members.
IOWA:								OHIO—Con'd.							
Calhoun	1	1	200			\$3,000	40	Mahoning	1	1	200			\$1,500	25
Clayton	4	3	850			8,400	651	Muskingum	1	1	100			500	20
Total	5	4	1,050			11,400	694	Perry	1	1	150			500	50
KANSAS:								Richland	1	1	350			5,000	220
Crawford	1	1	150			1,900	125	Total	12	11	3,850			122,000	2,682
MAINE:								OREGON:							
Cumberland	1	1	400			4,000	300	Clatsop	1	1	200			1,500	80
MARYLAND:								PENNSYLVANIA:							
Baltimore	1	1	500			8,000	125	Allegheny	1	1	600			8,000	750
Baltimore city	4	4	2,440			48,000	2,275	Franklin	3	3	1,200			8,000	525
Frederick	2	2	450			10,000	125	Lackawanna	1	1	350			2,500	150
Total	7	7	3,390			66,000	2,525	Philadelphia	1	1	900			40,000	400
MASSACHUSETTS:								Warren	1	1					22
Franklin	1	1	300			1,800	80	Westmoreland	1	1	300			4,500	85
MICHIGAN:								York	2	1	600			8,000	475
Houghton	4	4	900			3,500	1,059	Total	10	8	3,550			71,000	2,497
Saginaw	3			sh3	225	145	145	SOUTH DAKOTA:							
Wayne	2	1	120			735	145	Haud	1	1	300			1,200	62
Total	9	5	1,020	3	225	4,235	1,340	TEXAS:							
MINNESOTA:								Austin	1	1	150			300	100
Dodge	2	2	450			5,000	850	Bastrop	1					26	
McLeod	1	1	300			5,449	225	Williamson	1					30	
Meeker	1			hl	200	100		Total	3	1	150			300	150
Redwood	1			sh1	100	48		UTAH:							
Scott	1	1	600			3,500	90	Salt Lake	1						12
Total	6	4	1,350	2	300	13,940	1,313	Weber	1						24
MISSOURI:								Total	2						36
Schuyler	2	1R 1	400			500	190	WISCONSIN:							
Verona	1			hl	75	27		Dodge	3	2	700	sh1	100	6,000	359
Total	3	2	400	1	75	500	217	Duor	4	4	850			4,600	421
NEBRASKA:								Kewaunee	1	1	184			1,600	264
Gage	1	1	200			1,500	75	Outagamie	1	1	300			2,000	250
Hall	1			sh1	100	36		Rock	1	1	250			4,000	60
Johnson	1	2	120			1,800	61	Sheboygan	1	1	250			3,000	250
Lancaster	1	1	220			3,000	200	Waupaca	1	1	250			1,500	200
Nemaha	1	1	200			6,000	210	Winnebago	1	1	200			2,500	300
Saunders	1			sh1	60	52		Total	13	12	2,984	1	100	26,200	2,114
Total	6	5	740	2	160	12,200	634	SUMMARY BY STATES AND TERRITORIES.							
NEW JERSEY:								STATES, ETC.							
Camden	1	1	125			150	17	Alabama	1			1			7
Cumberland	2	1	350	hl	400	1,000	30	California	2	1	500	1	200	95,000	735
Union	1	1	200			4,500	100	Georgia	1	1	600			15,000	230
Total	4	3	675	1	400	5,650	147	Illinois	11	8	2,875	1	75	38,900	1,161
NEW YORK:								Indiana	7	7	1,750			12,800	622
Kings	2	1	500	hl	150	16,000	335	Iowa	5	4	1,050			11,400	694
Westchester	1	1	200			7,000	25	Kansas	1	1	150			1,500	125
Total	3	2	700	1	150	23,000	360	Maine	1	1	400			4,000	300
NORTH DAKOTA:								Maryland	7	7	3,390			66,000	2,525
Grand Forks	1	1	300			1,500	8	Massachusetts	1	1	300			1,800	80
Ransom	1						60	Michigan	9	5	1,020	3	225	4,235	1,340
Total	2	1	300			1,500	68	Minnesota	6	4	1,350	2	300	13,940	1,313
OHIO:								Missouri	3	2	400	1	75	500	217
Brown	1	1	200			1,500	250	Nebraska	6	5	740	2	100	12,300	634
Columbiana	1	1	400			4,000	225	New Jersey	4	3	675	1	400	5,650	147
Cuyahoga	1	1	150			3,000	63	New York	3	2	700	1	150	23,000	360
Fairfield	1	1	300			1,000	40	North Dakota	2	1	300			1,500	68
Franklin	1	1	1,000			80,000	800	Ohio	12	11	3,850			122,000	2,682
Hamilton	1	1	500			15,000	750	Oregon	1	1	200			1,500	80
Highland	1						40	Pennsylvania	10	8	3,550			71,000	2,497
Jefferson	1	1	500			10,000	200	South Dakota	1	1	300			1,200	62
								Texas	3	1	150			300	156
								Utah	2						26
								Wisconsin	13	12	2,984	1	100	26,200	2,114
								Total	112	87	27,634	14	1,685	530,125	18,096

CENSUS BULLETIN.

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December 16, 1891.

AGRICULTURE.—IRRIGATION IN MONTANA.

DEPARTMENT OF THE INTERIOR,

CENSUS OFFICE,

WASHINGTON, D. C., November 14, 1891.

This bulletin, the fifth of the series devoted to irrigation in the arid states and territories, has been prepared by Mr. F. H. NEWELL, special agent of the Census Office for the collection of statistics of irrigation, under the direction of Mr. JOHN HYDE, special agent in charge of the Division of Agriculture, and relates to the state of Montana, in which there are 3,706 farms that are irrigated out of a total number of 5,664. The total area of land upon which crops were raised by irrigation in the census year ending May 31, 1890, was 350,582 acres, in addition to which there were approximately 217,000 acres irrigated for grazing purposes. The average size of the irrigated farms, or, more strictly, of irrigated portions of farms on which crops were raised, is 95 acres. The average first cost of water right is \$4.63 per acre, and the average cost of preparing the soil for cultivation, including the purchase price of the land, is \$9.54 per acre. The average present value of the irrigated land of the state, including buildings, etc., is reported as \$49.50 per acre, showing an apparent profit, less cost of buildings, of \$35.33 per acre. The average annual cost of water is \$0.95 per acre, which, deducted from the average annual value of products per acre, leaves an average annual return of \$12.01 per acre.

The tendency throughout the entire arid region to describe as irrigated all land to which water has been applied within any recent period by artificial means, land to which ditches perhaps so far destitute of water have been constructed, and even land for which water rights merely are claimed, has placed the Census Office under the necessity of absolutely restricting itself in its official bulletins on irrigation to land on which crops were actually raised by the artificial application of water during the year 1889. The farms or stock ranches in Montana irrigated merely for grazing purposes have therefore not been taken into account in this bulletin beyond the foregoing statement as to their approximate total area.



Superintendent of Census.

IRRIGATION IN MONTANA.

BY F. H. SEWELL.

In Montana crops were raised by irrigation in the census year ending May 31, 1890, on 350,582 acres, or 547.73 square miles, nearly four tenths of 1 per cent of the entire area of the state. The enumerators' schedules indicate that probably three-fourths of this crop area was devoted to the raising of various kinds of forage. In addition to the irrigated area from which crops were cut or gathered, there were approximately 217,000 acres irrigated for grazing purposes, the exact acreage of which, however, could not be ascertained on account of conflicting statements. It should be noted that in the bulletins of this series irrigated acreage in crop only is given, for the reason that accurate statistics were not obtainable concerning the acreage irrigated but upon which no crops were produced. In Montana and other states where cattle raising is an important industry great areas are watered, with various degrees of thoroughness, for the purpose of raising feed for cattle. Individual ideas vary widely as to the use of the term "irrigated" in this connection, and therefore for accuracy and clearness, as well as for the purpose of making comparisons with the area of crops irrigated in other states and territories, this restricted use of the term "irrigated" has been adopted.

The aggregate number of farms in Montana on June 1, 1890, was 5,664, and of these 3,706, or about two-thirds, contained irrigated areas, the remaining third being stock ranches upon which no irrigation was practiced. The total crop area irrigated on these 3,706 farms was only 23 per cent of the total area of lands owned by the irrigators.

The average size of the irrigated farms, or rather of irrigated portions of farms on which crops were raised, was 95 acres. Using the word "farm" to include only those areas upon which crops were raised, the following classification has been made: 32 irrigated farms of 640 acres or upward, 123 of from 320 to 640 acres, and 421 of from 160 to 320 acres. These 576 farms contained an average of 307 acres each, and had a total area of 176,573 acres, or a trifle over one-half of the entire amount watered in the state. The remaining 3,130 farms under 160 acres in size comprised nearly 50 per cent of the total irrigated area, and averaged 56 acres each.

COUNTIES.	Number of irrigators in 1890.	Total irrigated acreage in crop in 1890.	Average size of irrigated crop areas in acres in 1890.
Total	3,706	350,582	95
Beaumont	204	42,000	195
Cascade	73	4,411	60
Chouteau	30	2,814	73
Custer	60	4,302	72
Dawson	12	194	16
Deerhodge	470	50,048	108
Fergus	251	30,401	121
Gallatin	434	46,001	108
Jefferson	184	15,105	82
Lewis and Clarke	231	15,441	67
Madison	345	36,810	107
Meagher	200	30,324	151
Missoula	504	22,401	44
Park	330	19,735	60
Silverbow	75	5,068	80
Yellowstone	144	13,180	92

The results shown in the above table were obtained by the compilation of the enumerators' returns of the area of crop and value of products for each irrigator in the state. After mining,

the principal industry of Montana is the raising of sheep and cattle, and therefore, as might be expected, the crop is mainly for forage. The average size of irrigated farms is very large as compared with that in the states and territories where fruits and vegetables form the larger percentage of products. As a general rule the irrigated farms are smallest in the counties whose altitude is lowest and where agriculture proper gains in relative importance, although the existence of a few large ranches brings up the average and obscures the operation of this rule.

The average first cost of bringing water to the land throughout the state is estimated from the statements of the farmers to have been \$4.63 per acre, ranging by counties from \$2 per acre up to \$17 per acre. The average selling value placed by the irrigators upon their water rights is \$15.04 per acre. This is the price which the water rights, if transferable without the land, might be expected to bring per acre.

The average annual expense of water rental or of maintaining the ditches, of repairing breaks in the headworks or main ditch, and of cleaning out the sediment, wherever this is deposited, as estimated by the farmers, is 95 cents per acre, the averages from the different counties ranging from 43 cents to \$3.07. These repairs are in the majority of cases of the most simple character, and consist merely in rebuilding portions of the banks where they have been washed out by heavy rains or trampled down by cattle and in filling up the holes made by burrowing animals. Wherever there are flumes, these must be examined and perhaps repaired with the expenditure of a few boards and nails. The main work, however, is usually that of replacing the temporary diverting dam in the stream to turn the water into the ditch.

The cost of preparing the ground for cultivation, excluding the cost of bringing water to the land, but including such items as plowing, clearing off brush, if any, leveling the roughest places, and fencing, was \$8.29 per acre. This is the average of the statements given by the irrigators as to the cost when such preparation was necessary, but it must be remembered that there are extensive areas on which forage crops were cut where there was practically no preparation of the soil. Water has been turned upon the fields year after year until in time good crops have been obtained without preliminary plowing or even the sowing of grass seed. This cost therefore applies only to the tilled land, and not to all the land cropped. Adding to this amount the government price of \$1.25 per acre, and also the cost of bringing the water to the land, \$4.63 per acre, the total cost of the tilled land to the irrigator was \$14.17 per acre. In comparison with this the estimated average value of the land on which crops were raised by irrigation is placed by the farmers at \$49.50 per acre, showing an apparent profit, less cost of buildings, of \$35.33 per acre.

Deducting the average annual expense for water, 95 cents per acre, from the average annual value of productions, which was \$12.96 per acre, it appears that the average annual return per acre is \$12.01.

In the following table the more important of the foregoing statements are compared with those for Arizona, the statistics for which were published in Bulletin No. 35, dated February 27, 1891; for New Mexico, contained in Bulletin No. 60, dated April 30, 1891; for Utah, Bulletin No. 85, dated June 29, 1891, and for the adjoining state of Wyoming, Bulletin No. 107, dated August 27, 1891:

ITEMS.	Arizona.	New Mexico.	Utah.	Wyoming.	Montana.
Total irrigated acreage in crop.....	65,821	91,745	263,473	229,076	350,582
Total number of irrigators.....	1,075	3,085	9,724	1,917	3,706
Average size of irrigated farms, in acres (crop area only).....	61	30	27	119	95
Average size of irrigated farms of 100 acres and upward, in acres.....	287	312	312	494	307
Per cent of acreage of irrigated farms of 100 acres and upward to total acreage irrigated.....	34	21	19	65	50
Average size of irrigated farms under 100 acres, in acres.....	43	24	25	50	56
Average first cost of water right per acre.....	\$7.07	\$3.58	\$10.55	\$3.62	\$4.63
Average annual cost of water per acre.....	\$1.55	\$1.54	\$0.91	\$0.44	\$0.95
Average first cost per acre of preparation for cultivation.....	\$8.60	\$11.71	\$14.85	\$8.23	\$8.29
Average present value of irrigated land, including buildings, etc., per acre.....	\$48.68	\$50.98	\$84.25	\$31.40	\$19.50
Average annual value of products per acre.....	\$13.92	\$12.80	\$18.03	\$8.25	\$12.96

This table gives the details of irrigation for a broad belt of country extending from south to north across the United States, and a comparison of the figures, one with another, brings out the differences in agricultural development in these states and territories, arising not only from differences in topographic and climatic conditions, but also from varying degrees of progress in settlement. This fact is most clearly shown in the average size of the irrigated farms, using the word "farm" in this case to include the irrigated crop area on each ranch. In Utah, with its extraordinarily high state of agricultural development, the farms are exceedingly small, while the other extreme in size is reached in Wyoming, where nearly the entire crop consists of various kinds of forage.

Montana approaches Wyoming in regard to the average size of its farms, but it does not reach so great an extreme, the farms averaging 95 acres, against 119 acres in Wyoming. This contrast is still better brought out by examination of the irrigated farms of 160 acres and upward, these larger areas forming, in the case of Wyoming, 65 per cent of the total area on which crops were cut, while in Montana they form 50 per cent and in Utah only 10 per cent. Separating the irrigated crop areas under 160 acres in extent from the larger areas, it is found that in Montana the average size of these smaller farms is 56 acres, as against 50 acres in Wyoming, showing that as a whole the patches of land that can be irrigated by a single farmer are larger in Montana than in Wyoming, and, since this area is largely devoted to forage and requires comparatively little personal attention, these small farms are over twice as large as the small farms in Utah and New Mexico, where more fruit and vegetables are cultivated.

The first cost of water and likewise its annual cost were also higher in Montana than in Wyoming, while the cost of preparing the land for cultivation was practically the same. The greater first cost of water and the smaller size of farms are accompanied also by a higher average value of land and of products in Montana than in Wyoming, they being approximately the same as in Arizona and New Mexico, though much below those of Utah. The advantages of good markets in the mining regions and an ample water supply on the bottom lands of the lower valleys in Montana thus apparently counterbalance any difference in climate that might be to the disadvantage of the state. Probably also the energetic, progressive character of the population has its influence in this direction.

The topography of Montana is somewhat complicated and difficult to picture. The two striking features are the continental divide crossing the western half of the state in a general northwesterly direction and the great prairie region stretching away to the east. The main range of the Rocky mountains, which forms the divide, is not absolutely continuous, nor does it everywhere trend in the same general direction. On reaching the state from the south and leaving the Yellowstone National Park, the divide, instead of continuing in a general northwesterly direction toward Helena, swings off to the west for about a hundred miles, and then sweeps around toward the north and east again, forming a great irregular arc, inclosing the drainage area of the Jefferson river, thus including Beaverhead and Madison counties and portions of the counties of Gallatin and Silverbow.

From the point where this great arc swings to the north and east the Bitterroot mountains continue in a general northwesterly direction parallel to the main part of the continental divide, and at a distance of 100 miles or more to the west. Between these two great ranges are many minor mountain masses and long valleys, some of the latter broadening in places to form plains of considerable size. The drainage from these valleys, uniting into Clarke fork of the Columbia or into the Kootenay river, cuts through this mountain range and, flowing westerly and northerly, forms the main stream of the Columbia.

Eastward from the continental divide toward the Great Plains the main range does not die gradually into the prairie, but there are many mountain ranges breaking the simplicity of the plan. The drainage flowing northward or eastward unites in the Missouri river, to the east of which rises a range of mountains known as the Belt range, with the great Absarokas to the south, these ranges being in general parallel with the continental divide and occupying about the same relative position as the front ranges further to the south. From the Belt mountains eastward are in turn mountain masses occupying positions further out toward the plains. The

most northerly of these is the Highwood mountains; south of these the Big Snowy, and further to the south the Crazy mountains, while passing over the Yellowstone to the southern boundary of the state are found the Bighorn mountains, lying still further to the eastward.

The drainage of the country, its water supply, and consequently its agricultural development, are governed by the relative position and altitude of these mountain masses. By their position in a general northerly and southerly direction long valleys are formed following the same general course, as, for example, that of the Missouri below the Three Forks and of Smiths river on the east of the Belt range, while, on the other hand, the ranges projecting outward toward the prairies seem partially to encircle great basins, as, for example, that of the Judith, surrounded on the north by the Highwood mountains and by the Little Belt further south, and that of the Musselshell, partially inclosed by the Little Belt and Crazy mountains. The altitude of these mountains determines to a large extent the water supply of the valleys at their bases, the effect of altitude being modified, however, by the direction of the prevailing winds.

The surface of Montana, taking the state as a whole, does not have an altitude as great as that popularly attributed to it. Nearly one-half of the state is below the elevation of 5,000 feet, this being mainly the eastern end of the state, out on the Great Plains, where the population is very scanty. Most of the tilled land, as well as of the population and the various industries, is found among the mountains in the western half of the state. The broad valleys in which agriculture is practiced are in few cases less than 4,000 feet in altitude, the greater part of the land now under cultivation being at an elevation of from 4,000 to 5,000 feet.

Taking the area of the state as a whole, it has been ascertained that 49 per cent is under 5,000 feet above sea level, 21 per cent from 5,000 to 6,000 feet, 14 per cent from 6,000 to 7,000 feet, 9 per cent from 7,000 to 8,000, and 7 per cent over 8,000. This distribution of altitude must be taken into consideration when discussing the agricultural possibilities of the state, for high mountain masses furnishing perennial streams are as important to future development as low-lying valleys with a fertile soil and a genial climate. The great problems to be solved and the doubts as to agricultural possibilities relate mainly to the vast low-lying areas not broken by lofty mountains.

Montana is the most northerly state of the arid region, and thus probably, taking all things into consideration, the agricultural land requires as a whole less water than that of any other state, although it may actually receive as much or more. In fact, in the northwestern part of the state crops are often raised without irrigation, the rainfall in ordinary seasons being sufficient for all needs. This extreme corner may be said to lie in the subhumid region. Even here, however, there are years of drought, as 1889 and 1890, when crops are almost a complete failure, and the necessity of irrigation as a means of insurance against loss is apparent. Many of the bottom lands, and even the benches, when not irrigated yield in favorable years from one-half ton to one ton of hay per acre, this quantity, however, being increased several fold where irrigation is practiced. Some of the stock raisers state that hay raised without the artificial application of water, though less in quantity, is much better in quality, from the fact that irrigation destroys certain of the valuable native grasses.

In many parts of the state the rainfall is usually sufficient to bring the crops almost to maturity, and often only one watering is required. The grain may be nearly ripe when the dry, hot winds sweep down upon it, parching the vegetation and soil. If water is not then at hand in abundance all the past labor will be a complete failure, but with the application of water, at this critical period the grain will fill to an abundant harvest. This one watering then is as essential to the success of the crops as are the three or four waterings of the more arid sections, for without it the crops are ruined. Thus the necessity of irrigation is as great as, although the quantity of water and the time required in applying it may be less than, in states further to the south.

The mean annual rainfall for the entire state is about 15 inches, varying greatly, however, with the altitude of the locality, the high summits probably receiving 30 inches or more of water, usually in the form of snow, while the lower plains may receive 10 inches a year, or even less. This amount of rain, if it were precipitated mainly during the winter or distributed evenly

throughout the year, would be of less value than at present for agricultural purposes; but fortunately it falls mainly during the earlier part of the crop season, causing the seed and young plants to start vigorously and bringing the crop rapidly forward toward maturity. It does not, however, as a rule, continue late enough in the season to allow the crops to become ripe, and therefore irrigation must be had recourse to. It may be said that nothing can be successfully raised without the artificial application of water in the latter part of July and in August and September, and any ranchman preparing to cultivate land not under irrigation would now be regarded by his neighbors as insane. For many years, however, attempts have been made to induce the Indians on the reservation to take up agriculture, and in many of these cases the land, being without systematic irrigation, has not been able to produce sufficient crops to repay the trouble involved. The Indian Bureau is, however, now having surveys made along the Bighorn river and the Little Bighorn for the purpose of diverting water upon the agricultural lands of the Crow Indians, and it is probable that suitable systems of irrigation will soon be completed on this and several other reservations.

The signal service of the United States army has kept records of the rainfall at 25 stations or more in different parts of the state, most if not all of these being on comparatively low ground, at military posts or at towns in the more fertile valleys. The average distribution of the rainfall throughout the year is well shown by the mean precipitation at these various stations for the time during which observations have been made. The average rainfall for all years and stations was, for January, 1.0 inch; for February, 0.6 inch; March, 0.9; April, 1.0; May, 2.5; June, 2.4; July, 1.3; August, 1.4; September, 1.0; October, 1.0; November, 0.7, and for December, 0.9 inch. It is thus seen that the rainfall during May and June is on an average one-third that of the entire year, while that of July and August is a little over one-half that of the previous two months but greater than during any other season of the year, so that the distribution of the rainfall by months is on the whole favorable for agriculture.

The annual distribution of the rain is of more than usual interest in connection with the crops of the census year, for 1889 and 1890 were known as years of drought. Comparing the rainfall as measured for the last decade at several stations in Montana, it is found that for these localities the average is as follows: In 1880 the total depth of rain was 14.5 inches; in 1881, 13.8 inches; 1882, 12.6; 1883, 12.6; 1884, 17.2; 1885, 11.7; 1886, 12.1; 1887, 16.4; 1888, 13.5, and in 1889, 9.5 inches. The most prominent feature about this record is the great rainfall of 1884, a year when there was an unusual abundance of water throughout the west and the rivers were extraordinarily high. On the other hand is to be seen the deficient rainfall of 1889, when the rivers shrank in many instances far below the level of previous years. These fluctuations in the amount of rainfall year by year are to be found not only in the arid region, but throughout the world, but in dry countries they are more noticeable, from the fact that all occupations and land values are intimately connected with the supply of water. A year of deficient rainfall, especially if the deficiency occurs shortly before or during the crop season, is therefore to such countries a calamity of more than ordinary destructiveness.

It should be recognized that the value of the rainfall to the farmer does not consist merely in its quantity or distribution throughout the year, but that there are other facts of almost equal importance, such as the temperature, wind movement, and other climatic factors. The amount of water available in the streams also is greatly influenced by matters of apparently minor importance. For example, if the preceding fall is dry the snow of the winter serves to saturate the ground, and a supply is thus stored up for the springs along the stream, while, on the other hand, if the snow falls on frozen earth, a large portion may be evaporated or may melt and flow away rapidly without saturating the ground beneath, and thus be of little benefit in increasing the summer flow of the rivers.

Montana includes on the east a portion of the Great Plains region, and on the west a part of the continental divide, the state extending beyond the main range of the Rockies to the Bitterroot mountains on the western border. There is thus a wide difference in topography from the serrated peaks and narrow valleys, watered by perennial streams, to the broad expanse of the prairie, whose soil and vegetation are dry and parched during a great part of the year. The progress of

settlement has been governed by these topographic features. Following on the hunters and trappers who first explored these regions came the wandering stockmen, who settled on the bottom lands in the valleys of the western part of the state. The slow, natural transition from pastoral industries to the tilling of the soil was soon broken by discoveries of precious metals among the mountains, and in the rush to the mines agriculture and stock raising became of little relative importance. The necessity, however, of supplies for the mining camps soon encouraged the growth of agriculture and stimulated it to a development far in excess of that which would have taken place in the ordinarily slow growth of a farming community.

The ease with which water could be brought upon the land and the favorable location of mines furnishing a market for the sale of produce have caused western Montana, indirectly, because of its mountains, to be the most thickly settled and well cultivated part of the state, while the eastern plain or prairie region, with its almost boundless extent of fertile soil and its great rivers, the Missouri and Yellowstone, is still thinly settled, and must remain so until, by the employment of a large amount of capital and engineering skill, these rivers are brought out by great irrigating systems upon the land.

Cattle raising is a notable industry even in the mining regions, but it reaches its greatest importance on the plains to the east, especially in Choteau, Custer, Dawson, Fergus, and Yellowstone counties. The raising of sheep occupies mainly an intermediate ground, the largest herds being found in Cascade, Choteau, Fergus, and Meagher counties, these being in the central and northern parts of the state.

One of the most important factors in the agricultural development of the state is found in the geological structure of the valleys lying among the mountains on both sides of the main range. In nearly every instance these ancient valleys have in a remote past been eroded to depths greater than at present, and then, through the result of movements of the mountain masses, they were converted into lakes, the sediment from whose waters has deeply buried their former bottoms. The waters of the lakes have in the lapse of geologic time cut gorges or canyons at the outlets, and thus not only have the lakes been drained, but the waters, continuing their down-cutting in the canyons, have also worn steep-sided channels in the sediments of the ancient valley bottoms. The result is that now in each of these broad mountain valleys the river occupies a comparatively narrow, steep-walled depression in the old valley bottom from forty to a hundred feet in depth. Not only has the main river cut for itself a narrow valley in the ancient deposits, but also each minor tributary has carved its own channel deep into these beds. These almost level lands, stretching from the bluffs bounding the river back to the mountains, are locally known as "bench lands".

The effect of these characteristic bench lands upon the agricultural development of the country is at once apparent. The settlers have from necessity occupied the low bottom lands along the streams and have taken out the water wherever possible to cover these narrow areas, while the broad, level bench lands (the rich deposits from ancient lakes, now cut and gashed by every stream) rise high above the flowing water and usually defy all individual efforts to bring the water upon their parched surfaces. Much of this land on the top of the benches is of wonderful fertility, while other portions are covered with coarse material washed from the mountains.

The waters of the small streams are appropriated and used on the lower grounds, being employed to their full extent during the late summer, but a large excess flows away during the spring. The main stream of the valley is usually untouched, from the fact that it has cut so deeply and its volume is so great that individuals can not divert it upon their land. The problem of agricultural development in these great intermountain valleys is thus twofold. It is, first, to bring out the water of each principal stream by diversion above the head of the valley into great canals leading out on each side of the valley and running down as close to the mountains as possible, crossing the coulees or gashes cut by the side streams, and covering as much as possible of this fertile bench land, and at the same time to divert upon the bench lands lying above the grade of the great canal systems just mentioned the waters of the side streams, which should be conserved by minor storage systems in the mountains, holding the flood water until later in the season.

It is doubtful if in any valley a complete system of this kind can ever be carried out to utilize fully the agricultural resources of that area, but the plan in its main features will always remain

as an ideal to be realized as nearly as possible. The great obstacle to its complete development is the fact that growth has taken place in the reverse direction, and that to attain a theoretically perfect system nearly all that has been done must be undone, and vested rights already acquired must be extinguished at a cost that can be appreciated only by those who have attempted to purchase this class of property.

The second problem of agricultural development in Montana, greater even than that of the best use of water in the intermountain valleys, is that of the utilization of the great plains by means of waters from those magnificent rivers, the Missouri and Yellowstone. These rivers have cut for themselves valleys and channels in the high plain or prairie region, so that now they are bounded, as in the case of the rivers of the mountain region, by steep bluffs rising hundreds of feet in height. Here are found engineering problems of the greatest magnitude as to the feasibility of diverting all or any of the waters of these streams upon this high, rolling prairie country, which is broken in places by buttes or carved along the river valleys into deep coulees.

In many instances it is impossible to bring the water of either of these rivers out upon the plains on account of the relative elevations, but there are opportunities where, by the construction of expensive diverting works and canal lines, the water can be brought gradually along the edges of the bluff, winding in and out and crossing great coulees, until it finally reaches the nearly level land of the prairie. Here, then, it becomes a question of enormous expenditure, and such works can be undertaken only by corporations with almost unlimited financial resources, or by the government, either national or state.

The inauguration of such great enterprises, looking toward the development of the agricultural resources of Montana, either in the large intermountain valleys or upon the great plains to the east, must be preceded by a most careful investigation of the surrounding circumstances, in order to obtain a thorough knowledge of all the physical conditions and to leave nothing of this nature to chance. Among the facts of first importance is that pertaining to the distribution of the water in the rivers throughout the year and from one year to another, thus requiring long periods of time in order to obtain the range of discharge of the principal streams and their behavior. Fortunately work of this kind has already been begun by the United States Geological Survey, and data of great value have been obtained, casting light upon many of the problems of water conservation and consequent agricultural development.

Stream measurements have been well distributed over the state, and rivers have been studied at points where the results might be of the greatest value in the future development. A few of these results may be mentioned as showing the water resources of the state and the regimen of the rivers. The results of all measurements are given in second-feet, or cubic feet per second, since this is a definite unit and the one recognized by all engineers. The second-foot is a quantity of water equivalent to a stream 1 foot wide, flowing at the average rate of 1 foot per second. Statements of quantity are also given in acre-feet, a unit which does not imply the idea of time, an acre-foot being the quantity of water which would cover an acre 1 foot in depth, that is, 43,560 cubic feet. It is convenient to remember that 1 second-foot flowing for one day is equivalent to 1.98 acre feet, or, in round numbers, 2 acre-feet.

Before the value of the water flowing in the various rivers can be discussed it is necessary to make some assumption regarding the duty of water in Montana; that is, the relation between the quantity of flowing water used by the irrigator and the area of the land upon which he employs it. Water duty in this state is very low; that is, far greater quantities are used than are necessary. A large number of estimates have been made by owners of canals and ditches as to the amount of water actually used by them in various parts of the state. The statement of these is given in the legal unit, the miner's inch, a quantity, however, which varies with the method of measurement, in some instances being 25 per cent larger than in others. As a general statement, however, it may be said that from 40 to 50 miner's inches make a second-foot.

The method of measuring water as prescribed by the Montana law calls for an aperture 6 inches high, with a pressure of water standing 3 inches above the top of the aperture, the amount of water to be varied by means of a slide moved in a horizontal direction. For example, with the water standing at all times under a 3-inch head and the slide open a width of 1 inch, 6 miner's

inches will be passing through the aperture; if pulled further out to 5 inches in width, 30 miner's inches will pass through the aperture, although as a matter of fact under these conditions more than five times the quantity of water will pass through. Although the law prescribes a certain size of measuring box, in ordinary practice this particular size is seldom employed. Sometimes the head of water is 4, 5, 6, or even 7 inches, the quantity increasing, of course, with the increase of pressure. The aperture itself is seldom 6 inches high, but it may be of any height to suit the convenience or whims of the ditch owners. The miner's inch is thus an indefinite quantity, and it is necessary to define in each case the method of measurement in order to arrive at any conception of the actual quantity, and for strict accuracy it is necessary to ascertain the character of the edge of the aperture, whether flat, rounded, sharp, smooth, or rough, as well as many other facts of detail.

The difference in miner's inches is illustrated by a few of the following statements: An officer of one canal company reports that an aperture 12 inches wide and 1 inch high under a 6-inch head is considered by his company to deliver 12 miner's inches, and that 40 of these inches flowing continuously through the season will irrigate 160 acres. Another man states that the flow through an aperture 6 inches wide and 6 inches high under a 6-inch pressure is in his locality considered as 36 miner's inches. As an extreme case may be given that in which water is measured by a box with an aperture 12 inches high and 36 inches wide with 3-inch pressure, giving what is considered to be 432 miner's inches. Even with this quantity it was considered necessary to use 125 inches for 100 acres.

As a matter of course the quantity of water required in irrigation varies greatly with the character of the soil, the preparation of the surface, the position of the laterals and furrows, and the skill of the farmer, as well as the dryness of the climate; but while there is wide variation, there is also a certain average which will give a definite idea of the quantities involved. The range of the statements of irrigators, as previously mentioned, is very great, being on the one extreme from 250 miner's inches to 100 acres down to 40 miner's inches to 160 acres, the latter being given by the officers of a corporation offering water for sale. The average of estimates from all parts of the state is 96 miner's inches to 100 acres, an amount of water surprisingly great.

Assuming that there are 50 miner's inches in a cubic foot, these statements in definite quantities give a water duty on the one extreme of 5 second-feet to 100 acres, or 1 second-foot to 20 acres, and on the other extreme of 1 second-foot to 200 acres, the average of all the statements giving 1 second-foot to 52.1 acres. If, however, we assume 40 miner's inches to the second-foot, the minimum, maximum, and mean of the statements give, respectively, 1 second-foot to 16 acres, 160 acres, and 41.7 acres. These statements are introduced to show either that the average water duty is almost ridiculously low, or else that the great body of irrigators have no conception of the amount of water used by them. From the examination, however, of all engineering data at hand, it is safe to assume that the water duty rarely rises in actual practice above 70 acres to the second-foot, although probably it could be made to average 100 acres or over. With this understanding the value of the flowing waters of the state can be better appreciated.

The Yellowstone has been measured at a point near Horr, below the Gardiner river, the observations continuing over a period of two years. During that time the maximum flow, occurring in June, 1890, was approximately 12,000 second-feet, and the minimum, in March, 1891, 300 second-feet, the least for many years, while the mean for the two years was 2,780 second-feet. This amount of water per year is equivalent to 2,012,184 acre-feet; in other words, in round numbers it would cover two million acres one foot in depth. The drainage area at this point is 2,700 square miles in extent, and this amount of water, if put back on the drainage area, would cover it to a depth of 14 inches. Daily observations have also been made on the West Gallatin river above the headworks of the canals diverting the water upon the Gallatin valley, the maximum flow for two years at this place being 3,800 second-feet; the minimum flow, 280 second-feet; the average, 857 second-feet. This amounts per year to 620,297 acre-feet, and this volume of water, if spread out on the drainage area of 850 square miles, would cover it to the depth of 13.7 inches.

The amount of water flowing out of the Madison valley has also been determined, the maximum being in May, 1890, 6,420 second-feet; the minimum, 1,200; the mean, 1,995; total

discharge for year, 1,443,981 acre-feet; and the depth drained during the entire year from an area of 2,085 square miles, 13 inches. Passing over measurements of mere local importance, it is interesting to note the measurements of the Missouri itself at Craig, a point about thirty miles north of Helena. Here the maximum for the past two years was 12,500 second-feet, the minimum about 1,700 second-feet, and the mean 4,715 second-feet, or for a year 3,412,737 acre-feet. This water flowed from a drainage area of 17,615 square miles, and would cover this area to a depth of 3.6 inches.

An agriculturally important tributary of the Missouri is the Sun river, which flows into it at Great Falls after passing through a portion of the northern plains. Measurements were made of the supply in this river 18 miles above Augusta, showing that the maximum for 1890 was 4,085 second-feet, the minimum 160 second-feet, and the mean 715 second-feet. Especial interest attaches to this stream from the fact that a number of expensive canals have been built to take water from it, their aggregate capacity, or possibly even that of a single one, exceeding the low-water discharge of the stream. This affords an example of the eagerness with which great irrigation enterprises have been entered upon under the evident belief that if only canals were built sufficiently large and elaborate water would be found to fill them.

Knowing the discharge of some of the larger streams of Montana, it is a matter of considerable interest to estimate the value of these rivers to agriculture, and also the increase in value that might possibly be brought about by a careful conservation of the water. As the case now stands, without any regulation of the annual discharge, the value of a river is largely governed by the amount of water which flows during the latter part of the crop season; that is to say, the acreage is limited mainly by the quantity of water available in the latter part of July and August for maturing the crops, and if this quantity can be increased the acreage under the river can be increased proportionately. Taking the average of all the computations of the daily discharge of rivers in Montana and arranging them by months, it has been found that in January 3.6 per cent of the total amount for the year was discharged; in February, 3.7; March, 3.8; April, 6.4; May, 21.2; June, 23.2; July, 13.0; August, 7.0; September, 4.7; October, 5.0; November, 4.4; and in December, 4.0 per cent. Knowing these facts, some conception can be formed of the variation in discharge from month to month.

Reducing this matter to the simplest statement, it is seen that in May and June 44.4 per cent of the water is discharged, or nearly one-half the total quantity of water for the whole year, while in July and August only 13 per cent and 7 per cent, respectively, flow in the stream. The area of the crops is governed largely by the amount which flows in the latter part of July and the early part of August, which may be taken as an average between these quantities, or 10 per cent. If, therefore, the discharge of May and June can be reduced and that of July and August increased proportionately the crop area can be enormously extended.

It so happens that the mean annual discharge of a river is very nearly equal in quantity to that which flows in the early part of August, the supply for which time governs so largely the area of crops. Assuming, for convenience, that the water duty can be maintained at 100 acres to the second-foot, the waters of the Yellowstone, the mean annual discharge of which was 2,780 second-feet, should without storage irrigate 278,000 acres, and those of the Missouri, whose mean annual discharge was 4,715 second-feet, should irrigate 471,500 acres, this amount being susceptible of enormous increase by means of storage. It is also interesting to compute the possible value of this unutilized water, and in order to do so it will be necessary to make assumptions based upon the statistics already given.

According to the statements of farmers, the average first cost of water per acre was \$4.63, and the value now placed upon this water is \$15.04 per acre. The difference between these, \$10.41, may fairly be assumed as the value of the flowing water to the farmer in excess of the cost; in other words, the water sufficient to irrigate one acre is worth \$10.41 beyond the original cost of bringing it to the land. If one cubic foot per second flowing throughout the year will irrigate 100 acres, its value, according to the above assumptions, will be \$1,041, and a river carrying an average of 100 second-feet during the time of low water represents a possible value to the state of \$104,100; but, as we have seen, the river which carries during low water 100 second-feet can by

conservation of the waters be made to carry a far greater volume in the fall, increasing the value proportionately, less, however, the cost of the storage works.

If, however, a lower water duty is taken, as, for example, that commonly given of one miner's inch to the acre, or about one-half that assumed before, the value of flowing water will be correspondingly reduced, and the value represented by a second-foot of water will be in round figures \$500. If this second-foot flows, however, throughout the year, its value, as just stated, can be correspondingly increased by storage.

Supposing that these assumptions are correct, the value of a second-foot of flowing water may be taken as being from \$500 to \$1,000, and at this rate the waters of the Yellowstone, if employed, without storage, would be worth from \$1,390,000 to \$2,780,000, and those of the Missouri from \$2,357,500 to \$4,715,000. These figures are given merely to exhibit the great value to be derived from the water now flowing to waste, which value can be realized, however, only by the expenditure of large sums in irrigating systems.

Knowing the mean annual discharge of the Missouri river, it is possible to approximate the total water supply of the state, for it has been found by measurement that, excluding the drainage basin of the Yellowstone, the catchment of the Missouri above the point where measured is almost exactly one-third the total mountain area of the state. If, therefore, the same proportionate amount of water is available from the whole mountain area that there is from the catchment of the Missouri, then the mean annual discharge of all the basins on both sides of the continental divide, excluding the Yellowstone, would be 14,145 second-feet, which with a water duty of 100 acres to the second-foot would be sufficient to irrigate over 1,400,000 acres if it could all be utilized and brought out upon arable land. Practically, however, but a small proportion of this water can be made available, and, on the other hand, the efficiency of some of the streams can be greatly increased by water storage.

At present the area of crop irrigated by large canals is comparatively small, and by far the greater part of the irrigation of the state is done by means of small ditches taken from the rivers to cover one or two ranches. Deducting the acreage covered by the few great canal systems of the state, it has been found that on an average there is an independent ditch for every 225 acres of crops. This figure gives some conception of the difficulties to be encountered in attempting any systematic division of the waters, for in cases of controversy the exact status of each of these little ditches must be ascertained in its relation to the whole water supply and to the claims of all other ditches taking water from the same source.

An estimate of the cost per mile of these small ditches, including headworks, flumes, etc., has been prepared, and for this purpose they have been roughly classified into three series, according to their width, the narrowest being those under 5 feet in width, the next those from 5 to 10 feet in width, and the third class those over 10 feet, the depth in a general way corresponding with these widths being 1 foot, 1½, and 2½ feet and over. The average cost of the smallest ditches was \$325 per mile; of the next series, \$800 per mile, and of the widest, \$2,300 per mile.

Throughout Montana, as a rule, the construction of the ditches and irrigating works has been of the most temporary character, although there are a few notable canals, well planned and built at great expense. Most of the irrigated area, however, is covered by ditches dug by the farmers without preliminary survey. Many even have been merely plowed out, the water then washing its own channel. The streams are diverted into the head of the ditches usually by temporary obstructions of brush, logs, rocks, and earth, replaced after each freshet. In other cases the bed of the canal is made so low that the water will flow in without diverting dams.

In some cases, where the fall of the ground is not sufficiently great to allow of the water being brought out of the river at all times, the so-called high-water ditches have been built, receiving water only in times of flood, the bottom of the ditch being above the low-water level of the river. In this way a large quantity of water is taken during the spring and the ground is thoroughly saturated, so that one crop of forage is assured. This irrigation is of the most crude character, but the resources of the irrigators have not been such that they could improve upon it.

Unquestionably more water from the streams would be available for use on the plants if the water were turned out into one or two large, carefully prepared canals, instead of into a great

number of small, irregular ditches. Much of the water now flowing to waste in the beds of the creeks could in a similar way be made available by bringing it out into well-made channels at points where the streams leave the canyons, and the duty of water could undoubtedly be greatly increased by such methods of economy.

The area of agricultural land under irrigation could also be extended by greater economy in the use of the present amount flowing in summer, but this possible extension is small compared to the far greater increase which would take place by saving the great volume of flood water in the spring. As previously shown, the area under irrigation is limited at present mainly by the late summer discharge, which is but a small per cent of the entire discharge of the year. The building of great systems of storage works is inevitable in future development, for few of the streams discharge sufficient water for the demand now made upon them in times of drought. Some alarm is expressed occasionally by persons apprehensive of disaster to these dams as to the safety of life and property below them, but history has shown that such structures, if properly located and constructed under responsible supervision, will outlast even the record of their own construction. Another source of criticism or apparent opposition locally to storage works comes from stockmen, who oppose intrusions upon what they have come to consider as their own domain.

While the conservation of water and the increase of the water duty are steadily making progress, the methods of applying water to the soil and all the minor details of cultivation are slowly being improved from the comparatively crude methods of the pioneer. A certain amount of system is being inaugurated, although at present the methods are as diverse as the individual ideas. According to general custom the water from the main ditches of the farmers is taken to smaller distributing ditches and then turned out upon the ground, finding its own way from place to place, or it is diverted into large furrows, from twenty to a hundred yards apart (the distance varying with the soil and the experience of the irrigator), and so laid out that the water can be conducted to various parts of the field. Between these smaller ditches or large furrows and about at right angles to them other furrows are plowed, or grooves are made by a heavy roller or other device, so that the water entering one of the ditches can be turned into a number of these little channels at once, the whole system being so laid out that water can be run to almost every foot of the field, and at the same time a considerable area can be wet by turning water into a number of little furrows at once.

The various forage crops are usually flooded; the small grains are irrigated by these systems of little furrows, while corn, potatoes, and other vegetables are wet by allowing the water to flow between the hills or beds. In applying the water to the soil it is generally the custom to use a stream flowing at the rate of about 80 to 100 miner's inches, or approximately 2 second-feet. With a less quantity of water a greater time is required in watering the crop, and the stream travels so slowly from point to point that a large part is lost on the way. On the other hand, by attempting to use a much greater amount, the land is badly washed in places or an excess of water is applied. Hay and meadow lands are irrigated from early spring until late in the fall. Wheat, rye, and barley are generally irrigated but once during the season, unless it is unusually dry. Potatoes are irrigated once or twice, and other vegetables may be watered every ten days or two weeks. Oats generally receive two irrigations.

The time required for the irrigation of a field varies with all these details, and perhaps in no one item does individual peculiarity stand out more prominently. One man turns out upon his ground as much water as he can procure and leaves it even for a day or more at a time, while another, whose experience has perhaps been different, or whose soil requires special treatment, carefully conducts the water from point to point and continually opens or closes his small earth dams.

The time of the year during which irrigation is practiced is also accountable for some diversity of method. In general, the water is used from the time the rivers begin to rise to the freezing of the water in the fall. In time of flood, however, some of the irrigators turn all the water possible upon the higher lands, in order to saturate them and produce an early crop of alfalfa. This is especially the case with those irrigators who have only the right to an excess of water, for it is essential to employ it at the time it is available, and they hope by the aid of fortunate rains

to produce an early crop. Many of the older farmers, who feel secure in their water rights, do not employ irrigation until the appearance of the crop shows it to be absolutely necessary. Others again use water throughout the year, flooding meadow lands and employing it at various times on the different crops. Thus the number of waterings can not be reduced to any definite statement.

Owing to the scarcity of water, it is customary in many localities to irrigate only a portion of a farm during any one year. For example, a farmer having 100 acres may use the water only on 50 acres and let the remainder lie fallow, and the next year use the water on the fallow land of the year before. A greater yield per acre is claimed as the result of this alternation. This method introduces some confusion in any statistical investigation, for, on the one hand, the farmer has 100 acres under irrigation, and yet, owing to the scarcity of water, he is not able to irrigate more than half of it in any one year, and perhaps in years of drought, as in 1889, can not produce a crop on more than one-third or one-fourth of the total.

Up to the present time the control of the water for the greater part of the irrigated area has been in the hands of the irrigators themselves. They have built and now own and manage the means of distributing the water, but there now remain few opportunities for the construction of small ditches. More difficult engineering feats must be attempted, requiring larger capital, and canals must be built by outside aid. The ditches built by corporations are as a rule more expensive than those dug by the farmers, since they usually cover areas more difficult of access. The first cost of water is thus greater, and the annual charge for bringing water to the land must necessarily be larger than that estimated as the present average cost. The charges of water companies range from \$1.00 to \$2.50 per year per acre, while the farmers estimate that on an average the annual cost to them is only 95 cents per acre.

This charge of the water company is usually a burden to the irrigator, and he is inclined to look upon canal companies in general as extortioners and the rates asked as exorbitant, although as a matter of fact these may not yield a fair interest on the investment. It is doubtful, therefore, whether the irrigating enterprises built by outside capital have so far been profitable, and the owner of one of the largest systems states that the ownership of a canal separate from the land has proved disastrous both to the investor and to the farmer. If all the water that each canal was designed to carry could be obtained and be sold at the prices now asked, there is no question that it would be more profitable to carry water than to use it on the land, but unfortunately there are innumerable drawbacks from failure of water supply and lack of success on the part of the irrigator.

In at least two instances, after the completion of a large canal by a corporation at enormous expense, the irrigators living under the canal have found the annual charges so great and the water furnished them so much less than they expected that they have concluded that a cheaper and more efficient supply could be secured by other means. Accordingly they have formed associations and built smaller canals, paralleling the first system but at a lower grade, the ownership and control being wholly in the hands of the irrigators. In this way duplications of systems with their attendant evils have arisen.

Many of the larger irrigation schemes have not been organized upon a good financial basis, but have been of a decidedly speculative character, being stocked for a large sum with only a small amount actually paid in or expended on work. A claim is usually filed for all the water in the river, the amount being often in excess of the total discharge of the stream, the object apparently being to sell the franchises of the company at an early stage to other parties or to dispose of the stock.

The present condition of irrigation development and of the control of the waters of the state is by no means satisfactory to the farmers, and most of them look forward to sweeping improvements in methods of irrigation and in legislation. As the matter now stands, the additional area annually brought under irrigation is rapidly increasing, in spite of the fact that along nearly all the smaller streams the present area under ditch is in excess of the amount that can be successfully watered in such years as 1889 and 1890. On the one hand the older settlers, those who legally should have prior right to the water to the extent of their original appropriation, complain that, in spite of their legal rights, the later comers are taking water at points higher up

the stream, where it can be diverted more easily, and that by this rapid encroachment they themselves are being brought almost to the verge of famine. They can no longer obtain water in times of scarcity, and consequently their lands have little value, and for every new ranch higher up the stream one or more old ranches must suffer.

On the other hand, those who have come into the country at a later date and who have pushed higher up the rivers, who have made for themselves homes and have invested all their capital and labor in irrigating their lands, assert that the owners of prior rights have no consideration for others; that these old settlers will, if they can, take all the water in the stream, regardless of others, and often use it carelessly or even waste it, while others are in want; or again that during the drought of summer it is useless to let the water run in the bed of the stream beyond their own ditches, from the fact that before the slender stream can reach the heads of the ditches farther down the valley the entire amount either sinks or is evaporated, and therefore, since the owners of prior rights can not be benefited, those who can use the water should be allowed to do so.

These complaints form the two extremes, and between them are innumerable cases with every shade of right and wrong involved. The consequence is that during every period of drought there are conflicts arising over the proper distribution of the water, and the irrigators state that at every county seat they are supporting a number of lawyers out of their slender earnings. It certainly seems a hardship that the farmer should be compelled to be perpetually fighting for his land, for that is what it really amounts to. Without water his land is valueless, and while his possession of the water is in constant jeopardy from every source his land can have little permanent value.

Resort to the ordinary courts of law often yields but little satisfaction, for the delays appear interminable, and even when a decision is reached, yet not being based upon actual and continuous measurements of the water available and on other engineering details, it is often of little practical value, from the fact that in many instances more water is awarded than actually exists or new circumstances may have arisen entirely obviating the points passed upon. The great necessity is felt for immediate definite judgments based upon an accurate knowledge of the amount of water available and the demands upon it. Great interest is felt in the practical operation of the Wyoming laws in this matter, as they appear to combine the requisites of accuracy and dispatch.

The older settlers demand protection of priority of rights; the later comers a fairer distribution of water and a control which shall insure the cultivation of the largest possible area in distinction from one which secures protection only for a given small area. For example, if the man owning prior rights wastes the water, either through ignorance or design, if he lays out his ground with the ditches too far apart, or in some other detail fails to employ the water in the best manner, then the later comers claim that he should not be allowed to deprive them of their means of living.

The universal cry of the irrigator is for more water in the latter part of the crop season, but the question how or by whom this is to be provided is still unsolved. The farmers as a rule are poor, and can do little toward constructing storage reservoirs beyond contributing their own labor and that of their teams. They are, however, deeply interested in all projects, and are anxious to give and receive information. Innumerable localities suitable for reservoirs are mentioned by them, and many of these undoubtedly are well adapted for the purpose of holding water. They are being examined as rapidly as possible by the topographers of the United States Geological Survey, and where well located and of sufficient size they are being reserved to await future congressional action.

A large number of sites in Montana have thus been surveyed, their locations designated, and careful maps prepared of the whole catchment area, the irrigable land, and in fact of all the details of relative elevation, the work being carried on in a uniform and systematic manner. In addition to this work, a detailed engineering survey of a large and comprehensive irrigation system has been made, exhibiting the feasibility of constructing such a system in advance of the haphazard growth of irrigation, and thus insuring the rapid and economical development of agriculture. The area surveyed embraced the irrigable lands along the Sun river, the work being under the charge of Mr. H. M. Wilson, whose detailed report gives the facts concerning the water supply, the cost of the system of reservoirs and canals, and the area of land to be benefited,

and shows clearly how, by the expenditure of sufficient capital, enormous areas can be brought under cultivation at a small cost per acre and a permanent supply of water assured.

BEAVERHEAD COUNTY is in southwestern Montana, being partially inclosed by a loop in the continental divide which bounds the county on the north, west, and south. The altitude is great, the lowest part of the county being nearly 5,000 feet above sea level, while the mountain summits rise to heights of from 10,000 to 11,000 feet. The principal crop, indeed the only important one, is hay, which is grown along the streams wherever water can be brought upon the land. Irrigation is essential, except in the case of a few small areas wet by the annual overflow of the rivers. The early settlers on entering the valleys of this county found good hay produced in abundance by this natural irrigation along the Beaverhead river and tributary streams. Annually until 1889 this crop has been good, but in that year of unusual drought the natural hay was almost an entire failure.

The Bighole river rises in the western part of the county and flows northerly, then turns to the east and south, forming in the lower part of its course the northeastern boundary of the county. Along this river and its various tributaries are many stock ranches where hay is raised, but in general the altitude is too great for other crops. In irrigating the grass lands great quantities of water are used. On many ranches it is customary to turn the water on the fields and let it run for two days or more at one place, and then change to another part of the land, the water finding its way to various portions of the field, according to the slope of the ground. By watering the bench land at frequent intervals for a period of about three years good hay land is made without seeding or plowing.

Along the Beaverhead river is a succession of valleys, with broad, fertile lands, but with an exceedingly scanty water supply. The uppermost and most southern of these valleys, known as Centennial valley, lies in Madison county. It is about 40 miles long by 2 to 3 miles wide. From this valley Redrock creek flows through a short canyon and enters Redrock valley, about 25 miles long and $2\frac{1}{2}$ miles wide. North of this comes in turn the Beaverhead valley.

On April 10, 1890, when Redrock creek should have been carrying a considerable volume of water, it was almost dry at a point 6 miles above Redrock, while below a number of springs added a small amount to the stream. At the same time the Horse Prairie and Grasshopper creeks were flowing a small volume, sufficient to add appreciably to the discharge of the Beaverhead. The upper valleys of these and other tributaries of the Beaverhead are in general broad, situated at comparatively low elevations, and containing an amount of arable land so great that there is some question whether the whole area can be irrigated even by storing the water, more especially as the water duty in these valleys is very low on account of the open character of the soil.

The principal towns of the county are along the Beaverhead river, which is formed by the junction of Redrock and Horse Prairie creeks. Along these valleys are many ranches, and although but a small proportion of the land is under crop, yet already there is often a general loss from lack of water. There is, of course, an ample supply for the present acreage during the spring and early summer, at the time when the crops need little or no irrigation, but later in the season, when the long-continued dry weather prevails and the crops are withering, the streams diminish so that there is not sufficient water for all claimants. At such times the absence of efficient regulation creates endless litigation and consequent poverty and distress among the farmers, many of whom mortgage their farms in order to raise money to defend their water rights, without which their land is valueless.

In the higher valleys alfalfa is reported to be unsuccessful, but timothy, red top, and other grasses, as well as white clover, oats, barley, wheat, and potatoes, are profitably cultivated, although the climate is too cold for fruits or corn. In those localities near the headwaters of the stream, where water is comparatively plentiful, the farmers often suffer from cold weather and a late spring, while in the lower valleys, where the climate is milder, the water supply of the later summer months is very small. Water is used throughout the county in a very plentiful manner, and it is generally believed that on an average one miner's inch per acre is required. Some ranchmen claim that still better crops could be produced with more water, while others assert

that in most cases better results could be obtained with less water. It is reported that local courts have provisionally allowed three-fourths of a miner's inch to the acre in the adjustment of water claims.

Dillon is the chief town, and is supported largely by stock raising and agricultural industries, the country in the vicinity being an excellent stock range. There are three large ditches taking water from the Beaverhead river a short distance above this town, viz.: the Beaverhead ditch, Union ditch, and Canyon ditch. In 1889 and 1890 the river was at times nearly dry at certain points below Dillon, water, however, appearing in the channel at places still lower down, there being a number of small springs along the bed of the stream.

Most of the irrigating ditches are small in size, having been built by individual ranchmen wherever the contour of the surface was such that water could easily be brought out upon arable land. As an example of the larger ditches may be given the Canyon ditch, which carries water for a distance of about eleven miles. The average width of this ditch is stated to be 20 feet, its depth 15 inches, and its cost \$11,000. The ditch is owned by a corporation composed mainly of irrigators, the water being divided among the shareholders pro rata. Each share entitles the holder to about twenty miner's inches, excepting in unusually dry seasons, when probably only about half of that amount is received. With this amount of water it is generally understood that about 15 acres can be irrigated. Another ditch of notable size is one built by private parties, taking water from Birch creek. This is 9 miles long, 6 feet wide, and about 2 feet deep, and its cost was \$3,000. The water is divided among the owners according to an agreement among themselves, the quantity depending largely upon the amount in the stream. It is reported that twenty inches of water produced crops successfully on twenty-five acres of ground.

CASCADE is a comparatively small county lying along the Missouri river, a little to the northeast of the center of the state, and including the lower part of the valley of the Sun river. These rivers flow through broad, high plains, or "bench lands", into which they have cut comparatively narrow valleys, which, however, widen in places to a breadth of several miles. Southeast of the Missouri river the county extends to the peaks of the Big Belt and Little Belt mountains, and thus contains many streams convenient for irrigating purposes. The greater part of the irrigation in the county is accomplished from these small streams, the use of the waters of the Missouri river not being always practicable or successful. A small amount of land is cultivated, however, by water from this great river, and this area could be increased enormously by the construction of a large, well-planned irrigating canal. The lower bottom lands along the Missouri are overflowed usually in June, and thus some hay is raised by natural irrigation.

On the bottom lands throughout this county there is usually sufficient moisture to cause grain and vegetables to sprout and attain considerable size, but the latter part of July is generally hot and dry, and all crops require the artificial application of water at least once. Along the foot of the Belt mountains the country is broken, but the small, narrow bottoms are cultivated by taking the water from the springs or small streams. The principal agricultural areas of the county, however, are in the Sun River valley and Chestnut valley, the latter a broad opening along the southeastern side of the Missouri extending down to Smith river.

There are a number of large canals in the Sun River valley, of which the two following may be mentioned. The Sun river ditch takes water from the north side of the Sun river, two miles above the town of the same name. The ditch is 14 miles long by about 8 feet wide, and it cost, approximately, \$14,000. It is owned by an association of ranchmen, who claim to have a supply ample for all their needs. The annual cost of the water is about 25 cents per acre. The Crown Butte canal takes water from the south side of the Sun river and carries it easterly for about 22 miles. The average width is 19 feet, depth $3\frac{1}{2}$ feet, and discharge about 200 second-feet, and its cost was about \$60,000. It was only finished in 1891, and consequently it has not been used to any large extent. It is proposed to construct a system of reservoirs sufficient to supply water during times of scarcity. In the Chestnut valley a canal has been built, taking water out on the east side of the Missouri, but it is reported that on account of engineering defects this canal is not entirely successful in delivering a sufficient supply of water, although the amount in the river is many times what is required.

CHOLEAU COUNTY embraces an immense area of elevated plains lying in the northern part of Montana, adjoining the Northwest Territory of the British possessions. It extends from the continental divide eastward over the high plains along and across the Missouri river to Dawson county on the east. Numerous streams issue from the high mountains forming the western border of the county, and flow in deep channels easterly down the slope of the plains to join the Missouri. The principal of these rivers are the Marias, Teton, and Sun, the last-named forming for a portion of its course the southern boundary of the county.

The Missouri river flows into the county from Cascade county on the south, and then pursues a general easterly course. This river, as well as its tributaries, has cut deep into the plain, so that the streams now flow at a depth of several hundred feet below the surface of the country, rendering it exceedingly difficult, if not impossible, to take the water from the main streams out upon the bordering bench lands. The Milk river flows easterly through the northern part of the county, receiving waters from the hills and high plains or bench lands along the border between the United States and the British possessions, and finally emptying into the Missouri river in Dawson county. Between the Milk river and the Missouri are short ranges of mountains rising 2,000 feet or more above the plains. The streams flowing in all directions from these mountains have already been used to a small extent for irrigation.

The general altitude of the county is from 3,000 to 4,000 feet, the plains rising rapidly on approaching the mountains and finally reaching an elevation of nearly 5,000 feet. Cattle range over these great tracts of gently rolling land, finding an abundance of summer feed, for in most years there is sufficient rainfall to insure good forage, and occasionally even to mature a crop of cereals. Without irrigation, however, no crop is safe in this county, and attempts at dry farming are sure to result in disaster.

The county is very thinly inhabited, the principal towns being along the Missouri river from Great Falls to Fort Benton, or on the Sun and Teton rivers. The northern part of the county has until lately been held as an Indian reservation, and this immense body of agricultural land is being rapidly taken up. In the Milk River valley especially the fertile lands now thrown open offer inducements to settlers. This valley is reported to be three miles or more in width, and to possess large areas of rich soil. The water supply, however, is probably not sufficient under present circumstances for the irrigation of more than a small percentage of the land, since the drainage basin of the river embraces but a relatively small area of high mountains and furnishes little water after the early spring freshets, the river becoming almost insignificant in size. At times, however, it is a great torrent, overflowing the banks, or it appears as an inland lake many miles in width.

In the Milk River valley the only irrigating canal of importance is that known as the Fort Belknap irrigating ditch. This is taken out on the north side of the river eight miles above the town of Chinook. It is about 9 miles long, 24 feet wide, and 4 feet deep, and its cost was \$22,000. Water from the canal was used to a small extent in 1889, but the works were not completed until the fall of 1890.

On the headwaters of the Marias river a little irrigation is being practiced, and along the Teton river, to the south of this, nearly every ranch has an irrigating ditch, all the water being claimed. A large irrigating system has been projected and a canal partly constructed to take water from this river, and by the use of various storage basins, notably Benton lake, it is proposed to cover almost incredible areas of rich table-lands. Along the Sun river, which separates this county from Lewis and Clarke county, and then flows through Cascade county, are several large canals which furnish water to lands lying in these counties, but the unregulated flow of the river is not sufficient to fill all these canals during the latter part of the summer, and storage systems are projected.

South of the Missouri river are a number of streams which flow from the Highwood and Little Belt mountains to the south. Along all these streams irrigation has been developed and as much land brought under irrigation as can be supplied in favorable years. In the drought of 1889 and 1890, when the streams were low, large areas of crops were destroyed, and the farmers report that the value of the crops lost would have paid for storage systems on many of these

streams. Along the Missouri, at various points where the land is too high for irrigation by ditches, it has been proposed to lift water by means of pumps driven by windmills or other means.

CUSTER COUNTY is in the southeastern corner of Montana, adjacent to the Dakotas and Wyoming. On the northwest it extends across the Yellowstone river to the divide between the drainage of that stream and of the Missouri, thus including immense tracts of nearly level plains. The general altitude of the agricultural lands is from 2,200 to 4,000 feet, and the temperature is highly favorable for maturing the cereals. Stock raising is the principal industry, although the large extent of arable lands and the generally favorable character of the water supply promise a great development of agriculture in the future.

The county as a whole lies in the Great Plains region, the nearest large mountains being the Bighorn range to the southwest in Wyoming, and next to these in importance the Black Hills, which lie to the southeast, mainly in South Dakota. Streams from these mountains enter the county on the southern border, the principal of these being the Tongue, Powder, and Little Missouri rivers. The first-named, rising as it does in the high mountains, and flowing but a short distance before entering the county, furnishes the best perennial supply of water. A number of canals or ditches have been built, the most notable being the canal above Miles City. The bottom lands along the stream are in general narrow, and so irregular that long ditches are almost impracticable.

The streams of the county as a rule have high banks or are bounded by steep bluffs, rendering canal construction difficult and expensive, as the earth washes out readily and does not stand on exposure to water. For this reason irrigation has not been largely developed, and the ditches which have been built take water usually from small side streams, where the character of the topography or soil renders construction comparatively cheap.

In the valley of the Rosebud, west of the Tongue river, the summer water supply is not sufficient to fill the ditches already constructed, since this stream does not rise in the high mountains. In the valleys east of the Powder river also the water supply is irregular, and is in general insufficient during the latter part of the crop season, for on account of the distance from the mountains much of the water disappears before entering the county from the south. Along the Little Missouri, further to the east, the supply is even more scanty, this river rising in the Black Hills, the altitude of which is not sufficient to cause the water to flow perennially. This valley is thinly settled and there may be said to be no irrigation carried on at present, the high banks of the stream and the irregularity of the water supply rendering canal construction expensive and a matter to be entered upon with great care. There are, however, excellent storage facilities, and the large extent of arable land and the possibilities of holding flood water will undoubtedly tempt capitalists to construct efficient irrigating systems.

On both sides of the Yellowstone river in the northern part of the county and along the tributaries entering from the north and south are extensive tracts of fertile land adapted for agriculture in every respect save that of moisture. This land is at present used principally for grazing, since crops can not with any certainty be raised upon it without irrigation. There is an ample supply of water in the Yellowstone river, and at many points the fall of the river is sufficiently great to allow canals to be taken out, covering long stretches of bottom land. The great expense involved has up to the present time deterred the inhabitants and owners of arable land, but it is only a question of time before canals will be built. Irrigation is carried on in a very small way by utilizing the little streams entering the valleys from the sides and by damming the ravines and holding rain water for short periods. In the valley of the Rosebud and further down along the Yellowstone, where ditches are too costly for private enterprise, steam pumps have been tried and are reported to be successful in raising water sufficient for small areas. Work of this character, however, has not been carried on for a length of time sufficient to demonstrate the financial success of agriculture under these conditions.

By the construction of canals from the Yellowstone and Tongue rivers a great part of the lowlands along these streams can be reclaimed, but it will not be possible to cover in this way all the fertile lands, since the great part of these lie at too high an elevation. Some of this latter land can be irrigated by means of storage systems in the higher rolling or hilly country, and in

few instances small storage reservoirs have already been built. Springs and to a very small extent artesian wells are used to irrigate vegetable gardens and trees in the lower lands. From one to three crops of alfalfa are raised, but the supply of this as well as of other kinds of hay, grain, and vegetables is not sufficient to meet local demands, so that it is reported that these products are even brought by rail into this agricultural county.

The Miles City ditch, now being constructed, is the largest irrigation enterprise in this county. It is to take water from the Tongue river and carry it down on the east side of the stream to within about 2 miles of the Yellowstone, where it turns and follows the general course of that stream. Twenty miles have been built, and the total length of the ditch when completed will be 28 miles. The width is 10 feet, the carrying capacity about 60 second-feet, and the cost reported to be upward of \$100,000. The water in the Tongue river is to be raised by a permanent dam 320 feet in length to a height 7 feet above low water.

DAWSON COUNTY is in the northeastern corner of Montana, adjoining the Northwest Territory of the Dominion of Canada on the north and the state of North Dakota on the east. The two counties of Custer and Dawson occupy the entire eastern end of the state of Montana, and are similar in many respects, both lying within the Great Plains region, and their surface being in a general way level. The Missouri river, which crosses the county from west to east, and the Yellowstone, which flows through the southeastern corner, as well as the tributaries of both of these streams, have carved channels below the general level of the country, so that the surface of the plain, although at a distance apparently level or but slightly undulating, is in reality often rough and broken.

The soil is very fertile, but there is not sufficient rainfall to support grains and vegetables in all seasons. Occasionally small crops of corn, millet, potatoes, and vegetables are obtained without irrigation, especially in the narrow bottom lands along the perennial streams, but these crops can not be depended upon. The greater part of the arable land lies so high that river water can not be taken out upon it, but there are narrow strips of bottom land, especially along the Yellowstone, as in Custer county, to which canals can be built. This river and the Missouri furnish an ample supply of water at all times, the discharge of each probably not falling below 5,000 second-feet. The small streams, however, generally become dry during the summer.

What little irrigation is done in this county is carried on by water from springs, since it has been found too expensive, with the limited means of the present inhabitants, to take water from the large perennial rivers. A larger acreage could undoubtedly be irrigated by individuals by the construction of small storage reservoirs, but comprehensive irrigation systems can only be entered upon by organizations having ample capital. The principal industry is grazing, the greater part of the grain and other farm produce needed by the inhabitants being brought in from other localities. The settlements are mainly in the eastern end of the county, along the Yellowstone, where the altitude is 2,000 feet or upward.

DEERLODGE COUNTY is in western Montana, beyond the continental divide, and thus includes a portion of the headwaters of tributaries of Clarke fork of the Columbia. Mining is the principal industry, although agriculture is of rapidly growing importance, as the mining towns furnish good markets for all products. Nothing, however, can be raised without irrigation, and, as in other places where two classes of industry both depend for their success upon the use of water, the supply of which is limited, there is often friction between the irrigator and the miner or mill-owner. The farmers assert that the powerful corporations needing water for their mills or mines take it in spite of prior rights, or load the streams with debris, filling the ditches, or ruining the land, and that it is impossible for poor men to secure redress.

The principal agricultural land is in the Deerlodge valley, lying at an altitude of from 4,300 to 5,000 feet, this valley being among the richest and best developed valleys in Montana. It is in all about 40 miles long and from 1 mile to 5 miles wide, having a rich and highly productive soil, but one which contains, especially in the lower lands, considerable alkali, requiring a very careful use of the water to prevent the formation of an alkaline crust upon the surface.

Deerlodge creek, which rises in Silverbow county, runs northerly through this valley and its waters are diverted, especially near the head, by many irrigating ditches. The larger part of the irrigation is done, however, by water from creeks which flow into the Deerlodge valley both from the east and the west. Along each of these streams many ditches are taken out, each ditch supplying water for one or two ranches. In nearly every instance the irrigators state that there is often scarcity of water. They also state that at the head of many of the creeks are small lakes which probably can be increased in area and capacity, and there are also basins needing only the construction of a short dam to be converted into reservoirs. Individuals have already demonstrated the success of storage for irrigation, and there is now a demand for some general system.

There is a popular belief that with the denudation of vast areas of forest to furnish timber and fuel for the mines, mills, and smelters, a gradual decrease in the summer flow of the streams has taken place, owing to the fact that the snow melts more rapidly when not protected by forests. Efforts to prevent timber depredations seem to be hopeless, and few, if any, of the farmers are sanguine of success in that direction. The outlook for the irrigators in the more thickly settled valleys, where population is increasing and the water supply is apparently diminishing, is not encouraging. In the Deerlodge valley undoubtedly larger areas could be brought under cultivation with the water supply at present available by the construction of two canals, one on each side of the river, bringing water to the lands higher along the sides, as well as to the areas now covered by small ditches.

Besides the Deerlodge valley there are several others of importance in agriculture or stock raising. To the west is Flint Creek valley, in which, besides mining, stock raising is an important industry, the most notable crops being those raised for forage. The water is said to be all appropriated, none being available for late settlers, unless possibly by storage. Toward the northern part of the county, on both sides of Nevada creek and the Big Blackfoot, are thousands of acres of good land without water. The water supply of the Big Blackfoot is large, but expensive canals will be required in order to use it to the best advantage. Along these streams, and also along the Little Blackfoot, which joins Deerlodge creek, are extensive irrigated areas, farming being everywhere successful on account of the markets afforded by mining settlements. The Little Blackfoot valley is over twenty miles long and a mile or more in width, containing extensive areas of fine land, the soil of which is a rich sandy loam, hay, however, being at present the principal crop. The Little Blackfoot river in the latter part of April, 1890, when in flood, was carrying about 150 second-feet.

FERGUS COUNTY lies nearly in the center of Montana, being between the Missouri and Yellowstone rivers, although not bordering upon either of them. The county extends from the plains region on the east, and includes on the west a part of the first ranges of the Rocky mountains. Its location, therefore, is favorable to the development of agriculture by irrigation, since it contains extensive tracts of farming land immediately adjacent to elevated catchment areas.

On the west are the Little Belt mountains, and near the center of the county is the Big Snowy range, whose summits rise to altitudes of over 8,000 feet. To the north of these are the Little Snowy and Judith mountains, rising to heights of 5,000 or 6,000 feet. These ranges divide the county into two topographic basins, that of the Judith river on the northwest, and that of the tributaries of the Musselshell on the south and east. The melting snow from the lofty ranges gives rise to many small streams, which finally unite into one or the other of these two drainage systems. The county is comparatively well watered, containing as it does a large number of creeks, each of which can be easily and cheaply used for irrigation. There are thus many small ditches owned by individuals, and few, if any, corporations or associations of irrigators.

The drainage basin of the Judith river is partially surrounded by high mountains, upon the slopes of which is excellent summer grazing. Ranchmen have taken up a great part of the land along the streams, and have constructed small irrigating ditches for the purpose of raising winter feed. The majority of the farmers had little means, and the ditches were built in the cheapest possible manner as temporary expedients. Greater economy of water would be attained

by the construction of one well-made canal to take the place of a number of these small ditches. Already on many of the tributaries of the Judith river more ditches have been constructed than can be supplied with water during a part of the crop season, and thus the irrigators on the lower parts of these streams have been unable to obtain sufficient water to save their crops. The discharge of the Judith river itself during the summer is very small, from the fact that many of the mountain streams are evaporated from the sandy channels, or are entirely used in irrigation.

Land is still being brought under cultivation by new settlers, although the water rights of the older inhabitants remain unprotected, and apparently a condition of affairs will ensue in which the irrigator at the headwaters will be the only one who can be sure of his crops. The snow melts rapidly on the lower summits and flows away in May and June, the streams becoming very small in July and August, so that it will be necessary to store the water, which is not needed in the spring, for a few weeks only.

During years of unusual rainfall crops are raised in the Judith basin without irrigation. For example, in 1887 and 1888 large crops of cereals were raised in a few instances in this manner. In 1889, however, nearly all the crops on nonirrigated land were lost, and owing to the scarcity of water in the streams the yield on lands under ditch was in many cases small. In 1890 also the snows were light and the results were disappointing. Many of the ranches were taken up originally after years of abundant rainfall, when the old grass was thick and heavy, and there was every indication that crops could be raised without the artificial application of water. Unfortunately it has been found that this can not be done in most seasons.

Along the streams which flow east into the Musselshell the conditions are in most respects similar to those prevailing in the Judith basin. Ranches are scattered along the streams, and small ditches have been taken out by the respective owners. There is apparently plenty of water near the foot of the mountains, and at those points grain occasionally matures without irrigation. Further down the stream, however, there is often not sufficient water for one-half of the ditches constructed.

GALLATIN COUNTY is in southern Montana, and covers the drainage basin of the Gallatin river from its headwaters in the Yellowstone National Park. The county is long and narrow, stretching from the continental divide northerly to the Missouri river, along which it extends for nearly 10 miles. It thus includes in its northern end the Gallatin valley, which at the present time is probably the finest piece of agricultural land in the state. This valley, the altitude of which ranges from 4,000 to 5,000 feet, is bounded on the east by the Gallatin and Bridger ranges, from which flow numerous streams to form the East Gallatin river. The main stream, or West Gallatin, traverses the valley, as also does the Madison, further to the west. These, uniting with the Jefferson, which comes in from the southwest, form the Missouri, the junction being known as the Three Forks.

Irrigating ditches and canals are taken from all these streams and also from their tributaries, the water supply being excellent. The smaller streams offer especial facilities for the construction of ditches by individual farmers, so that agriculture has progressed rapidly and successfully along their valleys. In the Gallatin valley itself the large extent of comparatively level land and the abundant perennial supply of water in the rivers offer inducements for the construction of large irrigating systems. In spite, however, of the magnificent resources of the county, development has not been in all instances satisfactory, from the fact that it has not been governed by efficient and systematic regulations. Individual rights are not sufficiently protected, and there is general complaint of injustice and of a lack of protection of the farmers' rights. The first settlers claim that they are being deprived of water by persons who have no legal right to it, but who, by their location near the sources of supply, are able to readily secure the flow of the stream, while, on the other hand, the owners of secondary rights, who are generally in the majority, accuse the old settlers of taking more than a proper share of the water and employing it in a wasteful manner.

Among the foothills, in seasons when the ground is kept moist by snow, excellent crops of winter wheat are raised without irrigation, but no crops planted in the spring are successful in this way, except in the case of some of the old ranches on the lowest grounds along the

river, where the soil is kept moist by seepage. The same land has been cultivated year after year without apparent diminution of fertility, although some farmers find that the best results are obtained by letting the field lie fallow occasionally, as this kills many of the weeds and increases the subsequent crop.

Along the streams which flow into the East Gallatin river are no large canals or corporations selling water, and the ditches are mainly controlled by individuals. In many cases the whole of the water is claimed, and in the drought of 1889 and 1890 large areas of crops were lost. The necessity of reservoiring some of the surplus water was felt, and several projects were organized for the purpose of building storage works. The water supply from the West Gallatin, however, was generally good, and the necessity of water storage was not so apparent.

The principal canal of the valley is that taking water from the West Gallatin at a point on the east side about 2 miles below Spanish creek and carrying it northeasterly to Bozeman. The length of this canal is about 22 miles, its width 20 feet, and its ordinary carrying capacity from 75 to 100 second-feet and upward. The water is rented at the rate of \$2.00 per miner's inch from June 10 to September 1, and it is estimated on the part of the company that 1 miner's inch will furnish water for 2 acres of small grain. A second canal, to cover some of the lands under this canal, has lately been built by farmers who thought they could secure a cheaper and more efficient supply from a source owned and controlled by themselves. This latter canal is about 12 miles long by 18 feet wide, and was begun in October, 1890, with the intention of using water in the succeeding year. Another large ditch from the West Gallatin is of interest from the fact that it shows how transfers are occasionally made in water rights. This ditch is 3 miles long and about 12 feet wide, and it carries water from the West Gallatin into Middle creek, in order to supply the owners of small ditches who have deeded their rights to the owners of this large ditch. In this way these owners have been able to secure the water of Middle creek for use upon lands higher up on the right bank of the creek and so situated that water from the West Gallatin could not readily be brought to them.

Along the Madison are many ditches, covering mainly the lower lands. On the very lowest ground along the stream a little hay is cut on land not irrigated. Also on Willow creek and on the Jefferson bottoms are many ditches, but there is no comprehensive system of irrigation, and in the Willow creek valley there is reported to be need of more water.

In the extreme western end of the county are several canals taking water from the Jefferson river. Of these the Lower and Upper Jefferson ditches may be mentioned, aggregating in all over 30 miles of main, lateral, and distributing ditches. The Upper Jefferson ditch is about 4 miles long; the Lower, about 6 miles; width, 10 to 12 feet; depth, 2 to 3 feet, and estimated cost of entire system, including right of way, about \$20,000. The water is taken from the river without a dam, the level of the head of the ditches being below that of the river. The water is divided among the partners owning the ditch, and the surplus, if any, is offered for sale.

Water is used from the latter part of April or the early part of May until October. The duty of the water is reported to be very low, one reason being that the ground watered has mainly been newly broken, and more water is required than on land irrigated for several years. It is found that after the water has been used a few years the subsoil becomes more compact and a smaller quantity of water will cover the same area of ground. At the same time the ditches become silted and do not lose so much water by seepage. As it is at present the ditch probably delivers only about two-thirds of the quantity taken in at the head, but after allowing for this loss the irrigated ground during the season is probably covered to an aggregate depth of 24 inches, giving a water duty of 2 acre-feet per acre.

Between the Gallatin and Madison rivers is an extensive bench land of great fertility, which has afforded for years a most tempting opportunity for irrigation enterprise. The general elevation, however, is great, and the edges of the bench are deeply eroded, so that canal construction must be exceedingly expensive. It is probable, however, that by the employment of sufficient capital the engineering difficulties can be surmounted and the project made financially successful. In general throughout the whole Gallatin valley the greater part of the bench land, which is considered to be equal if not superior to the lower grounds, has not been

touched on account of the expense of bringing water upon it. One of the difficulties in the way of the construction of a large canal by the co-operation of irrigators is that every alternate section is owned by the railroad company.

JEFFERSON COUNTY lies northwest of Gallatin county on the west side of the Missouri river, occupying a comparatively small area between it and the continental divide. On the south the county is bounded by the Jefferson river, one of the three great tributaries of the Missouri. The principal agricultural land is along the Jefferson and Missouri rivers and in the valleys of the small tributaries which flow into these from the north and west. These lands are from 4,000 to 5,000 feet in altitude, and especially along the large rivers have a climate favorable to the production of vegetables and fruits. Nothing is grown without irrigation, but the main dependence for water is not upon the large rivers but upon the small mountain streams that flow from the high peaks of the divide. In a few instances, however, water has been taken from the Jefferson and Missouri, but the ditches are small and cover only the lowest land, much of which is wet by the annual overflow. It is probable that a large canal system could be built, taking water from the Jefferson and carrying it to some of the higher bench lands.

Owing to the prevailing drought and the scarcity of feed on the ranges, the stock industry has rapidly decreased in value, the cattle having been driven to other parts of the state. Agriculture, however, wherever water is to be had, is prosperous, largely on account of the proximity of Helena, Butte, and other mining towns. Water storage has been attempted in a few instances, but a serious obstacle has been encountered in dividing the stored water and distinguishing it from that which would flow naturally in the creek, the latter being claimed by other owners. There do not appear to be any efficient regulations by which water stored by one person and returned to the creek can be recovered and used for his benefit at some point below if it must pass by the headworks of the ditches of other irrigators.

LEWIS AND CLARKE COUNTY is north of Jefferson county, and lies east of the continental divide, occupying a comparatively narrow strip of country extending from the summits easterly toward, and on the south to, the Missouri river. It thus includes, in spite of its small size, all kinds of topography, from the mountains along the western edge of the county down through the foothill region to the wide valleys and plains on the east.

On the southeastern edge of the county the Missouri river flows in a general northerly direction parallel to the continental divide and from 10 to 30 miles to the east of it. At about the center of the county, however, the stream turns to the northeast, flowing through Cascade county, while the continental divide turns off toward the northwest nearly at right angles to the river, thus rapidly increasing the distance between the mountains and the stream, allowing space for the high plains to sweep around toward the south, and increasing the distance to be traversed by the tributaries of the Missouri. For example, beginning at the extreme north, in Choteau county, the Marias river is 150 or more miles in length and traverses a great width of the high plains. The Teton, south of this, is shorter and to the south, in turn, the Sun river, which forms a portion of the northern boundary of the county, is still shorter and traverses a less width of plain, but its length is far greater than that of the Dearborn, still further to the south, and the last river of the series. South of this are many important streams, but their course is so brief that they are known as creeks.

This comparatively narrow county, mainly a foothill region, is favorably situated for the development of irrigation. Along the western border are mountains, furnishing water for numerous streams which, flowing toward the east, are soon lost in the Missouri. Each of these streams as it issues from its canyon is used for irrigation, the water being easily taken out upon the narrow bottom lands by means of small private ditches, the low-water supply in general being used to such an extent that there is little, if any, water left in times of scarcity for the wider valleys to the east, nearer the Missouri. Along the Sun river several canals have been built, taking water to lands in this county and also to those in Cascade and Choteau counties.

Along the Dearborn river also are a number of ditches and one large canal system, probably the most extensive in the state. The waters of the north fork of the river are diverted before

they leave the canyon by means of a dam made of rock-filled crib work bedded on the solid rock. The canal taken out at this point carries water a distance of $4\frac{1}{2}$ miles to Flat creek, down the channel of which it continues for 20 miles, covering, it is estimated, in this course over 20,000 acres of land, laterals being taken directly from the creek, the topography of the country being peculiarly favorable. Besides these laterals, other canals are taken from Flat creek, and are to be extended to cover the vast areas of arable lands lying in the direction of Great Falls. Suitable storage sites are to be utilized in order to insure permanence of supply. The annual charge for water is reported to be \$1.00 per acre.

Besides the irrigation from these rivers and the creeks further south, some land is watered by springs which issue among the foothills or in the lower valleys. There is an ample supply of water near the mountains, as is usually the case, for here the arable land is limited in extent and the available water is at a maximum. Irrigation, however, is making such rapid development that it seems probable that before long a scarcity must ensue, even in the most favored spots. As the ranges are being fenced in, the stockmen are being compelled to raise more and more feed for their cattle, thus greatly increasing the area of lands cropped.

During the drought of 1889 and 1890 most of the irrigators suffered for lack of water, as the area of land under cultivation in many of the valleys was in excess of the available water. Under this condition of affairs, however, it has in many cases been found practicable to raise crops by securing a thorough saturation of the soil late in the fall or in the early spring, at times when the demand for water is less than in the crop season.

The ranchmen living along the foothills south of the Sun river realize that the only way in which the small level areas in this broken and hilly country can be reclaimed is by storing the water of the small streams or "dry creeks", as they are usually called, since they do not carry any water in summer. Several instances are reported where small storage reservoirs have been constructed and sufficient water thus saved to irrigate several ranches. This storage water was of the greatest advantage, for in the spring of 1890 the soil under the upper frozen layer of an inch or so in thickness was reported to be as dry as powder, owing to the unusual drought of the preceding year.

Besides the large valleys along the Sun and Dearborn rivers, there is in the southern part of the county a broad, fertile plain known as the Prickly Pear valley. The western side of this area is well cultivated, but there are thousands of acres of as good or better land to the west for which there is at present no water supply. Helena, the capital of the state, is on the southwestern edge of this open country. The irrigating ditches are all small, being owned principally by individuals. Good crops have sometimes been raised here without the application of water. The Missouri river is, unfortunately, too far below the general level to furnish any water from its abundant supply, but it is possible that some of its tributaries further to the southwest may be diverted to cover a portion of this area.

In the rapid development of irrigation along these small streams innumerable controversies arise, many of which become matters of litigation. The laws regarding the distribution of water are either not well understood, or they are not applicable to all the cases that arise. As in other counties, many farmers living along the lower portions of these streams have been deprived of water by later irrigators near the headwaters. The priority of right of use of water for agricultural purposes is often obscured by claims of water for mining purposes, and it is reported that in many instances prior rights for mining uses have been bought and the water used upon agricultural land to the detriment of other irrigators, complicating or destroying the value of their claims.

MADISON COUNTY is in the southwestern part of Montana, between Beaverhead and Gallatin counties. It extends from the continental divide on the south to the Jefferson river on the north, and includes the greater part of the course of the Madison river, as well as a portion of that of the Jefferson. Between the high mountain ranges, which rise to elevations of 10,000 feet or over, are several broad valleys containing a large amount of excellent arable land, and supplied with water from the almost innumerable streams issuing from the different ranges. In these valleys agriculture

has progressed rapidly by the aid of irrigation, the mountain streams being well distributed and so located that individual farmers can easily dig ditches and bring the water upon their land.

The Madison valley, lying in the western part of the county, is over 30 miles in length and in places 8 miles or over in width. The river of the same name flows northerly through the valley, carrying a considerable amount of water at all seasons of the year. The expense, however, of diverting water from this large river has been so great that individuals have in general been compelled to take water from the side streams, leaving the greater part of the water untouched. At some future time, however, the construction of large canals on each side of this river will bring under irrigation enormous areas of the best land in the valley. The water supply of the valley is in general good, and compared with other parts of the county the complaints of scarcity of water are few.

There are no large irrigating works in the Madison valley, although there are a number of ditches of considerable size. Among these may be mentioned that of the Madison Valley Ditch and Flume Company, which is about 18 miles long, 10 feet wide, 1½ feet deep, and cost \$12,000. This ditch takes water from Warm Spring creek, a tributary of the Madison river, and carries it, in places by means of rock cuts and fluming, northerly along the edge of the valley. The corporation owning the ditch divides the water to the shareholders according to the number of shares owned by each. Another ditch, that of the Indian Creek Land and Irrigation Company, is 10 miles long, about 13 feet wide, 2 feet deep, and cost \$7,000. It is owned by an association, each share entitling the owner to a certain proportion of the water.

West of the Madison valley the county extends over the Jefferson and Ruby ranges, thus including the Ruby valley and a portion of the Jefferson valley along the Beaverhead and Bighole rivers, as well as along the Jefferson river itself. The supply of water in these valleys is not as good as that in the Madison valley, and there are many statements to the effect that although there was ample water when the valley was first settled, yet with the gradual increase of land under irrigation, especially along the headwaters, the irrigators in these lower valleys suffer loss of crops.

The Bighole river, having a smaller area of cultivated land along its banks, has a large discharge throughout the year, but the Beaverhead diminishes rapidly during the summer, and in 1889 and 1890 was dry in various places. The Ruby river flows continuously throughout the year, and it is reported that all the ranches depending upon it for water have sufficient for their requirements, but its tributaries occasionally shrink far below the needs of the irrigators, and even become completely dry. The Ruby Valley ditch may be given as an example of irrigation development. This ditch is 8 miles long, 9 feet wide, 1½ feet deep, and cost about \$5,000. It takes water from the Ruby river by a temporary brush dam about two miles above Laurin and carries it down the east side of the valley. The water, as is usually the case, is divided equally among the partners owning the ditch.

The lowest bottom land in these valleys is generally devoted to raising hay, dependence being placed upon the annual overflow of the river. Other bottom lands a little above the reach of the river water are also irrigated for hay, while the bench lands, wherever the water can be brought upon them, are generally sown with alfalfa and grain. The irrigated area is rapidly increasing, settlers pushing up into the higher parts of the valley, while, at the same time, the older farmers are tilling new fields and gradually enlarging the old ditches. Water is used in general very freely, the quantity varying largely with the character of the soil, the season, and the experience of the irrigator.

Irrigation does not usually begin until the crops are well advanced, but in 1890 the season was so dry that in many places it was necessary to irrigate in order to plow the land, and water had to be applied throughout the season instead of but once or twice, as is usually the case. It sometimes happens that in wet seasons no irrigation is necessary for the first crop of alfalfa. The experience of the farmer counts for a great deal, and even in a dry season losses could often be avoided by the exercise of greater skill and judgment. For example, some of the crops failed because of delay in irrigation, while others were saved by the thorough soaking given to the ground at the time water was plentiful. The presence or absence of alkaline salts, especially on

the lowest ground, is a matter of great importance. There are several places in this county where, before the ditches were made, there was no sign of alkali, but upon irrigation the salt rapidly developed upon the surface, requiring years of patient toil before the farmers could wash it out.

In this county are many excellent sites for reservoirs in which the flood water of the spring could be held. The site most frequently mentioned is that at Redrock lake, in the southern end of the county near the continental divide. The water from this lake flows easterly into Beaverhead county, and along its entire course down Redrock creek and Beaverhead river there is urgent demand for it, since during the late summer the creek was often dry.

MEAGHER COUNTY is near the center of the state, and includes the area from the Missouri river on the west to the summits of the Little Belt and Snowy mountains on the east. There are three independent drainage basins in this county, namely, the headwaters of the Smith river, which rises in the center of the county and flows northerly through Cascade county into the Missouri, those of the Musselshell, which flows in a general easterly direction, and third the so-called Missouri valley on the west. Each of these divisions is bounded by high mountains, and thus the water supply is large, each stream supplying many ditches, owned, as a rule, by individual ranchmen.

The Musselshell and Smith rivers rise on opposite sides of the Elk mountains, being separated on the north by a comparatively low pass. Agriculture has developed along the narrow valleys to such an extent that most of the available water is used, although a far larger acreage could be covered by a more systematic and economical distribution of the water.

In the valley of the Musselshell the greater part of the bottom land is covered by private ditches, and is used to the extent of the water supply. The higher bench lands are broken, but there are large areas that, with a more abundant water supply, could be brought under irrigation. Among the ditches taking water from the Musselshell it is sufficient to describe one in general terms. For instance, a private ditch taking water above Winnecook is 5 miles long, 7 feet wide on bottom, has an average depth of water of $1\frac{1}{2}$ feet, and falls $\frac{1}{4}$ of an inch to the rod, the cost being probably about \$3,000. Water is diverted from the river through a flume 8 feet wide, sunk so that it is 1 foot below low-water mark, thus obviating the necessity of a dam. It is used from April until the end of July, the quantity being estimated at 1 miner's inch to the acre.

On Smith river, as is usually the case, there is ample water in the higher valleys, but the land below is not as well supplied as that above. The amount of water in the river itself, especially where it enters Cascade county, is usually very small, owing to the diversions made higher up the stream, so that irrigators in Cascade county are interested in securing water conservation, being often in controversy with their neighbors.

The Missouri valley contains the principal agricultural land of the county. The Missouri river leaves a canyon above Toston, the valley widening to a breadth of from 1 mile to 8 miles, and extending in all a distance of about 25 miles. Along this course the river has in places cut bottoms from 1 mile to 2 miles in width, above which is the bench land, which in turn gradually disappears into the foothills of the Big Belt mountains to the east. From these mountains come many streams, each of which has eroded a deep and wide notch or coulee in the bench, in many cases forming bottoms of a width sufficient for cultivation. In these the water flows in abundance during the spring and early summer, but it declines or even disappears in July and August. Most of the irrigation is done by means of water from these creeks, for the Missouri river, although carrying a great quantity of water, is relatively at too low a level for the irrigation of much of the best land. Ditches from the river are expensive, and the cost of maintaining the dams and headworks is almost prohibitory for a single individual or even an association of farmers.

A notable ditch among those in the Missouri valley is that taking water from a spring rising on a bank of the Missouri about 4 miles above Toston. The total length is 9 miles, its bottom width 6 feet, and its cost, approximately, \$8,000. It is owned by individuals, who distribute the water among themselves, allowing about 1 miner's inch to the acre. Water is generally used from the middle of April to the latter part of September or into October, the land irrigated being used for raising small grains and hay in about equal acreages.

It is possible that in the future a large canal may be taken from the Missouri at a point in the canyon above Toston and carried out around the eastern edge of the valley, thus bringing an enormous acreage under irrigation. If this were done, the waters of the numerous side streams, if properly held in reservoirs, would be available for the lands lying above the level of such a canal. As it now is, throughout the county, and in fact the entire state, the waters of the creeks are often claimed by the farmers occupying the lower grounds far away from the mountains.

Missoula county lies in the extreme western end of the state, beyond the main divide of the Rocky mountains, and contains the greater part of the drainage area of Clarke fork of the Columbia river. On its northeastern corner, however, the county extends over the continental divide and includes a long, narrow area on the headwaters of the Marias river, which flows into the Missouri. The northwestern part is traversed by the Kootenay, a tributary of the Columbia. In the northern end of the county there is usually sufficient rainfall for agricultural purposes, and irrigation has been practiced only to a small extent. In the southern valleys, however, its necessity and benefits have long been recognized.

The principal areas of tilled land are in the southern part of the county in the valley along the Bitterroot river, which flows northward into the Missoula, the chief tributary of Clarke fork of the Columbia. The Bitterroot valley is over 50 miles in length and from 4 to 12 miles in width, with a large extent of arable land on both sides of the river. The land lying on the left or western side of the stream is well watered by the numerous creeks that flow from the Bitterroot range, which forms the boundary between Montana and Idaho, but on the eastern side the supply is less abundant.

The tilled land in the Bitterroot valley is mainly irrigated in a somewhat primitive manner by small ditches constructed by individual ranchmen or by a partnership of neighboring irrigators. These ditches lead from the mountain streams, and in a few cases, mainly on the east side, from the Bitterroot river itself. The irrigated land is on the bottoms along the streams, the bench lands back from the river being as a rule still untouched. By the construction of a large canal taking water from the Bitterroot near the head of the valley and following down near the foothills, a very large area of bottom land and perhaps some of the bench land could be brought under irrigation. If this were done, the water of the side streams could be brought out upon much of the remaining bench land lying at an elevation too great to be covered by the main canal system. Unfortunately, however, in this valley, as in most of the valleys of the arid region, irrigation has been developed without system, and the water of the side streams, which could be brought upon the higher bench lands, is usually claimed by the irrigators on the lower lands. Thus the future construction of a comprehensive, economical system will be hampered by the necessity of acquiring and extinguishing many prior rights, the cost of which, when such a scheme is undertaken, is usually excessive.

The altitude of the lands of this valley is from 3,200 to 4,000 feet, and the valley being sheltered by high ranges of mountains, the climate is mild, being perhaps the most favorable in Montana for the cultivation of fruit. The agricultural land also possesses the advantage of having a ready market for produce at the mining towns in the adjoining counties.

The water supply being in general ample, large quantities are usually employed, and the water duty is correspondingly low. This is due in part, however, to the fact that much of the lower land is gravelly and conducts the water away readily, so that a strong flow of water is necessary in order to irrigate successfully. By the application of plenty of water, however, the apparently worthless gravel bars along the Bitterroot river have been made to yield as high as five tons of alfalfa to the acre. During the spring floods the lower lands are in part submerged, or saturated by seepage from the river, so that forage crops are successful without any further watering.

One of the largest irrigating canals in this valley is the Republican ditch, which takes water from the Bitterroot about eleven miles above Corvallis, and a short distance below the mouth of Weeping Child creek, carrying it down on the east side of the valley to Hamilton and Corvallis, and crossing Skalkaho creek on the way. The total length of the main ditch is reported to be 14 miles, its width 12 feet, narrowing to 6 feet at the end, and its cost \$16,000. A number of other

canals, some of large size, have been projected, the valley offering apparently an excellent opportunity for investment on account of the large area of arable land and the facilities for obtaining water by the expenditure of a reasonable amount of capital. Several storage schemes have also been discussed, as there are excellent opportunities for holding the excess water of the spring in lakes or basins at the head of many of the small creeks, whose summer supply is insufficient for the land now under ditch. For example, at the head of Willow creek, which flows from the east by Corvallis into the Bitterroot, is a lake which could probably be made to hold a large amount of water by the construction of regulating works. It is reported, also, that a reservoir has already been constructed on Carlton creek, and that there are natural reservoirs at the head of nearly all the creeks coming from the west.

The need of officers to distribute the water impartially to the various ditches is keenly felt by many irrigators, for the increase in the area of the irrigated land has already reached a point at which, in times of drought, great care and impartiality should be exercised in dividing the water among the various claimants. Many complaints are made against the imperfections of the state law and as to the expense of defending or establishing water rights by a resort to the courts, the cost to the plaintiff being given as from \$200 to \$1,000, a great hardship even to a prosperous farmer. In 1889 all the ranches depending upon the small creeks suffered from the scarcity of water, and, in addition to the loss of crops, there were many costly disputes regarding water rights.

In the upper course of the Bitterroot above the main valley are a number of ranches, but here the arable land is limited, and the water supply so great as to be in excess of all demands. Also on Rock creek, east of the Bitterroot valley, similar conditions prevail. There grazing is the principal industry, as there is little farming land, and the altitude is too great for many crops. Northwesterly from the Bitterroot valley down along the Missoula river are several open valleys, but in these irrigation is practiced only to a small extent on account of the expense of diverting water from the main stream. Crops can often be raised without the application of water, but during the drought of the past few years nearly everything has failed. The same conditions also prevail further down the river on Clarke fork of the Columbia, which is formed by the junction of the Missoula and Flathead rivers. For example, at Horse Plains are extensive areas on which good crops are occasionally raised, but the expense of taking water from the river is too great for the ranchmen, although they believe in irrigation and would gladly be relieved of the necessity of trusting wholly to fortunate rains. Some of the low-lying land along Clarke fork is wet by the annual overflow of the river, this being known among the inhabitants as subirrigation, and from the results following this occurrence the farmers are led to believe in the great benefit to be derived from a thorough system of irrigation.

The Flathead Indian reservation occupies a large part of the center of this county, including the lower part of Flathead lake and also the lands along the river draining the lake. Irrigation is practiced to a small extent by the Indians through the influence of the Jesuits, who have established missions among them. North of Flathead lake and beyond the reservation is an extensive area of excellent agricultural land along Ashley, Stillwater, and Clearwater creeks and Flathead river. Here crops of all kinds, wheat, oats, vegetables, and fruits, have been raised without irrigation, this method of agriculture, however, being practiced only to a small extent. In the droughts of 1889 and 1890, moreover, the crops were small in amount, in some cases being entirely lost, so that the farmers had their attention forcibly called to the advantages of a good water supply. Irrigation can probably be cheaply developed, as the rivers and tributaries carry a large amount of water throughout the year.

PARK COUNTY is in southern Montana, north of the Yellowstone National Park, and receives a great part of the drainage of that elevated, mountainous region. The county itself contains many high mountain ranges, and is thus well watered, the available supply being in many cases in excess of the land to be irrigated. In the southern part of the county are the Beartooth and Snowy mountains, rising to heights of over 10,000 feet, being continuations of the great Absaroka range, from which comes the abundant water supply of the valleys to the south, in Bighorn county, Wyoming.

The Yellowstone river, flowing northerly from the National Park, passes through the wonderful canyons for which the river is famed, and enters the county at its southern border. Here the canyon walls begin to retreat, leaving a narrow strip of lowland, which in places widens out to a breadth of half a mile or more. About 25 miles beyond the county line the valley opens still wider, and the river for 35 miles is bordered by open land from 1 mile to 2 miles or more in width. Along this portion of the stream are several towns, depending mainly upon stock raising and agriculture. North of this open country the river plunges through what is known as the Lower Canyon, emerging again into a comparatively wide valley, at the head of which is Livingston. Beyond this point the stream continues with rapid fall through narrow valleys, and is bounded usually by high bench lands, the remnants of the plain into which the river has cut its broad channel.

The agricultural lands along the Yellowstone and its larger tributaries receive their water from the smaller streams which issue from the high mountains on both sides. In general the water supply on the east side is better than that on the left or western bank, from the fact that on the former side the mountains are higher and are often covered with snow throughout the summer. In the valleys close to the mountains an occasional crop can be raised without irrigation. For example, fall wheat in a favorable season has been successful without the artificial application of water. A few ditches have been taken from the river to cover the lower lands, but the expense of maintaining them is often great. They have, however, plenty of water at all times, which is more than can be said of some of the other ditches.

In the larger valleys the water has already been filed upon to such an extent that the amount claimed far exceeds the total discharge of the streams, and the farmers fear that the ditches now under construction can not obtain sufficient water without taking what is now used or demanded by prior appropriators. The Yellowstone river itself carries more than enough water to irrigate all the agricultural land along its course, but unfortunately the level of the water in the river is too low to cover much of the best land, or the expense of building canals has been found upon survey to be so great as to be prohibitory for single individuals or even associations of irrigators, and thus attention has been confined to the smaller streams, leaving untouched vast tracts of fertile land to which in the future the river water may be brought.

The soil on the benches, while in general of excellent character, is occasionally very thin, appearing on the surface to be composed wholly of gravel. A curious behavior of this soil has been noted in many instances upon the first application of water. One case is cited on good authority in which the general level of the soil on the first thorough saturation was reduced from 1 foot to 1½ feet or more, the underlying gravel beds being apparently consolidated by the excessive amount of water. In other cases the gravel was so open at first that large irrigating streams disappeared into the ground as though running into a sieve. In time, however, this open land becomes silted, and water can be used to advantage.

The ditches from the mountain streams are usually owned by individuals or by associations of ranchmen acting together and distributing the water equally, or according to some agreement among themselves. Between the owners of the different ditches along the same stream, however, especially in cases where the water supply is short, there is little or no agreement. During the drought of 1889 and 1890 the necessity of efficient water supervision was appreciated more than before, and many complaints are made as to the defects of present methods, or rather lack of method, of distributing water to the ditches. All crops usually require two irrigations during the season, and at the time of the second application the water supply is, as a rule, running short, although plentiful in the preceding months. Especially is this the case along Shields river, Medicine Bow and Sweetgrass creeks. In the southern part of the county, however, and especially in the southeastern part near the coal mines, where the valleys are narrow and the mountains high, it is probable that all the arable land can be brought under irrigation by the present water supply.

SILVERBOW COUNTY is in southwestern Montana, lying across the continental divide, so that the snows falling upon the high peaks within this area furnish water both to the Columbia river

and to the Missouri. This is a mining county, agriculture being a comparatively unimportant industry, for the altitude is from 5,500 feet upward, and the climate is too severe for any but the hardier grains and forage crops. The city of Butte is in this county, as are several other mining towns of importance, and these furnish a ready market for agricultural products.

The principal bodies of cultivated land are along the Bighole river, which forms for some distance the southwestern boundary of the county, or in the valley of the Silverbow, near Butte, in the northern end of the county. The ditches are mainly small and owned by individuals, the topography of the country being such that irrigating ditches are quickly and cheaply made. There is ample water in the Bighole river for all the land along its banks, but in order to utilize this fully it will be necessary to construct one or more large canals. At present the water is taken out only upon the lowest land along the river and its tributaries, leaving the higher bench lands untouched, although these latter contain agricultural land as good as, if not better than, that now utilized.

On Silverbow creek, one of the tributaries of the Deerlodge river, the water supply is not so abundant, and the irrigators state that as the timber is cut in the mountains the amount of water apparently diminishes year by year, or at least that which flows during the summer. Already several small reservoirs have been built by individuals, and others are projected. There are a large number of sites suitable for the construction of storage works, where water can be held for use upon the land along the Deerlodge valley. In some of the irrigating ditches below the mining region trouble is occasionally experienced on account of the débris or tailings from the mills, concentrators, and placer mines in the mountains. This fine material is in time of flood washed down in great quantities, and if then carried into the ditches it silts them up rapidly.

YELLOWSTONE COUNTY is a little southeast of the center of the state of Montana, lying in a southwestern prolongation of the Great Plains region, which covers the whole of eastern Montana. The surface is level or gently undulating, the general elevation being from 3,000 to a little over 4,000 feet. The county embraces that part of the plain which is south of the Musselshell river, the Yellowstone river forming its southern boundary. These rivers have carved narrow valleys through the plains, so that their bottom lands are bounded by steep bluffs a hundred or more feet in height, and an observer traveling along the river courses finds them bounded by bench lands, whose nearly level surface appears to be so high above the river as to render the introduction of water upon them of doubtful practicability. The edges of these benches are in places cut by small tributaries of the Yellowstone and Musselshell, or by coulees.

The principal industry is the raising of cattle and sheep, since the bench land, though dry, affords excellent grazing. Agriculture is practiced by the ranchmen, who irrigate the lower lands along the streams. Nothing can be raised without irrigation, but with it nearly all the products of the northern states are cultivated successfully, the only drawback reported by the farmers being the hail, which at times has destroyed large portions of their crops. The land on the benches, though apparently not so rich as that in the bottoms, would, nevertheless, with the introduction of water, be very productive. Before this can be done it will be necessary to make extensive surveys, in order to determine whether it will be feasible to bring the water of the Yellowstone out upon this land. There is no question as to the supply of water in this magnificent stream, or as to the possibility of bringing the water upon a portion of these high plains; but regarding the expense involved and the engineering difficulties to be encountered, as well as the acreage that can be profitably irrigated, there is much yet to be learned.

Along the Musselshell the land is rich, but the difficulty and uncertainty of obtaining water are great. The river was dry in 1890, and is always liable to be low or even to stop flowing during the latter part of the summer. On the other hand, the floods are destructive, and dams placed in the river for diverting the water have been washed out. The river is bounded by bluffs or banks so high that individual effort is rarely successful in taking out ditches, and the lands along the bottom are in general too small to repay the cost of a large canal.

There is one canal nearly 40 miles in length taking water from the Yellowstone and carrying it to Billings, thus covering a long strip of the lower land. Besides this canal, which is

owned by a corporation, there are several of smaller size owned and controlled by farmers, and also a larger number of small private ditches irrigating one or two ranches. The annual cost of water from the larger canal is reported to be \$2.00 a year per miner's inch. This quantity is commonly said to water one acre, although in fact it often covers more, and cases are reported where 40 to 50 miner's inches have raised crops successfully on 160 acres. On the other hand, where the farmer must conduct a small quantity of water in his laterals for some miles before using it, he states that it is difficult to irrigate at the rate of one acre per miner's inch on account of loss in transit by evaporation and seepage. Complaint is frequently made that at the rate of \$2.00 per miner's inch the annual water dues become a burden too heavy for the ordinary farmer.

The development of irrigation is reported to have been retarded by the fact that the smaller owners can not afford to build extensive ditches, and the owners of large tracts of land, including some of the best land in the county, are holding these for speculative purposes. Most of the farmers migrated from the east, and on coming into the country either knew nothing about irrigation or believed it to be unnecessary, and it is only within a comparatively few years that the inhabitants have begun to appreciate the necessity and possibilities of this method of agriculture. The difficulties in the way of taking ditches from the Yellowstone have prevented an extensive development of systems of small private ditches, which are so common in localities where the streams are small and easily controlled. High-water ditches, that is, those receiving water in times of flood only, are, however, largely used. In a few instances the attempt has been made to raise water from the river by mechanical means, for instance, by the ancient Egyptian noria or undershot water wheel, which elevates the water by means of buckets placed on the rims of the wheel. The liability of much of this country to be visited by sudden local storms renders it necessary to locate and construct the ditches with extreme care, and to place flumes and other structures in such a manner that they will be exposed as little as possible to the torrents of rain which accompany these storms. The most notable canals in the county are briefly described below.

The Minnesota and Montana Land and Improvement Company's canal, mentioned above, takes water from the Yellowstone river at a point on the north bank about 35 miles above Billings. The total length of the canal is estimated to be 39 miles; its width, 24 feet; its ordinary capacity, approximately, 100 second-feet, and its cost, about \$125,000. There is no dam across the river, the timber headgates being set in masonry, and the river bank on each side protected by rock. This corporation sells water for the season from May 1 to October 1 at the rate of \$2.00 per miner's inch, measured under a 6-inch pressure. For example, the water flowing throughout the season from a box 12 inches wide, with the gate raised 1 inch from the bottom, is considered to be 12 miner's inches. It is claimed by the company that 40 inches will usually irrigate 160 acres. Further down the river on the north side, and in succession, are the ditches known as the Italian Company's, the Mill ditch, Clarke Fork ditch, and the Yellowstone and Canyon creek.

The Yellowstone and Canyon creek canal heads about 16 miles below the canal above described, and conducts the waters of the river for about 13 miles to the vicinity of Billings. The canal is 11 feet wide, carries ordinarily about 30 second-feet, and its total cost was \$10,000. It is owned by about twenty stockholders, each taking an amount proportionate to the number of shares owned by him, measurement being made under a 4-inch pressure. The annual assessment for maintaining the canal is about 50 cents per acre, a portion of which can be worked out by the shareholder at the rate of \$2.50 per day. The greater part of the land irrigated is used for raising hay, a smaller acreage being given to oats, wheat, potatoes, corn, and vegetables.