

UNITED STATES BUREAU OF EDUCATION
BULLETIN, 1913, NO. 36 WHOLE NUMBER 546

REPORT ON THE WORK OF THE
BUREAU OF EDUCATION FOR THE
NATIVES OF ALASKA, 1911-12



WASHINGTON
GOVERNMENT PRINTING OFFICE
1913

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REPORT ON THE WORK OF THE BUREAU OF EDUCATION FOR THE NATIVES OF ALASKA, 1911-12.

PART I. GENERAL SUMMARY.

REPORT ON EDUCATION.

DEPARTMENT OF THE INTERIOR,
BUREAU OF EDUCATION, ALASKA DIVISION,
Washington, February 1, 1913.

SIR: I have the honor to submit the annual report of the Alaska division of the Bureau of Education for the fiscal year ended June 30, 1912.

During this period the field force of the Alaska school service consisted of 4 district superintendents of schools, 1 assistant superintendent, 108 teachers, 8 physicians (1 of whom also filled another position), 8 nurses, 2 contract physicians, and 3 hospital attendants. Eighty public schools were maintained, with an enrollment of 4,018 pupils, and an average attendance of 1,805.

METHOD OF ADMINISTRATION.

The regulations governing the Alaska school service permit the greatest freedom of action on the part of the local employees that is consistent with the ultimate responsibility of the Commissioner of Education. Each of the four school districts is under the immediate charge of a district superintendent who has almost absolute control of the work of the Bureau of Education in his district, and he in turn delegates to the teachers the greatest possible freedom of action in the local affairs of the schools. At the beginning of each fiscal year the Commissioner of Education distributes to the purchasing agent in Seattle and to the district superintendents, from the appropriation made by Congress for education in Alaska, definite sums for the purchase of supplies, furniture, equipment, and fuel, for the payment of rental, for furnishing medical relief to the natives, for the relief of destitute natives, and for the payment of traveling expenses. In like manner, from the authorizations received by them from the Commissioner of Education, the district superintendents distribute to the teachers, physicians, and nurses in their districts "subauthoriza-

tions" to enable them to make expenditures for local needs. Except in grave emergency, no expenditure is permissible unless it is covered by an authorization or by a subauthorization. By this method of distributing funds each superintendent and teacher is enabled to meet, within the limit of expenditure authorized, every need of the service as it arises.

MEDICAL WORK.

Without neglecting the work in the schoolrooms and the sanitary work in the villages, special attention has been given during the year to medical work among the natives. Realizing the absolute necessity for checking disease among the natives of Alaska, \$25,144.50 of the appropriation for education in Alaska was used (1) in maintaining hospitals in rented buildings at Juneau and Nushagak; (2) in payments under contracts with the Holy Cross Hospital at Nome and the Fairhaven Hospital at Candle for the treatment of diseased natives, upon the application of a superintendent, physician, or teacher in the Alaska school service; (3) in the employment of 7 physicians in hospital work and in checking disease among the natives in their respective districts; (4) in the employment of 8 nurses in the hospitals and in hygienic and sanitary work in the native schools and villages; and (5) in furnishing medical chests to the teachers to enable them to treat minor ailments.

During the autumn of 1911 quarantine maintained at the mouth of the Porcupine River by Mr. George E. Boulter, superintendent of schools in the upper Yukon district, and by Dr. Grafton Burke, medical missionary of the Protestant Episcopal Church at Fort Yukon, who was temporarily employed by the Bureau of Education, was an important factor in preventing smallpox from entering the Yukon Valley by way of the Porcupine.

COOPERATION BY PUBLIC HEALTH SERVICE.

During the summer of 1911 Passed Asst. Surg. Milton H. Foster, of the Public Health Service, made a preliminary investigation of health conditions among the natives of southern Alaska with a view to inaugurating adequate measures for their relief. One of Dr. Foster's recommendations was the extension of the medical work in connection with the Alaska school service. In pursuance of this recommendation and in order that the entire medical work among the natives of Alaska might have expert supervision, upon the request of the Secretary of the Interior, the Surgeon General of the Public Health Service, in March, 1912, detailed Passed Asst. Surg. Emil Krulish for service in Alaska for an indefinite period under the direction of the Commissioner of Education. With the consent of the Secretary of the Treasury, the duties of Dr. Krulish for the Bureau of Education will be (a) to supervise all measures for the

medical and surgical relief of the natives of Alaska, (b) to act as instructor to the teachers of the United States public schools in Alaska in all matters pertaining to the sanitary education of the natives, (c) to give instructions to teachers in first aid to the injured or sick, and (d) to act in a general advisory capacity to the superintendent of education of natives of Alaska in all matters pertaining to sanitation, hygiene, maintenance of hospitals, and other matters of like character. The plans for the work of Dr. Krulish in Alaska include prescribing and enforcing regulations for checking disease in the native villages.

THE HYDABURG VILLAGE.

For several years there existed a desire among the members of the Hydah Tribe living in the villages of Klinquan and Howkan, in southeastern Alaska, to migrate to a site advantageously situated with regard to fishing and hunting grounds and running water, where they could found an exclusively native village and build up industries owned and operated by the natives themselves. During September, 1911, these natives moved to the selected site, on the west shore of Prince of Wales Island, where they founded a village, which they named Hydaburg. A United States public school was at once established for their benefit. By Executive order a tract of approximately 12 square miles was reserved for the use of this colony and such of the natives of Alaska as may settle within the limits of the reservation. Under the supervision of the teacher of the United States public school, the Hydaburg Trading Co. was organized to transact the mercantile business of the settlement and the Hydaburg Lumber Co. was organized to operate a sawmill. The natives were aided by the Bureau of Education in equipping the mill. A careful examination of the affairs of the two companies in December, 1912, by the supply agent of the Alaska division, detailed from Seattle for the purpose, showed that these native enterprises had been eminently successful. It was found possible for the directors of the Hydaburg Trading Co. to declare a cash dividend of 50 per cent and still have funds available toward the erection and equipment of a larger store building. The sawmill had provided the lumber used in building the homes for the natives, and had also furnished acceptable lumber to a number of the neighboring canneries.

THE ERUPTION OF KATMAI VOLCANO.

On June 6, 1912, Mount Katmai, a supposedly extinct volcano in southwestern Alaska, burst into eruption. For two days and nights a rain of ashes fell; the darkness was illumined by occasional flashes of lightning; the air was charged with suffocating gases; frequent earthquake shocks were felt. An extensive region was buried deep in volcanic matter. The eruption caused no loss of life, but destroyed

the houses of the natives living on the coast adjacent to the volcano and rendered necessary the distribution of food to the people in the stricken district, for the gardens were deeply covered and the salmon streams were choked with ashes. All employees of the Government in the region affected by the eruption cooperated with the Revenue-Cutter Service in rendering relief. Capt. K. W. Perry, commanding the revenue cutter *Manning*, conveyed 98 natives, whose homes had been destroyed, to a site on the Alaska Peninsula which had been selected for their new home. Here the two teachers from the United States public schools at Seldovia and Tatitlek supervised the erection of the new village, to which the name of Perry was given. The materials for the construction of 21 houses, to shelter these destitute natives, and the most necessary articles for their use were sent to them from Seattle.

JUNEAU CONFERENCE.

A conference of the teachers of the schools in southeastern Alaska and native delegates representing 9 of the largest villages was held in Juneau from October 28 to November 2, under the direction of the district superintendent. The morning sessions were for teachers only, and consideration was given to the various phases of the teachers' work. The afternoon sessions were devoted to discussions of the social and economic problems confronting the natives. The native delegates expressed themselves clearly and forcibly in regard to those problems. Resolutions urging extension of the medical work among the natives, assistance to the natives in the establishment of industrial enterprises, and legislation granting citizenship to duly qualified natives were adopted by the conference.

RECOMMENDATIONS.

I can not urge too strongly the importance of the appropriation by Congress of funds to enable the Bureau of Education to make adequate provision for the medical and sanitary relief of the natives of Alaska. The use for this purpose of part of the appropriation for the education of the natives is an emergency measure dictated by the absolute necessity for action. The entire appropriation is urgently needed for the support of the schools and to promote the industrial development of the native population. Under a decision of the comptroller this appropriation can not be used in erecting hospitals.

I repeat my recommendation for the passage of a compulsory school attendance law, which is especially needed in native villages adjacent to the large towns. It is greatly to be desired that the compulsory school attendance bill which was passed by the Senate at the last session, but not acted upon by the House, should become a law.

I again invite attention to the fact that the Bureau of Education should own and maintain a seagoing vessel in which to transport

teachers, building materials, and school supplies from Seattle to the schools on the shores of Bering Sea and the Arctic Ocean. Such a vessel would in a few years save freight charges equivalent to its original cost; it would enable the district superintendents and physicians to inspect thoroughly the remote Arctic villages, and furnish means of instructing in seamanship the natives along that coast.

LIST OF PERSONS IN THE ALASKA SCHOOL SERVICE (EXCLUSIVE OF TEACHERS), 1911-12.

William T. Lopp, superintendent of education of natives of Alaska and chief of the Alaska Division, Alaska.

EMPLOYEES IN THE WASHINGTON OFFICE.

William Hamilton, Alaskan assistant, Pennsylvania.
 David E. Thomas, clerk, Massachusetts.
 Julius C. Helwig, junior clerk, Indiana.
 Mrs. Lottie E. Condron, stenographer and typewriter, District of Columbia.

EMPLOYEES IN THE SUPPLY AND DISBURSING OFFICE, SEATTLE.

Harry C. Sinclair, supply agent, Maryland.
 Alexander H. Quarles, special disbursing agent, Georgia.
 Chauncey C. Bostor, clerk, Washington.
 Miss Florence P. Hutchinson, stenographer and typewriter, Washington.

EMPLOYEES IN ALASKA.

Superintendents.

Andrew N. Evans, district superintendent of schools in the northwestern district of Alaska, Nome.
 George E. Boulter, district superintendent of schools in the upper Yukon district of Alaska, Tanana.
 Henry O. Schaleben, district superintendent of schools in the southwestern district of Alaska, Seward.
 William G. Beattie, district superintendent of schools in the southeastern district of Alaska, Juneau.

Special disbursing agent and assistant to the district superintendent of schools in the northwestern district of Alaska.

Walter C. Shields, Nome.

Physicians.

Henry O. Schaleben, M. D., superintendent southwestern district, Seward.
 Paul J. Mahone, M. D., Juneau.
 Bruce H. Brown, M. D., Russian Mission and lower Yukon region.
 Daniel S. Neuman, M. D., Nome.
 Linus H. French, M. D., Nushagak.
 Ovid B. Orr, M. D., Akhiok, Kodiak Island.
 Milton H. Foeter, M. D., Public Health Service, on special detail, July 1 to September 8, 1911.
 Emil Krulish, M. D., Public Health Service, on special detail, after April 21, 1912.

Contract physicians.

H. R. Marsh, M. D., Point Barrow.
 Curtis Welch, M. D., Council.

Nurses and teachers of sanitation.

Miss Angelica A. Babbitt, Killisnoo.
 Miss Louise C. McConnel, southeastern district, July 23, 1911, to April 20, 1912.
 Miss Jean V. Rankin, Juneau.
 Miss Elsie H. Peterson, Juneau, February 17, 1912, to June 30, 1912.
 Mrs. E. C. Seward, Nushagak.
 Mrs. Rebekah B. Young, southwestern district.
 Mrs. C. W. Hawkesworth, Hydaburg.
 Miss Louise C. MacCormac, upper Yukon district, July 1 to August 31, 1911.

Contract hospitals.

Holy Cross Hospital, Nome.
 Fairhaven Hospital, Candle.

TABLE 1.—Teachers, school attendance, and length of term, 1911-12.
 NORTHWESTERN DISTRICT—ARCTIC OCEAN AND BERING SEA, REGIONS, AS FAR
 SOUTH AS CAPE NEWENHAM.

Schools.	Teacher.	Appointed from—	Average daily attendance.	Enrollment.	Length of term in months.
Akiak	John H. Kilbuck	Alaska	32	46	12
Akulurak	Mary Laurentia	do	41	50	7
Barrow	Delbert W. Cram	Washington	67	98	12
Do	Mrs. Belle C. Cram	do			
Do	Alice Ahlook	Alaska			
Bethel	Samuel H. Rock	do	21	30	8
Council	Charles W. Snow	Maine	16	34	9
Deering	Iva Kenworthy	Alaska	24	63	8
Diomedes	James H. Hamilton	Indiana	16	31	10
Do	Charles Menadelook	Alaska			
Gambell	Miss A. C. Anderson	Nebraska	55	143	12
Do	Theoline Ingwaldsen	Washington			
Golovin	Anna A. Hagberg	Illinois	27	56	8
Do	Mary K. Westdahl	Alaska			
Goodnews Bay	Claude M. Allison	Washington	22	68	12
Hamilton	Oscar M. Groves	do	11	22	8
Hooper Bay	Charles F. Richardson	do	30	92	12
Icy Cape	James V. Geary	California	16	37	12
Do	Mrs. Eva W. Geary	do			
Do	Hannah C. Ahnevik	Alaska			
Irtoc	H. D. Reese	Pennsylvania	18	41	12
Kinak	John W. Lively	Washington	12	38	12
Kivalina	Raymond A. Bates	Alaska	19	56	10
Do	Margaret E. Bates	do			
Koserefsky	Mary Bernadette	do	100	104	8
Do	Onesime Lacouture	do			
Kotzebue	Mrs. Lucy W. Cox	California	30	69	7
Do	Marie MacLeod	Alaska			
Koyukuk	Chester C. Pidgeon	Washington	7	35	12
Louden	Mrs. Ella E. Eby	Alaska	9	29	9
Mountain Village	Walter E. Cochran	West Virginia	11	22	12
Do	Mrs. Minnie Cochran	do			
Noatak	Elmer M. Harnden	Washington	27	34	12
Nome	Walter H. Johnson	Alaska	19	40	12
Nulato	Mary W. Salley	do	36	53	8
Pilot Station	Mrs. Catherine Kilborn	Pennsylvania	17	59	10
Point Hope	Fred M. Sickler	Indiana	26	93	10
Quinhagak	Mrs. Anna C. Rehmel	Iowa	18	37	9
Russian Mission	Mrs. Clara M. Brown	Missouri	9	14	7
St. Michael	Ernest W. Hawkes	South Dakota	21	86	12
Do	Annie Aloka	Alaska			
Selawik	Leslie G. Sickles	Washington	22	59	12
Shageluk	H. Ray Fuller	do	12	29	12
Shahmaret	George B. Belfer	do	22	36	10
Shungnak	Charles D. Jones	do	31	61	11
Shuk	William B. Van Valin	do	15	31	9
Teller	Jorgine Ernestvedt	do	9	20	8
Unalakleet	Elmer E. Van Ness	Tennessee	45	89	10
Do	Mrs. Eula W. Van Ness	do			
Do	Samuel Anaruk	Alaska			
Do	Ebba Tomron	do			
Wainwright	Fay R. Shaver	Washington	21	45	12
Wales	Mattie Caldwell	Missouri	52	64	12
Do	Arthur Nagosruk	Alaska			
Total			999	2,016	

TABLE I.—Teachers, school attendance, and length of term, 1911-12—Continued.

UPPER YUKON DISTRICT—VALLEYS OF THE YUKON AND ITS TRIBUTARIES BETWEEN 141° AND 156°.

Schools.	Teacher.	Appointed from—	Average daily attendance.	Enrollment.	Length of term in months.
Circle.....	Ethel Ellis.....	Missouri.....	9	19	8
Eagle.....	Mary L. Hammond.....	Alaska.....	8	16	8
Kokines.....	Julius Jette.....	do.....	6	16	7
Stevens Camp.....	Lawyer E. Rivenburg.....	New York.....	16	47	12
Tanana.....	Miss Orab D. Clark.....	Washington.....	7	25	9
Yukon.....	Gertrude K. Nielsen.....	do.....	16	50	10
Total.....			62	173	

SOUTHWESTERN DISTRICT—BERING SEA REGION, SOUTH OF CAPE NEWENHAM, AND NORTH PACIFIC COAST REGION WEST OF 141°.

Akhlok.....	Mrs. Viola E. Orr.....	California.....	20	53	8 1/2
Alka.....	Harry G. Sellar.....	Washington.....	28	49	12
Do.....	Mrs. Katherine D. Sellar.....	do.....			
Chignik.....	Jessamine E. Millikan.....	Indiana.....	16	26	4
Chogiung.....	Mary Watson.....	Washington.....	23	57	12
Copper Centec.....	Lucius A. Jones.....	do.....	7	29	12
Hiamna.....	Hannah E. Breece.....	Alaska.....	22	40	12
Kanakanak.....	Thomas W. Schultz.....	Pennsylvania.....	11	28	12
Kenai.....	Willietta E. Dolan.....	Oregon.....	39	82	10
Do.....	Alice M. Dolan.....	do.....			
Kogiune.....	John J. Cavana.....	Alaska.....	14	26	8
Kulukak.....	Warren L. Call.....	Washington.....	25	54	12
Do.....	Mrs. Corinne Call.....	do.....			
Nushnak.....	Mrs. Lydia Y. Fountain.....	New York.....	19	42	10
Beldovia.....	Preston H. Nash.....	Washington.....	22	33	8
Sustina.....	Jessamine E. Millikan.....	Indiana.....	20	31	8
Tattilek.....	Chesley W. Cook.....	Washington.....	22	39	12
Do.....	Mrs. Mary Cook.....	do.....			
Togiak.....	John S. Calkins.....	Montana.....	13	28	12
Tyonek.....	Harry N. Cooper.....	Washington.....	37	56	10
Ugashik.....	John C. Lowe.....	do.....	17	39	12
Unalaska.....	Noah C. Davenport.....	do.....	53	70	12
Do.....	Mrs. Clara E. Davenport.....	do.....			
Do.....	Mrs. Mary Lavigne.....	Alaska.....			
Total.....			404	779	

SOUTHEASTERN DISTRICT—NORTH PACIFIC COAST REGION EAST OF 141°.

Craig.....	Edna L. Freeman.....	Alaska.....	17	45	3
Douglas.....	Esther Johnson.....	Oregon.....	20	71	7
Do.....	Isabelle S. Thursby.....	Illinois.....			
Haines.....	Benjamin B. McMullin.....	Washington.....	15	49	7
Hoonah.....	Elnora Glnther.....	Oregon.....	31	111	7
Hyalburg.....	Charles W. Hawkesworth.....	Alaska.....	33	55	18
Do.....	William L. Hughes.....	Washington.....			
Do.....	Flora A. Hughes.....	do.....			
Juneau.....	Mrs. Marie B. Slightam.....	Alaska.....	14	79	8
Kake.....	Mrs. A. C. Martin.....	do.....	26	71	5
Kasaan.....	Miss Nora Dawson.....	Missouri.....	13	25	7 1/2
Killisnoo.....	Helen C. Moyer.....	Washington.....	24	49	7
Klawock.....	Cora B. Hawk.....	Pennsylvania.....	22	55	7 1/2
Do.....	Verna Mener.....	Ohio.....			
Do.....	Edith Z. Mercer.....	do.....			
Klukwan.....	Nellie M. Taylor.....	Nebraska.....	21	64	7
Klinquan.....	Charles W. Hawkesworth.....	Alaska.....			
Loring.....	Mrs. Leona Goodheart.....	Washington.....	11	22	8
Petersburg.....	Merle J. Gibson.....	do.....	7	36	7 1/2
Raxman.....	A. Charlotte Doren.....	Alaska.....	9	30	7
Shakan.....	Carl A. Swanson.....	Minnesota.....	12	42	7
Sitka.....	Cassie Patton.....	Alaska.....	28	110	8
Do.....	Jeanette H. Wright.....	Washington.....			
Wrangell.....	Mrs. Ida M. Pusey.....	Iowa.....	16	56	7 1/2
Yakutat.....	Elof M. Aranson.....	Illinois.....	17	60	9
Total.....			336	1,060	
Grand total.....			1,805	4,018	

TABLE 1.—*Teachers, school attendance, and length of term, 1911-12.—Continued.*

TRAVELING TEACHERS.

Schools.	Teacher.	Appointed from—	Average daily attendance.	Enrollment.	Length of term in months.
Unalakleet.....	Misha Ivanoff.....	Alaska.....			
Nome.....	Thomas Illayok.....	do.....			

Summary of averages of Table 1, 1911-12.

	Daily attendance per school.	Enrollment per school.
Northwestern district.....	26	53
Upper Yukon district.....	10	29
Southwestern district.....	23	43
Southeastern district.....	19	58
All schools.....	23	50

TABLE 2.—*Comparative statistics, Alaska school service, 1907-1912.*

	1907	1912	Increase.
Schools.....	52	80	28
Superintendents.....	3	4	1
Assistant superintendent.....		1	1
Regular teachers:			
White.....	54	95	41
Native.....	5	12	7
Traveling teachers (natives).....		2	2
Total teachers.....	59	109	50
Nurses and teachers of sanitation.....		8	8
Regular physicians.....		5	5
Superintendent serving also as physician.....		1	1
Contract physicians.....		2	2
Physicians from Public Health Service (on special detail).....		1	1
Total in work pertaining to health.....		18	18
Total number of superintendents, assistant superintendents, physicians, nurses, and teachers under appointment in Alaska.....	62	127	65
Number of unmarried appointees.....		52	
Number of married appointees.....		25	
Number of persons not under appointment who accompanied appointees.....		37	
Total number of field workers.....		164	
School buildings erected, 1907-1912.....			48

TABLE 3.—*Summary of expenditures from the fund for "Education of natives of Alaska 1911-12."*

Appropriation.....	\$200,000.00
Salaries of officials and clerks.....	\$14,180.17
Salaries of superintendents.....	9,680.00
Salaries of teachers.....	86,004.84
Traveling expenses of inspectors, superintendents, and teachers.....	11,403.55
Textbooks, stationery, apparatus, furniture, and industrial supplies.....	18,074.05

Fuel and light.....	\$15,595.20
Local expenses.....	2,018.97
Repairs and rent.....	4,613.83
Erection of buildings.....	10,022.73
Sanitation and medical relief.....	25,144.50
Relief of destitution.....	1,394.95
Expenses of offices.....	1,485.94
Reserved for contingencies.....	381.27
Total.....	\$200,000.00

THE ALASKA REINDEER SERVICE.

The reports from the reindeer stations for the fiscal year ended June 30, 1912, show a total of 38,476 reindeer, distributed among 54 herds. Of the 38,476 reindeer, 24,068, or 62.5 per cent, are owned by 633 natives; 3,776, or 9.8 per cent, are owned by the United States; 4,511, or 11.7 per cent, are owned by missions; and 6,121, or 16 per cent, are owned by Lapps.

At an average value of \$25 per head, the 24,068 reindeer owned by the natives represent a capital of \$601,700. The total income of the natives from the reindeer industry during said fiscal year, exclusive of the value of meat and hides used by the natives themselves, was \$44,885.04.

The reindeer industry affects the entire coastal region from Point Barrow to the Alaska Peninsula—a region approximating in length the distance from Maine to South Carolina. A line connecting the 54 herds would be more than 5,000 miles in length.

There are 633 native owners of reindeer, whose immediate families number approximately 2,500; in addition, approximately 4,000 natives are affected by the reindeer enterprise, obtaining reindeer products in exchange for their own-wares. Accordingly, the total number of natives affected by the reindeer enterprise may be estimated to be about 6,500. Attention is especially invited to the statements included in Tables 9 and 10, which set forth the cost and results of the introduction of reindeer among the natives of Alaska.

There yet remain to be reached by the reindeer industry in Alaska the upper Kuskokwim and the Copper River regions and the coast east of Point Barrow; also Nunivak, Kodiak, and the Aleutian Islands. The establishment of herds in these regions will complete the means for gradually stocking with reindeer all of the untimbered regions of Alaska adapted for that industry.

During August, 1911, 40 reindeer from the herd at Unalakleet were delivered to the Department of Commerce and Labor, 25 were placed on St. Paul Island and 15 on St. George Island. In June, 1912, the reindeer on St. Paul Island had increased to 40 and those on St. George to 25.

TABLE 4.—General statistics of the Alaska reindeer service.

Stations and herds	Established.	Government reindeer.		Mission reindeer.		Lapps.		Natives.											Income from sale of meat, freighting, etc.									
		Total reindeer in herd.	Government reindeer.	Mission reindeer.	Number.	Reindeer owned.	Herders.				Owners.				Apprentices.							Reindeer owned.	Trained.	Being trained.	Mission.	Lapps.	Natives.	Total.
							Herders.		Owners.		Govem. ment.	Mission.	Lapps.	Herders and owners.		Total apprentices.												
							Number.	Reindeer.	Number.	Reindeer.				Number.	Reindeer.		Number.	Reindeer.										
Barrow No. 1	1898	844	75		5	516	13	151	1	6					5	96	6	24	769	37	8				\$3,872	\$1,802	\$3,802	
Barrow No. 2	1899	659			2	318	1	45							3	87	3	6	450	31	6				1,804	1,804	1,804	
Bethel No. 7 (Kivakain)	1901	1,226			4	195	3	13			5	61			1	28	1	1	28	41	10	\$724	\$1,800		1,800	1,800	\$1,800	
Bethel No. 3 (Kivakain)	1912	573		944	3	268	2	7							4	52	4	10	663	41	12				321	321	321	
Bethel No. 4 (Nukluk)	1907	663			6	611																			2,000	2,000	2,000	
Bethel No. 3 (Tunkkuk)	1907	1,578			1	1,578																			2,000	2,000	2,000	
Buckland	1911	690	97		3	601	8	46							3	44	3	14	581	25	8				500	500	500	
Cape Douglas	1911	631			4	470	5	18							3	37	3	12	525	12	2				780	780	780	
Chugaling	1910	312	158		6	388	17	111	1	7		2	36		3	53	5	5	154	15	6				700	700	700	
Connell.	1907	706	149		5	496	14	151							2	12	4	23	693	42	11				4,104	4,104	4,104	
Deering No. 1	1905	850		155	5	496	14	151							2	12	4	23	693	42	11		180		1,148	1,148	1,148	
Deering No. 2 (Good Hope River)	1911	524			3	425	3	20							3	79	3	9	524	15	2				442	442	442	
Egavik	1907	903			1	637	6	681	2	18	2	63	6	132	1	21	3	11	733	40	2		1,190		70	1,260	1,260	
Gambell	1900	903			2	86	16	277							1	30									645	645	645	
Galeville No. 1	1907	1,247	2		2	86	16	277							1	30									750	750	750	
Galeville No. 2	1906	900			2	86	16	277							1	30									1,800	1,800	1,800	
Goksovia	1907	1,060	28		3	247	7	738	1	39					2	12	3	13	1,036	40	19				1,686	1,686	1,686	
Goodnews Bay (Quimbak)	1909	521	308		1	96									5	117	5	6	213	21	3				750	750	750	
Holy Cross	1911	434		434	3	376	4	66			5	41			2	17	2	5	44	6	4				100	100	100	
Hoopers Bay	1912	303	259		3	376	4	66			5	41			2	17	2	5	44	18	3				1,422	1,422	1,422	
Icy Cape	1906	508	51		3	196	12	214			1	4			1	16	1	11	656	31	2				1,424	1,424	1,424	
Igloo No. 1	1907	658	18		6	732	13	100			3	14			1	14	1	22	835	19	11				1,283	1,283	1,283	
Igloo No. 2	1912	658	28		6	732	13	100			3	14			1	14	1	22	835	19	11				1,283	1,283	1,283	
Igloodik	1910	654	28		6	732	13	100			3	14			1	14	1	22	835	19	11				1,283	1,283	1,283	
Igloodik	1910	654	28		6	732	13	100			3	14			1	14	1	22	835	19	11				1,283	1,283	1,283	
Kiamna	1905	471	116		4	288	1	11			2	72			3	14	2	7	351	28	28				540	540	540	
Kinak	1910	423	278		17	17	1	3			5	125			3	5	3	6	145	145	32				426	426	426	

1905	6841	1651	...	...	159	3	61	...	...	73	5	23	519	46	15	583
1909	481	84	...	...	182	5	192	...	...	2	5	27	397	12	4	500
1911	1,327	1	441	...	505	5	147	...	...	5	5	25	952	48	4	1,635
1910	1,327	6	1,327	...	505	5	147	...	...	5	5	25	952	23	5	1,635
1912	1,169	128	...	...	70	5	41	...	...	16	5	5	41	10	2	30
1903	339	266	...	...	184	5	174	...	...	4	4	3	74	10	5	46
1910	485	171	...	...	182	5	174	...	...	16	5	5	74	25	26	1,590
1909	1,613	233	10	...	112	5	154	...	...	16	5	5	74	25	26	1,590
1907	903	6	...	...	136	4	...	...	...	4	6	21	370	21	...	1,775
1905	628	41	...	...	78	4	...	...	...	5	2	15	897	19	5	1,775
1909	1,429	...	...	...	174	3	...	...	...	5	2	15	578	19	5	1,775
1910	443	...	...	...	39	3	...	...	...	4	1	1	445	11	4	2,000
1907	638	174	130	...	111	1	54	...	...	1	1	17	464	22	14	2,000
1907	342	4	...	...	25	5	...	...	...	3	10	209	464	22	14	2,000
1912	316	...	...	...	134	3	...	...	...	4	1	12	315	10	2	400
1905	502	72	...	...	401	6	94	...	...	36	5	16	674	13	8	1,500
1922	934	3	285	...	401	6	94	...	...	36	5	16	674	13	8	1,500
1911	720	122	...	...	111	3	...	...	...	5	4	4	314	18	4	500
1910	246	330	...	...	11	5	116	...	...	5	6	11	118	7	1	500
1910	446	330	...	...	11	5	116	...	...	5	6	11	118	7	1	500
1907	637	187	...	...	25	4	...	...	...	3	11	4	445	12	...	657
1911	630	83	...	...	185	2	12	...	...	34	3	32	843	2	...	1,125
1907	926	83	...	...	458	2	12	...	...	3	3	27	1,091	20	6	1,046
1911	2,181	...	1,060	...	458	2	12	...	...	4	4	27	1,091	20	6	1,046
1903	941	6	14	...	130	3	152	...	...	3	3	24	921	33	5	1,300
Total	38,476	3,776	4,511	14	6,121	141	15,016	331	5,251	72	1,837	30	683	2	58	67	9,904
Total	44,859	60,432			1,281	211	5,049	44,859	60,432								

* No report received; all figures estimated.

* Estimated.

* Included in total.

* By purchase or inheritance.

TABLE 5.—Increase in reindeer service from 1907 to 1912.

	1907	1912		1907	1912
Total natives owning reindeer.....	114	633	Sled reindeer:		
Herders and owners.....	57	472		Trained.....	445	1,281
Government apprentices.....	17	72	Partly trained.....	77	211
Mission apprentices.....	28	30	Income of natives from reindeer.....	\$7,781	\$44,885
Lapp apprentices.....	7	2	Total income from reindeer.....	\$9,563	\$60,432
Herders and owners' apprentices.....	27	57	Percentage of reindeer owned by—		
Total apprentices.....	79	161	Government.....	21.0	9.8
Reindeer owned by natives.....	6,406	24,068	Missions.....	22.0	11.7
			Lapps.....	14.0	16.0
			Natives.....	41.0	62.5

TABLE 6.—Number of reindeer belonging to each class of owners in 1911-12.

Owners.	Number of reindeer.		Increase or decrease.		Per cent owned.	
	1911	1912	Number.	Per cent.	1911	1912
Government.....	3,051	3,776	- 175	- 4	11	9.8
Missions.....	4,063	4,511	- 152	- 3	14	11.7
Lapps.....	4,944	6,121	+1,177	+24	15	16.0
Natives.....	20,071	21,068	+3,997	+20	60	62.5
Total.....	33,029	38,476	+4,847	+14		

TABLE 7.—Annual increase and decrease of reindeer.

Years.	Balance from previous year.	Fawns surviving.	Imported from Siberia.	Butchered or died.	Total in herd June 30.	Per cent of annual increase.	
						By fawns.	Net (since importation ceased).
1892.....			171	28	143		
1893.....	143	79	124	23	323	55	
1894.....	323	145	120	98	492	45	
1895.....	492	276	123	148	743	56	
1896.....	743	357		100	1,000	48	
1897.....	1,000	466		134	1,132	40	
1898.....	1,132	625	161	185	1,733	65	
1899.....	1,733	638	322	290	2,394	37	
1900.....	2,394	796	29	487	2,692	32	
1901.....	2,692	1,110	200	538	3,464	41	
1902.....	3,464	1,664	30	353	4,795	48	
1903.....	4,795	1,877		390	6,292	39	31
1904.....	6,292	2,394		377	6,169	36	30
1905.....	6,169	2,978		925	10,241	36	25
1906.....	10,241	3,717		1,130	12,828	36	25
1907.....	12,828	4,619		1,508	16,839	35	21
1908.....	15,819	5,416		1,933	19,322	34	21
1909.....	19,322	6,437		2,844	22,915	33	18
1910.....	22,915	7,339		3,829	27,325	32	19
1911.....	27,325	9,496		4,192	33,629	36	23
1912.....	33,629	11,254		6,407	38,476	33	14
Total.....		61,323	1,280	24,127		41	23

1 246 killed in Barrow relief expedition.
 2 Some of the figures which make up these totals are estimated.
 3 Average.

THE ALASKA REINDEER SERVICE.

TABLE 8.—Expenditure of appropriation "Reindeer for Alaska, 1912."

Appropriation.....	\$12,000.00
Salaries of chief herders.....	\$520.00
Support of apprentices.....	9,931.76
Establishment of new herds.....	675.00
Reserved for contingencies.....	873.24
Total.....	12,000.00

TABLE 9.—Showing cost and results of introduction of reindeer in Alaska.

	First ten years (1893-1902)	Next five years (1903-1907)	Last five years (1908-1912)	Total
Appropriations.....	\$133,000	\$99,000	\$60,000	\$292,000
Number of herds established.....	9	7	38	54
Number of natives owning reindeer.....	68	56	419	553
Average cost per native apprentice.....	\$2,000	\$1,800	\$143	\$475
Net number of reindeer received by natives.....	2,841	3,565	17,662	24,068
Valuation of same.....	\$71,025	\$80,125	\$441,550	\$601,700
Income received by natives.....	\$4,500	\$5,500	\$132,510	\$142,510
Number of Government reindeer at end of period.....	2,247	4,684	3,776	10,707
Valuation of same.....	\$56,175	\$117,200	\$94,400	\$267,775

TABLE 10.—Showing wealth produced by introduction of reindeer in Alaska.

Valuation of 24,068 reindeer owned by natives in 1912, at \$25 each.....	\$601,700
Total income of natives from reindeer, 1893-1912.....	142,510
Valuation of 14,408 reindeer owned by missions, Laplanders, and Government, 1912.....	360,200
Total income of missions and Laplanders from reindeer, 1893-1912.....	57,650
Total valuation and income.....	1,162,060
Total Government appropriations, 1893-1912.....	292,000
Gain (298 per cent).....	870,000

TABLE 11.—Reindeer loaned and transferred to missions and Laplanders.

Station or individual.	Number loaned.	When loaned.	Expiration of loan.
Bahr, O. O. (Unalakleet).....	100	July 1, 1901	June 30, 1901
Bals, N. P. (Eaton).....	100	Mar. —, 1903	Mar. —, 1911
Bals, P. N. (Eaton).....	100	Mar. —, 1906	Mar. —, 1911
Bango, I. (Tanana).....	100	Mar. —, 1906	Mar. —, 1911
Bango, I. (Tanana).....	175	Feb. 26, 1901	Feb. 26, 1906
Bethel (Moravian).....	100	Jan. 18, 1905	Jan. 18, 1910
Deering (Friends).....	50	Jan. 16, 1896	Jan. 16, 1899
Golofmin (Swedish Evangelical).....	100	July 1, 1902	June 30, 1907
Klamsteen, N. (Golofmin).....	95	Sept. 2, 1901	Sept. 2, 1906
Kotzebue (Friends).....	99	July —, 1901	June 30, 1906
Nulato (Roman Catholic).....	100	Mar. —, 1901	Mar. —, 1906
Sara, N. P. (Bethel).....	100	July —, 1901	June 30, 1906
Sinuk (Methodist).....	100	Oct. 29, 1907	Transfer.
Do.....	49	Jan. 27, 1910	Do.
Spain, P. M. (Bethel).....	100	July —, 1901	June 30, 1906
Tanana (Episcopal).....	100	Mar. —, 1906	Mar. —, 1911
Teller (Norwegian Lutheran).....	100	Sept. 1, 1900	Sept. 1, 1905
Unalakleet (Swedish Evangelical).....	140	July 1, 1903	June 30, 1908
Wales (Congregational).....	118	Aug. —, 1894	Transfer.

In December, 1905, the herd at Nuiato was transferred to the Roman Catholic mission at Koserefsky, and in 1908 from Koserefsky to Mountain Village, where it was cared for temporarily by the Government in connection with the Government herd at that station. In December, 1911, the herd was returned to Koserefsky from Mountain Village.

All of which is respectfully submitted.

W. T. Lopp,
Chief of Alaska Division.

The COMMISSIONER OF EDUCATION.

PART II. DETAILED REPORTS.

The purpose of Part II is to give to the public, to those engaged in the service of the Bureau of Education in the various regions of Alaska, and to others desiring such employment, detailed information regarding the work of the Bureau of Education among the natives of Alaska.

Section I contains the annual reports of six of the teachers in widely-separated parts of Alaska, illustrating the broad, practical character of the work, and setting forth the various duties performed by teachers in the Alaska school service.

Section II relates to the medical work among the natives, and contains (1) the report of Dr. Emil Krulish, of the Public Health Service, on health conditions among the natives; (2) the report of Dr. P. J. Mahone, on the United States hospital for natives at Juneau; and (3) the report of Dr. B. H. Brown, physician, assigned to the lower Yukon district.

SECTION I.--REPORTS BY TEACHERS.

ANNUAL REPORT OF THE UNITED STATES PUBLIC SCHOOL AT AKIAK. A REMOTE VILLAGE ON THE KUSKOKWIM RIVER, HITHERTO WITHOUT A SCHOOL.

By JOHN H. KILBUCK, Teacher.

On the evening of July 5, 1911, the *P. J. Abler*, with the teachers for Akiak on board, slowly steamed past the fishing camp about 3 miles below the village of Akiak, and the pilot, David Hawk Skuviuk, called out to the men to come up and help unload the ship. There were shouts from the shore; in a twinkling canoes were launched and forthwith a chase ensued, wherein the *Abler* had to burn more oil to keep ahead of the pursuers. At 6.10, according to the ship's time, Akiak was reached, and as the water was high the vessel anchored close under the bank, ending her voyage of 24 days from Seattle with all on board in high spirits. In a few minutes I was ashore and was heartily welcomed by the natives, who had arrived almost as soon as we did. Accompanied by Kawagleg, the local chief, I at once looked over the ground. A site was selected at the lower end of the village, on ground that had hardly been covered by the last spring freshet, which was reported to have the record for high water.

The next day the ship was discharged of her freight, and at 3.30 everything was ashore. In a short time we wished our late shipmates a safe and pleasant homeward voyage, and then turned to our work.

We found our stores and supplies in good shape, and in order to keep them so I had bought a large sail from Capt. Born, with which to protect them against the weather, pending the completion of the school building. One of the natives placed at our disposal his two-room cabin; this we made our home until the schoolhouse was finished. Other natives gave us the use of their cabins, in which to store some of our perishable provisions.

The fishing season was not over yet; so for some time we had but little help from the natives. Mr. Hansen, the carpenter, began his work at once, while I, single-handed, cleared the schoolhouse site and grounds of timber and dug the foundation. Our task was rendered extremely difficult by the mosquitoes that swarmed down upon us. The house was finished August 28. It is a neat structure and is the first of its kind on this river. Everyone who has seen it admires it.

When we arrived at Akiak there were 5 log cabins altogether above the ground, 2 cabins partially under the ground, and 4 of the old-fashioned igloos; 11 habitations, occupied by 19 families. After the fishing season was over the natives returned to the home village. The attractive appearance of the schoolhouse appears to have prompted the desire for improvement; many began to work, some renovating their cabins and others building new ones. As each cabin neared completion, a few pieces of scrap lumber were furnished by the teacher in charge for the natives to use in making window and door frames and doors. A little red paint was also given for finishing. When a cabin was ready for occupancy, Mrs. Kilbuck hung a curtain over each window. After the first cabin was thus furnished, a building boom followed. Every head of a family who was able to work went to work on a cabin. The men had to go out and get a raft of logs before any building could be done, and then they worked like beavers. When cold weather set in there were 6 new cabins, the 2 that were partly under ground had been rebuilt on top of the ground, and 3 of the old cabins were remodeled. Akiak now consists of 13 cabins above ground, 1 cabin partly under ground, and 3 igloos; altogether 17 habitations, that house 90 people.

A few days after landing some ground was spaded up, which, after being prepared, was sown to radishes, lettuce, and turnips. The natives were skeptical about the garden producing anything, but when the seeds sprouted one man spaded up a small bed and worked faithfully to get the ground in fine shape. This bed was sown to radishes. Everything did well, and our table was furnished with choice radishes and crisp lettuce. The native was also duly rewarded for his venture by messes of radishes. The turnips did not do so well, for the rabbits ate the tops. The school children got what the rabbits left. This success with the first experiment in gardening resulted in a general desire to learn how to grow vegetables. Six householders fenced in plats of their own and spaded up the soil. About a quarter of an acre next to the schoolhouse was cleared of timber, the stumps and roots were grubbed out, and about half of it spaded. The school children were put to work in this garden, as well as in cleaning up around the schoolhouse, burning the brush, old logs, and rubbish. Including the school garden, there are now 10 gardens, which together would cover about three-fourths of an acre. Cabbage, cauliflower, potatoes, turnips, rutabagas, peas, beans, red beets, onions, celery, rhubarb, spinach, radishes, and lettuce constitute our crops. We are short on seed potatoes, but we hope to raise enough to make this the main crop for the natives next year. We obtained a few pounds of native potatoes from Bethel. On account of the infection of the imported potato with some kind of a worm or bug, we did not plant them. If the gardens produce a good crop this year, the natives will undoubtedly take up gardening in earnest. We have furnished seeds to natives in other villages, as well as to miners.

Classroom work was taken up October 9 and continued until the end of March, when, owing to an attack of the grippe, I was laid up for a week. By that time the people had moved to the mountains for the spring trapping of squirrels.

The schoolroom has a seating capacity of 28, while I often had more than 40 in attendance. The total enrollment for the year was 47, and 129 days were taught, with an average attendance of 29.66. Two pupils had to be put where there should be only one. The children were naturally quiet and well-behaved, otherwise this doubling up would not have worked out as well as it did. The majority of the pupils were of kindergarten grade, only a few having ever been in a school before. From the beginning to the end of the school term there was no disposition manifest to shirk in attendance or application. Whenever the bell rang every child came on the run, and even the 2 and 3 year olds would slip away from their mothers and come toddling toward the schoolhouse. The branches taught were reading, arithmetic and numbers, writing, spelling, geography, and English. Most of the time was devoted to instruction in English, oral and written. Some of the pupils who had attended school at Bethel could read well, but were deficient in composition and arithmetic. Writing from dictation was also a part of each day's work. The children all showed special aptitude for writing, and some of them improved surprisingly fast. In number work the toy money was one of our best aids in compelling interest. The natives of Akiak had never had any use for numbers except in mere counting. It was therefore rather difficult to arouse any interest in arithmetic. The manner of life has, however, so changed on this river that the people now recognize the need of being familiar with the processes of addition, subtraction, multiplication, and division, especially with reference to money. With the toy money the more advanced pupils got as far as adding up a bill of groceries, and some could make out a bill when the unit price of each item was given. All the larger girls had a course in sewing and general housework. They also did the sweeping, dusting, and tidying of the schoolroom every day, and scrubbing it every week, except in very cold weather. The boys looked after the wood box, keeping wood on hand and shavings for starting the fires. On account of the limited space, we did not attempt physical exercises. On a number of occasions, when the scholars were restless, I took the whole school out of doors and had them run a race down to the river bank and back into the schoolroom. The children then would settle down and do good work for the rest of the session. The schoolroom, though small, is well ventilated, and there was no trouble about keeping the air pure.

In village work our endeavor has been to identify ourselves with the people, taking part in anything that affects their welfare. We visit them in their homes as neighbors, much in the same way as they visit each other. In these visits we never criticize the way they keep house or their personal appearance, but we treat them with the same respect we would a neighbor in the States. We always remember that we are guests, and they are the hosts. Official talks were given in the schoolroom. All the people gathered regularly on Friday evenings. The time at each meeting was devoted to music from a graphonola and a short talk on sanitation, or some other topic of general welfare. Our home has always been open; the people have been made to feel welcome to come and visit us. Our home has been used as a classroom for teaching sewing and bread making. It is noteworthy that our neighbors have been very thoughtful, and we never felt that we were imposed upon. Even the small children behaved well, and we were never alarmed about their spoiling anything or bringing dirt into the house. The results we have noticed are these: More soap is being used; more people wear clean garments; more people bathe regularly once a week; the air in most of the cabins is pure; the floors are scrubbed weekly and are less cluttered up; every fair day we see bedding flapping in the wind, and socially the people say they have never lived together so harmoniously.

One of the features of the Thanksgiving Day celebration was the taking up of a collection for the poor. This is a custom inaugurated soon after the people became Christianized. The contributions amounted, in money value, to about \$42, of which \$20 was distributed to a number of widows and the balance is still in the keeping of the teacher in trust.

There are 90 souls in the village of Akiak, distributed according to age and condition as follows: eight old people, i. e., 50 years and over, 3 of whom are widows more or less dependent; 16 couples and 1 widow of middle age; 4 unmarried young men, and 46 minors. The entire village is Christianized, all of the people being church members, the majority belonging to the Moravian mission and the rest to the Greek Catholic Church. This village was among the first to adopt Christianity. Drunkenness is unknown, and there is a unanimous desire to keep liquor and white men out of the village. Four of our young men are employed as chief herders, three by the Government and one by the mission. Six families are in close touch with the reindeer industry through a son who is either a herder or an apprentice and through a daughter married to a deer man. One man has become an owner of deer by investing in two female deer his earnings of the past winter as a trader. Fishing and trapping are the principal means of support. The opportunity to earn flour, tea, and sugar right at home this past year by work on the schoolhouse and the sale of wood has been a great boon to the village. We have learned to know the people more intimately, and we find them to be industrious, tractable, and hospitable.

CONDITIONS AMONG THE NATIVES IN VILLAGES ON THE KUSKOKWIM ABOVE AKIAK.

In my trip from Akiak to Sliimiut I was impressed with the fact that the native population has decreased at least 50 per cent since 1900. This was caused by the epidemic of measles and pneumonia in 1900 and later by la grippe and diphtheria. The population now consists of the young generation—like the second growth of timber—with here and there a middle-aged person. I think the average age of the children would be about 6 or 7 years. The people in general appeared far from robust, although I met with no actual sickness.

The population is scattered along the river, from a family or two to a collection of five or six huts. Villages that were once populous are now either wholly abandoned or inhabited by 25 or 30 persons at most.

The old-fashioned igloos have almost altogether given place to the log cabins, some having two rooms, and all provided with stoves. The people appear to be better dressed than formerly, but there is much to be taught in personal cleanliness. I was surprised to find so many English-speaking individuals. There is a strong desire for schools and for reindeer among these people. When I explained the Government's desire to help them to learn how to live better, in order to make them healthier and longer-lived and how to make a living, their faces showed the encouragement they felt. In general, the natives welcome the idea of schools and clamor for the domesticated reindeer, and this attitude of the natives has the support of the white population now in the country. I find that the feeling here is in favor of the Indian. There is even a real feeling of pride in the aptitude of the native to make the best of his present conditions and surroundings. Among the natives there is a very evident desire to keep away from the white men. They wish to live by themselves, and they would like to have the whites do the same.

ANNUAL REPORT OF THE UNITED STATES PUBLIC SCHOOL AT SHISH-MAREF, AN ESKIMO VILLAGE NORTH OF BERING STRAIT.

By Mr. and Mrs. GEORGE B. HEFLER, Teachers.

The principle which we have been trying to inculcate during the entire year is ambition. The children were so content to "let well enough alone" that it was next to impossible to lift them from the rut. At first we could not understand such utter listlessness in the classroom, such appalling unconcern as to progress. But when we came to understand the Eskimos better we felt that the whole thing reverted to the

old problem of heredity and environment. Heredity seems to have predominated here in Shishmaref, but it is certainly time for civilization to step in and create an environment that will gradually wean the children away from the ancestral habits. Of course that is only possible here through the school environment, as the home environment of the children is practically the same as it was generations ago.

These people are essentially materialists. They desire education only for its material advantages. Remembering this, we have tried to show them the actual benefits, physical, economic, and moral, that are the results of education.

Reading.—One of the most urgent needs in the school work here is a textbook easily understood by the Eskimo children. The textbooks provided, although admirable from a white child's standpoint, treat of subjects utterly foreign to an Eskimo child's comprehension. What is needed is a book treating of Eskimo life and familiar objects, written for the Eskimos, not about them. We tried to fill this need temporarily with a homemade Eskimo primer for the three little boys who were starting school for the first time. This book was written in ink in the blank books, and illustrated with pen and ink sketches. The reading lessons dealt with subjects of everyday life here, such as hunting the seal, walrus, ptarmigan, ducks, and geese, driving reindeer and dogs, and catching fish, described in terms of common use. The children learned to speak English as well as to read it, two things by no means the same as one.

Arithmetic.—Many people say the Eskimo has a receptive, but not an analytical, mind; that he can easily learn the abstract functions of arithmetic, but can not apply them to concrete problems. This was our first impression. We found later, however, that it was not so much the principle they failed to grasp as it was the English. They seemed to find no difficulty in solving a problem given in simple English about familiar things. The older children covered addition, subtraction, multiplication, and division, and were able to solve simply worded problems involving one or more of these principles. For instance, a problem might involve the cost of a certain number of sacks of flour in Seattle and take up also the cost of the freight to Shishmaref, together with the selling price per sack of the flour here, in order that a certain profit might be made. We found the boys especially eager in this work. One boy could do almost any problem set before him.

Industrial work.—The great aim of the United States public schools in Alaska is to help the natives help themselves. There is no better way to do this than by instruction in the manual and domestic arts. If we teach them the use of tools, they are then better prepared to build and maintain homes; and if we teach them domestic science, the home can be kept more healthful and pleasant. Aside from this, a completed model, a neatly sewed dress, or a batch of well-browned bread can not fail to arouse something of the creative joy, a satisfaction in a task well done.

Household arts.—There were but 7 girls in the school big enough to learn to make bread, biscuit, etc., and 1 of these went away for two months with her family. All these girls learned to make bread and biscuit.

Sewing.—In the wreck of the *Redfield* the Government supply of sewing materials was lost. As there is no store nearer than 60 miles, and as the prices were very high, we were handicapped for materials. The older girls made dresses for most of the babies in the village. There is a noticeable difference here between the children of those who have gone to school and the children of the women who cling to the customs of the older generation. The girls who had been to school seem to take great delight in making little garments for the babies, while the older women look upon it as a waste of time.

Laundry work.—All the girls and most of the boys were taught to wash clothing, bedding, and household linen. Every Saturday the schoolhouse was reserved for their use, and so many were desirous of washing that the number had to be limited to eight at a time. After awhile the spirit of cleanliness so imbued them that they not only washed their own clothing, but also that of their younger brothers and sisters.

Visitors.—Many parents visited the school and showed their delight at the progress of the children in learning to talk English and in doing useful things. The quickest way to reach the hearts of these Eskimos is to teach the little children and let the parents see that you love the children and want to help them. The older people responded splendidly whenever asked to cooperate in any matter that concerned the little ones.

Medical work.—We have tried to show the natives that cleanliness is the enemy of sickness and that filth is a breeder of disease. A baby suffering from some form of skin disease proved a useful object lesson. The baby came from a dirty home of the old type, and its mother was of the old régime that knew not the virtues of soap and water. It is difficult to imagine a more distressing object than that baby when its mother brought it over for treatment. Its arms, legs, and body were covered with immense scabs, and when she removed the little fur bonnet its head was seen to be in similar condition. It was given a thorough bath in warm water and hydrogen peroxide. The mother thought the hydrogen peroxide was "plenty strong medicine" when she saw the white fuzz spout up wherever it touched the child's body. We impressed very strongly upon the mother that the filthy rags that clothed the baby must not be put on, and when she said she had no others we told her she must make some or the baby would never get well. Mrs. Hefer made the baby some underclothes and a bonnet, while the baby's older sister made the baby a dress in sewing period in school. The baby was inspected thoroughly and washed every day, and we saw to it that the clothes were kept clean. After repeated applications of hydrogen peroxide, blue ointment, and soap and water the baby became well. Whereas before she had been a sickly, crying baby, to-day the child is well, strong, and happy, and, above all, clean. That the mother was sufficiently impressed with the importance of cleanliness was shown in the fact that her only subsequent request was for soap to keep the baby and its clothes clean, so it would be "no sick." This case made quite a stir in the village, and the mothers kept the babies much cleaner than before. The children would come to me with cuts and ask for the "clean medicine."

**ANNUAL REPORT OF THE UNITED STATES PUBLIC SCHOOL AT WALES,
AN ESKIMO VILLAGE NEAR CAPE PRINCE OF WALES, ON BERING
STRAIT.**

By Miss MATTIE CALDWELL, Teacher.

Truant officer.—Our school opened October 2, 1911, with an enrollment of 34. The number increased as the people returned from Nome and Kotzebue, where they had spent part of the summer trading, until we reached an enrollment of 64. The average attendance for the year was 50+. This per cent of attendance on enrollment was due in large measure to the faithful services of our native truant officer, and perhaps his success was due to the manner in which he was chosen. The men of the village met and discussed the need of such an officer, one of their number acting as chairman. The result of this meeting was the appointment of a committee of five whose business it was to select a man for the office. This the committee did in due time. In these meetings the teacher took part only as a "lay member." So completely was the matter left to the men of the village that they felt they must cooperate with the man they had chosen in the fulfillment of his duties. Most of the absences that occurred were due to sickness or necessary work.

Schoolroom work.—We are endeavoring to work out a grade system suited to local needs. At present our school comprises six grades: Kindergarten, beginners (using chart and primer), first, second, third, and fifth grades. Next year, according to present system, a fourth grade and a sixth grade will be added.

We have made instruction in English the basis of all of our work, teaching language "in season and out of season," by story and song, conversation and memory work, and by the reading of many books. Elementary arithmetic is dealt with in a practical way. Much work is done involving the handling of toy money, buying and selling from a "toy store," and the making of bills such as are necessary in everyday business transactions. We consider it more important that a boy learn how many gunnies of flour at \$4.95 he should receive for 3 fox skins at \$6.35 each, and 55 fox skins at 17½ cents each, or that a girl know how many yards of calico at 12½ cents she should receive for one pair of mukluks at \$2, than that he or she should be able to solve problem 83, page 143, of somebody's arithmetic.

History and geography were taught as much for the conversation they afforded as for their content.

Physiology was taught largely by means of chart and drawings. Temperance was emphasized and sanitation and hygiene were taught and demonstrated to some extent in the school. Eskimo children write well and draw well; their copy books would compare favorably with those of white children of similar age and grade. Special attention was given to letter writing among the older pupils.

We find all the boys and girls exceedingly fond of music. They have very "quick ears," but are not accurate in sustaining pitch; their voices are inclined to become "flat." The children of the lower grades have been taught many action songs, and they delight in singing them. They sing these songs at play and in the homes until the mothers and babes may be heard chanting the words of Little Bo Peep or Bow-Wow-Wow. They understand the tune, if not the words.

Note reading in the nine common keys was taught in 1910-11. This was followed by the learning of many new songs this year. Most of the girls sing soprano. The younger boys sing alto, and a few of the older boys have developed bass voices. We had choir rehearsal each Wednesday evening for the following Sunday services. This was a very material help to our school music.

Two school entertainments were given during the year; these were products of the English and music classes. While the exercises were simple, they showed creditable effort and some ability on the part of the children. Stage fright is practically an unknown quantity. The first program was given just before the Christmas holidays and a "tree" was one of the features. The second was given in April just before the large boys were excused to go walrus hunting. Most of the numbers were drills or songs. We need more books of easy dialogues and drills in our library at Walce. Material of this kind is very scarce. A set of books containing simple quartets and college songs would also be helpful.

We classified and numbered our books, appointed a librarian, and lent during the year 100 books. One boy borrowed and read 12 books. More books would be read if we only had them. A circulating library would be a good thing for the district. A case of books might remain at one place a year, then be sent to the next school the following year. In this circulating library might be included instructive games and other things to entertain and instruct the boys and girls. Sets of pictures could be used to great advantage.

Carpentry.—This branch of work has been in the hands of the native assistant, who has done exceedingly well, considering the materials he has had. His work with the 16 older boys includes the making of the following articles: One table, two benches, one settee, and an armchair. These constitute a child's set. Measurements and drawings were first made, then the pieces were constructed according to drawings. Doll chairs, window boxes, a nail box, coal bin, shelves, and other useful things were made.

In addition to this constructive work, the class kept the school building in repair, replacing broken windowpanes, mending doors, making ventilators, etc. We thought it just as important that they learn the care of public property as that they learn

the use of tools. We hope to carry this community work further next year by means of our city school government, which Mr. Hamilton, of Diomed Island, assisted us in organizing.

Sewing.—There were 8 girls in the class in sewing, and they did very good work. A few articles were made for general use from material belonging to the school, but the most important work was the making of 16 dresses for the 8 girls. They had hardly known the pleasure of owning a dress before.

Every piece of calico had been made into a parka, and it seemed to matter little what was under that. Last year we made gingham aprons from school material, and that gave an idea of the comfort and desirability of such garments. This year it was with much hesitancy that we requested the girls to ask their mothers for material for dresses. The people have so little money that it seemed asking a great deal. In response only one girl brought sufficient calico for a dress. Three others brought remnants ranging from 2 to 4 yards; this, with two or three old garments, was all the girls brought. I found a few old garments of my own, which we altered and used for the girls. When my supply was exhausted, I appealed to Mrs. Thompson, the missionary's wife, and she sent two partly worn wool skirts, which we made into jumpers for the last two. But one dress will not last forever, and as the time for our performance drew near, the girls were again requested to bring material for dresses. Not one failed this time. All were brightly arrayed in new calico or gingham commencement dresses. Caps, aprons, and sleeve protectors were made for the cooking class, also samplers, showing basting, hemming, backstitch, buttonhole, featherstitch, patching, and darning. In addition to this, the girls made 12 garments for Mrs. Thompson. Several of the young women who were not in school were assisted in making dresses.

Cooking.—Bread making and the cooking of native meats were the principal things taught in the kitchen. The making of seal-oil soap was demonstrated. Notebooks were kept in which were simple rules for care of the kitchen and for dish washing; recipes for bread making; cooking of cereals, meats, and fish. Notes were made also on the feeding of babies and the care of nursing bottles.

Personal hygiene.—It is difficult to say how much has been accomplished regarding personal cleanliness. Much attention was given to the subject. Kerosene, gasoline, and fine combs were used on the heads of the school children. Baths were given, and some of the boys were required to remain after school and wash their parka with soap and hot water. At one time during the winter a "protracted effort" lasting a week was made for the purpose of ridding the village of vermin. The insect population was greatly decreased. No doubt something has really been accomplished in this direction, though to a stranger visiting the village just at this time it might appear doubtful. The snow is melting; there are pools of water everywhere and sand between them. The children play in sand and water all day and all night, and the worst of it is that soap is very scarce now.

Village work.—There are many things to encourage the worker in our village, however. A marked improvement may be seen in the homes, the clothing, and the care of children among many of the younger women who have had the advantage of attending school and of observing the white man's way of living. Only one frame house has been built this year. There is no timber in this region, and few can afford to buy lumber. Disposal of garbage in winter is an unsolved problem; in summer the village is given one general cleaning.

One thing that is greatly needed at Wales is cold storage for preserving walrus meat. The present system is very bad. The meat is buried in holes in the ground in the month of June, and by the time it is needed for food it is greatly decomposed. With the idea of remedying this condition, two shafts were sunk during the fall, each 8 or 10 feet deep. It was thought that by digging down 12 or 15 feet the ground would be found sufficiently frozen to furnish an excellent cold storage. Work of this kind

progresses slowly. The older people are not inclined to change their customs, and the community spirit is not well developed. But a beginning has been made, and we are hopeful that the work may be completed.

A report of the sanitary condition of the village would be incomplete should we fail to mention the excellent work of Dr. C. A. Thompson, medical missionary. The people are slow to appreciate the services of a physician, but results this year have been gratifying. There have been 14 births in the village since September 1 and only 4 deaths. The Eskimos are passionately fond of their children. They have learned by sad experience that their methods of treatment often fail, and they are becoming more disposed to call upon the doctor for help. This is greatly reducing infant mortality.

Moral conditions generally are not bad. There is no drinking, no prostitution, and practically no stealing. On the whole, our people are a peaceable, law-abiding lot. Only one man was arrested during the year—a record that could probably not be surpassed by a white village of similar size. Some of the social practices among the Eskimos are not in accord with our standards, but these I would call unmoral rather than immoral. The great majority live mainly by hunting and fishing. A small amount of trading is done, but skins are not plentiful. Only a few depend directly upon their reindeer herds for a livelihood.

ANNUAL REPORT OF THE UNITED STATES PUBLIC SCHOOL AT KENAI, IN SOUTHWESTERN ALASKA.

By Miss W. E. DOLAN and Miss A. M. DOLAN, teachers.

Sewing.—Two hours a day were devoted to this work by 10 of the school girls; also, an evening class of 7 adult women was given instruction in sewing twice a week during the months of January, February, March, and a part of April. The classes were taught to cut out, fit, and sew by hand. Instruction in embroidery was given, in addition to plain sewing. The women were encouraged to come for suggestions and help in the making of their clothes at any other time. Many took advantage of this privilege. The following articles were made by the pupils and given as rewards for good work: Petticoats, shirts, aprons (colored and white), plain dresses, embroidered towels, fancy embroidered bags for Christmas presents, embroidered collars, jabots, and doilies. The very small children made doll clothes. Great encouragement was felt from results as shown in neatness and general improved appearance of the native women.

Cooking.—Cooking classes were held once a week for the school girls. Night classes of two hours were held during January, February, March, and part of April once a week for the adult women. The object was to teach them cleanliness and neatness in cooking. They were taught to make bread, baking-powder biscuits, corn-meal cake, pies, plain cakes, chocolate cake, coconut cake, tea, and coffee, and salads from ingredients available in the region. Many of the natives have been living entirely on fish and moose meat, and therefore this work in cooking is answering a real need in helping to diversify the diet.

Agriculture.—In the early spring enthusiasm was aroused by talks about the preparation of hotbeds for cabbage and other vegetables. The seeds sent from Sitka were distributed. The pupils were taught how to prepare the soil and plant the seeds. The natives of the village were also encouraged to plant flowers and to improve their yards. The natives raise potatoes and the hardier vegetables. These they can use in preparing their meats, upon which they chiefly live.

Village work.—Periodic visits were made to the homes of the natives to instruct them in the care and cleanliness of their homes and persons and to cause them to

ventilate and air their houses. The pupils were kept looking clean and neat and freed from vermin by use of combs and creosote. The natives have constructed "bonyas"—steam houses for bathing purposes. We insisted on weekly baths. If a child was not clean, he was sent home to be washed. Only two such cases were necessary during the year. Sputum cups for home use were made from tin cans and sawdust to prevent the spreading of disease germs. Pupils were strictly forbidden to spit around school grounds and in school and the reason explained. Seven new and improved houses were erected in the village during the year.

The natives were taught to wash clothes and to scrub. Sand was used in the cleaning of floors; but the natives labored under difficulties, as there was a shortage of soap at the store. The only soap obtainable was tar soap, at 15 cents a box, it was surprising how they kept so clean with this handicap. The Ivory soap provided for school use was kept for bathing the babies.

The natives were instructed to dispose of garbage at a common dumping ground. Considerable interest was aroused in cleaning yards, and instruction was given in draining yards by ditches to dispose of surface water. Seeds were distributed as a reward for clean grounds and encouraging the work. The school grounds were cleaned by teachers and pupils as an example. The sanitary conditions in the village are generally improved.

ANNUAL REPORT OF THE UNITED STATES PUBLIC SCHOOL AT KLAWOCK, IN SOUTHEASTERN ALASKA.

By Miss EDITH Z. MERCER, teacher.

General conditions.—This has been a successful year for the natives at Klawock. Financially they have prospered. Destitution has been unknown. Although their summer earnings were sufficient to afford a comfortable living for themselves and their families throughout the winter, the men have worked most of the time, except during the holiday season. Quite a number of families are realizing the value of money and are trying to save some each year. As a result of the influence and example of the missionaries here, and of the efforts of former teachers, the native huts are being replaced by large, well-built, and well-ventilated houses. There are no more communal houses in this village. The newly built houses are mostly two stories, and are well painted inside and out. Five new houses have been completed this spring. The natives have built their own houses and made most of the furnishings themselves. They make shelves, cupboards with drawers, tables, and other essentials for household equipment. Nearly every family has its own gasoline launch, made by the owners themselves.

Manual training.—The boys in school show considerable skill in the use of manual-training tools. They enjoy the work thoroughly. This year they made miniature cars, boats and canoes, boxes, and a round dining-room table for the teacher's cottage. The table is a neat and creditable piece of work. Whatever they make in school they usually reproduce for their home use.

Sewing.—Great interest has been manifested in the sewing lessons. The girls are always anxious for sewing day. They show remarkable skill with a needle, and even excel white children in this work. The girls made dresses, handkerchiefs, skirts, aprons, pillow tops, and stand covers. Almost every woman has a sewing machine and sews for herself and her family. The young women often come to us with linen, etc., and ask to be taught embroidery, drawn work, or whatever fancy work they see us doing. We thought it a good plan to start a sewing circle for all women who were interested in this line of work.

Village conditions.—In every home there is evidence of thrift. The women do very well at keeping house. Every housewife in Klawock knows how to clean her dwelling.

and there are few houses that do not show an effort at cleanliness and neatness. The floors are scrubbed at least once a week in most of the homes. In many of the houses there is a regular cleaning in the spring. Since spring has come a number of the natives have cleaned their dooryards. Some have turned them into gardens and planted vegetables and strawberry plants; others have made flower beds and planted flower seeds. They have been taught to keep all garbage out of their dooryards, and are learning to burn refuse or carry it to the beach to be washed away with the tide.

EXTRACTS FROM THE REPORT OF MISS ISABELLE S. THURSBY, INDUSTRIAL TEACHER AT DOUGLAS, IN SOUTHEASTERN ALASKA.

The Indians of Alaska are a hardy and industrious race, suffering only from a too sudden contact with civilization, from their inability to adjust themselves altogether to our civilization on short notice, without help. We hear now and then of importing hardy Scandinavians to people Alaska, but we have in the natives of Alaska a people just as hardy as the Scandinavians, and with a little care and teaching they will be as healthy under the new conditions. All we need to do or can do for them is to help them bridge the chasm from barbarism to civilization. The task could almost be accomplished in a generation if intelligently attempted with sufficient funds, and it is a task which should appeal to the sense of justice and the generous impulses of the people of the Nation.

One reason why the Indian had so large a part in the early history of Alaska was the scarcity of white men. Now, however, the demand for labor is no longer so great, and it is the native laborer who has suffered most from the competition. For instance, until two or three years ago the demand for laborers at the great Treadwell mine at Douglas exceeded the supply. Employment was given to nearly every able-bodied Indian who applied. Indeed, a few years ago, it was no unusual thing for the superintendent of the mine to go through the village, begging for workers. At the same time, there was employment for every white man who could be secured. But more and more workmen came from the States, since there was always employment at comparatively good wages, and at present, out of 2,000 employees, only 5 are natives. More or less, the condition here indicated obtains all over southeastern Alaska, preference in employment as a general rule, except at some of the canneries, being given to members of the white race; and in southeastern Alaska, as a general rule, the supply of the latter equals, where it does not exceed, the demand.

The preference for white labor is by no means a matter of sentiment. The white race has for generations known the relation of master and servant. The working class has learned the knack of persistent toil, and the workers have become inured to the monotony of employment brought about by the division of labor. Not so with the Indian. Fully as industrious as the white man, he insists upon variety in his employment; he has not yet learned that fear of losing his job which enables the employer to count with a greater or less degree of certainty upon the steadiness of the white worker.

For these reasons the necessity for emphasizing that instruction which will help the native earn his own living becomes more and more obvious. The best and greatest work of the bureau, I think, is done at Hydaburg, where self-sustaining industries owned by the natives are established, and at Klukwan, where the natives are encouraged to cultivate the soil. This last is especially to be commended in a country where such farming as can be done meets with little competition and is exceedingly profitable.

The best part of the Hydaburg-Klukwan plan is that it is a feasible method of drawing the Indians together in larger communities, where it will be possible for the bureau to do the most for them.

To overlook, in the scheme of development for the Alaska Indian, his necessity for new amusements is to be impractical. Few rational and wholesome civilized amuse-

merits are now open to the Indian, and largely for this reason the potlatch still flourishes. In Juneau last winter there were no less than 30 potlatches. In southeastern Alaska these functions frequently cost as much as \$1,000 each; local merchants estimate that not one of those given in Juneau last winter cost the host less than \$500, or the earnings of one man for the whole summer. Furthermore, the cost in money is not the only evil of these "parties." Dr. Mahone regards the gluttonous feasts which accompany them as the most serious hygienic error in the lives of the natives. The schools are at a standstill for days after a celebration, and usually another potlatch is given before they have recovered from the last.

Hitherto we have tried to take the natives from their old forms of amusements without offering them any new ones. We have expected a lively and fun-loving people to become suddenly serious and console themselves with piety, and we have failed. To the degree we have succeeded in persuading them to abandon their old and vicious amusements, they have taken up new ones hardly less vicious, the most important being drink.

We should devise a system of institutional amusements in a few of the communities to which we desire to draw the natives.

What I wish to emphasize in this report more than anything else is the necessity for encouraging the native in the continuance and improvement of purely native industries in which they do not compete with white laborers. There is much in the Alaska Indian arts and crafts well worth preserving from the artistic as well as the commercial point of view. The demand for Alaska Indian baskets is now greater than the supply. If this industry were properly directed and protected and some assistance given in locating a market the natives would find it nearly as profitable as their work with nets and boats; more profitable probably than their hunting has been for several years. Their genius for weaving is remarkable, and their natural ability for working in wood, metal, and leather is very great. Their market for mats and other products could easily be made a great deal larger, and they could be easily taught to make articles of wood and leather which would find a ready sale. While their carving has so far been limited to totems and charms, their ability to carve has many possibilities, and this faculty should be turned from the manufacture of souvenirs and trinkets toward the production of articles useful yet distinctly Indian in method of workmanship, of which the cedar chest is merely the first which suggests itself. So far the articles of silver and copper sold as Indian are so produced as to take advantage of the Indian rather than to help him and afford him the least possible amount of work and profit. The articles are often manufactured in the east and shipped here for finishing by the Indians. They ought to be manufactured here; then the Indian would receive the substantial profit.

The possibilities for leather work are no less than for work in wood and metal. Apparently the only thing that the Indian has been taught to make particularly for the white man's market is the atrocious hair-seal pocket. He could be taught to make handsome and useful things of dressed and tooled leather—pocketbooks, sofa pillows, launch cushions, and innumerable other articles, useful as well as artistic. Deer skin, which now largely goes to waste, could be utilized for this purpose. In this case it would be necessary for the Government to lift the embargo now placed on the deerskin and the products of the deerskin in so far as they are produced by Indians only.

There is an excellent opportunity for a craft center in southeastern Alaska the work of which could become as famous as that of Deerfield or East Aurora, with the Indian arts as a basis. This work would not compete with that of the white laborers. Development of the really Indian arts and crafts can, however, only be successful if carefully planned and directed by some one who understands industrial education and the general subject of arts and crafts, together with the problem of marketing.

SECTION II.—REPORTS BY PHYSICIANS.

REPORT ON HEALTH CONDITIONS AMONG THE NATIVES OF ALASKA.

By DR. EMIL KRULICH, U. S. Public Health Service.

My detail in the Territory has enabled me to inspect the settlements of the Indians on the southeastern coast and upper Yukon River; of the Aleuts along the southwestern coast and in the vicinity of Cook Inlet; and of the Eskimos on the lower Yukon and on the coast of Bering Sea.

In my inspection I endeavored to examine as many natives as possible, and in these examinations special effort was made to determine the number suffering with tuberculosis, trachoma, and venereal diseases. In addition, I made a personal study of the sanitary conditions in the villages, and interviewed physicians and other persons who possessed any knowledge of the conditions that I was interested in.

DISEASES.

Sanitary conditions and the prevalence of disease vary somewhat in different sections of Alaska; syphilis is most prevalent in the southwest, eye diseases in the southeast, while pulmonary tuberculosis I believe to be most common among the Eskimos.

I found the following conditions and diseases present in the native population: Trachoma, keratitis, cataracts, blepharitis, conjunctivitis, corneal opacities, blindness, heart disease, stomach troubles, adenoids, tonsillitis, hysteria, paralysis, locomotor ataxia, pneumonia, pleurisy, tuberculosis, scabies, impetigo, syphilis, scrofula, rickets, rheumatism, epilepsy, ptomaine poisoning, and gonorrhoea. Erysipelas, smallpox, measles, and infantile paralysis have occurred in epidemics.

Eye diseases.—Eye diseases are most common in the southeast. About 23 per cent of the natives in this section show evidence of eye trouble, while the Eskimos, the least afflicted, only 6 per cent.

Trachoma is a chronic disease of the eyelids, very contagious, and if neglected causes much suffering and may result in blindness. This disease is most common in the southwest (13 per cent). Trachoma is classified as a dangerous contagious disease by the United States Public Health Service, and immigrants having this trouble are not permitted to enter the United States.

I believe that 80 per cent of the blindness and partial loss of vision among the Alaska natives could have been prevented if these cases had received proper treatment in the early stage of the disease.

All cases of trachoma should be removed to hospitals for treatment, for while at large they are a menace to the community. The eye being a delicate organ, all treatment of eyes should be performed only by physicians and experienced trained nurses, as much harm may result from interference by inexperienced persons.

Syphilis.—It is rather difficult to determine accurately the number of natives having syphilis, for the symptoms of this disease are not always manifested externally, even when present within the system. A large percentage of blindness and corneal opacities are due to the inherited type of this disease.

In my opinion, the only practical method for treating syphilis in the natives is in hospitals, by the intravenous injection of Salvarsan (606). This treatment has been tried and has given wonderful results. Unfortunately, in southwestern Alaska, where this disease is most common, this treatment can not be administered, because no hospitals are available.

Tuberculosis.—Tuberculosis is the principal disease, and if not eradicated in the near future will exterminate the native population of Alaska in the course of 60 to 70 years. All forms of tuberculosis (pulmonary, osseous, glandular) are present.

The percentages of tuberculosis and the type of disease vary in different parts of the Territory. The pulmonary form is most common among the Eskimos, while tuberculosis of bones is most prevalent along the southern coast. I have seen a number of cases of spinal tuberculosis followed by paralysis, which condition could have been prevented by proper and timely treatment.

I am of the opinion that 15 per cent of the native population is infected with tuberculosis, including all forms and both the active and latent type, while in 7 per cent it is present in the active stages.

The home conditions are responsible for this infection, for in the crowded, unventilated rooms all eat from the same dish, drink from the same teapot spout, use the same towel, and expectorate on the floor. It is there that the principal danger of contagion exists, and it is there that tuberculosis, trachoma, and syphilis are most frequently contracted.

VITAL STATISTICS.

According to the United States census of 1900 the native population of Alaska was 29,536. In 1910 it was only 25,331, a decrease of 4,205, or 14.5 per cent.

Dr. M. H. Foster, in a report to the Commissioner of Education, dated August 11, 1911, states that at Sitka, where presumably accurate records of births and deaths have been kept by the churches, for a period of 5 years and 7 months the annual birth rate has been 72.3 per 1,000 and the annual death rate 85.4 per 1,000, showing a decrease in population of 13 per 1,000. During the year 1912 the birth rate was 24 and the death rate 29.3 per 1,000, a decrease of only 5.3 per 1,000.

This improvement in the Sitka village, which is an example of the improvement in other sections of Alaska, I attribute chiefly to the influence and efforts of physicians, nurses, teachers, and hospitals now under the Bureau of Education. It demonstrates the fact that the outlook for the general improvement of the native is encouraging and the task feasible. Give the native a white man's chance and I am positive that he will respond equally as well.

RECOMMENDATIONS.

Medical relief for the native is necessary and urgent. The tubercular, syphilitic, and trachomatous should be removed to properly equipped hospitals for treatment. Trained nurses should be employed for field work. A nurse should remain in a village for a sufficient period to treat and cure the minor ailments, discharging ears, infected sores, and inflamed eyes. A portion of her time should be devoted to education—teaching mothers the proper care and feeding of infants, preparation of food, cleanliness in the homes, the necessity of ventilation, the proper collection and disposal of tubercular sputum, etc. This work is just as important and necessary as that performed in hospitals.

PRESENT MEDICAL SERVICE.

The present medical service in Alaska is entirely inadequate to the demand. At present there is no appropriation available for the erection of hospitals, although these institutions are necessary for the proper treatment of the cases. The physicians who are now employed are working at a disadvantage in buildings which are unsuited for the treatment of sick; but even with this equipment good results are being accomplished. The present medical work should therefore be extended and placed upon a firm and permanent basis.

HOSPITALS.

The solution of the medical problem in Alaska is, therefore, the establishment of well-equipped hospitals, the employment of physicians and nurses, the isolation of the infected, and the education of the native in hygiene and sanitation.

The area of the Territory of Alaska is one-fifth of that of the United States, and transportation facilities are inadequate and expensive; the erection of one central hospital is therefore impracticable. I recommend, therefore, that a chain of small hospitals be established along the coast and on the Yukon River at points most convenient to the greatest number of natives. The sick can then be sent to the nearest hospital at little expense. In my estimate I have indicated the points which to my mind would serve the greatest number of people at the least expense.

As a part of these hospitals, the erection of fair living quarters for the physicians and nurses, with as many of the comforts and conveniences as possible, is as essential as the accommodations for patients. Many of these places are isolated, the treatment of the native is not always pleasant, and the persons engaged in this work should receive encouragement and consideration. There is no inducement for competent and reliable persons to enter this service if they are to be underpaid, or if they are to be without comfortable living quarters and compelled to work without the necessary appliances, drugs, and assistants.

Such hospitals may be utilized also for training native girls in nursing. As an experiment I consider it worth the trial to detail suitable girls to these institutions for this purpose.

EXPENSES.

The estimate of the appropriation required for the erection, equipment, and maintenance of these hospitals, for salaries of physicians, nurses, and attendants, traveling expenses, drugs, and supplies for the first year is \$274,600; the cost of maintaining this service in the future, after the buildings have been provided, would be approximately \$160,000.

It is very important to meet this medical problem in Alaska immediately, earnestly, and on a permanent basis, while the percentage of contagion and cost of the work are comparatively low and within control; otherwise, the situation may become more serious and even equal that of the Indians of the State of Oklahoma, of whom 50 per cent have recently been found to have trachoma.

An appropriation of at least \$125,000 is required in order to begin this work with an efficient organization. With this amount the hospitals which are now operated may be improved and continued, two new hospitals may be erected at places where most required, and the entire field may be supplied with physicians, nurses, and drugs.

CONCLUSION.

The native of Alaska, like the Indian of the States, is being gradually deprived of his natural means of support; each succeeding year the old native finds it more difficult to provide for himself. The Government has recognized this fact, and by providing schools and establishing reindeer herds is endeavoring to assist the coming generation to cope with the new situation.

With the advent of the white man into the Territory the native has contracted his diseases, with the result that tuberculosis and venereal and eye diseases are degenerating and depopulating the race. "Health is better than wealth" applies to the native as it does to the whites. Of what value are schools if the pupils they educate may not live to benefit by the education?

It is bad economy for the Government to maintain schools without hospitals. The native of Alaska is as much in need of medical treatment as he is of education; these are inseparable, and both are essential factors to his welfare. Cure him of his ills, teach him to live properly and under sanitary conditions, and he will profit by the education received in schools, become a worthy citizen, and continue to be self-supporting.

REPORT OF THE UNITED STATES HOSPITAL FOR NATIVES AT JUNEAU.

By Dr. P. J. MAHONÉ, physician in charge.

Although very short of equipment and funds, we have really done remarkably well during the year ending June 30, 1912. We have treated 620 cases, including both hospital and out-patients, representing about 1,800 actual treatments or prescriptions, with a long range of ailments.

The greatest number of treatments were for arthritis, including both acute and chronic cases. This is the natural result of the damp, rainy climate and the native's way of living. Pulmonary tuberculosis is the next highest, being a trifle over 7 per cent of the total cases. All tubercular cases make about 9½ per cent of the total. A great deal has been said of the prevalence of tuberculosis among Alaskan natives, and reports have been made giving the percentage of tubercular individuals to the total population as ranging all the way from 10 per cent to 45 or 50 per cent. I think these high per cents erroneous. Undoubtedly one cause of this error is the number of pulmonary hemorrhages. I have seen here and at other villages natives who gave histories of more or less serious hemorrhage, apparently from the lungs, with a subsequent recovery and lack of physical signs in the lungs such as one would expect to find in cases of tuberculosis with hemorrhage. It is my opinion that many of these hemorrhage cases are syphilitic.

Alaska natives are the best syphilitic patients that have so far come under my observation, not excepting Japanese. Their response to antisyphilitic medication is prompt and sure, in fact, in many cases almost phenomenal. They seem to have a natural tendency to throw off the disease, so that often results are obtained by a few days' or a month's treatment which would require many months' or a year's treatment in white patients.

We have had few cases of trachoma, not that there are so few in the district, but because they have not applied to the hospital for treatment. Trachoma seems to run a very mild course with these people, and, it seems to me, is not so contagious as in white people. Besides, treatment to accomplish lasting results must be continued over a long, tedious period, and patients rarely come for relief except in cases of imminent blindness, or where the individual is possessed of unusual intelligence.

A good many of the house cases have been surgical, and in major operations I have often found it necessary to call in other physicians to assist, because our corps of assistants was not adequate. However, with two trained nurses on the staff all the time, we can manage to do almost any sort of operation.

Two of our most interesting cases were skin grafting—one for tubercular skin ulcers and the other for covering an area denuded by a burn. Both cases healed beautifully.

During the year we have performed 16 uterine curettements, most of which have also required perineal or cervical repairing; 4 laparotomies; 3 excisions of hemorrhoids; 4 excisions of cataracts; 2 excisions of testicle (tubercular); 4 excisions of tubercular glands in neck; 3 operations for tubercular bone disease; and 6 excisions of tonsils and adenoids, besides a great number of incisions of abscesses, curetting ulcers, and sewing up recent wounds.

I recommend that the building at present used for the native hospital at Juneau be purchased and a heating plant installed; the establishment of a small hospital, with a nurse in charge, on the west coast of Prince of Wales Island; the appointment of a physician whose duty it shall be to travel over the southeastern district; and the appointment of an additional nurse to travel from village to village, spending such time in each as may be required by conditions there.

REPORT OF DR. BRUCE H. BROWN, PHYSICIAN IN THE LOWER YUKON DISTRICT.

In the summer of 1911 I visited the native villages of Piamute, Holy Cross, Anvik, and Shageluk. By comparing my notes with those taken in 1910, I could see a decrease in the infant mortality rate, also in the number of cases of chronic illness, but an alarming increase in the number of cases of tuberculosis of the throat. This is a disease that I do not think it possible to treat successfully without a hospital. Hygienic conditions were slightly better in these villages. I called on the people, treated the sick, talked to them in their houses on sanitation, and repeated my public lecture of the previous year.

The most prevalent diseases were tuberculosis, rheumatism, lues, trachoma, iritis, and cholera infantum.

On my return to Russian Mission I took a small boat and floating down the Yukon called at the villages between Russian Mission and the mouth of the river. The natives below Russian Mission live in a much more filthy manner than those above, and, strange to say, have less disease and a lower death rate. I found a number of cases that might have been saved if they could have been removed to hygienic surroundings and if proper food and medicine had been insisted upon.

In the villages below Russian Mission the most prevailing disease on this trip was a peculiar form of blood poisoning, death resulting from some slight abrasion, in spite of deep incision and drainage. I saved only one of these cases, that of the chief reindeer herder at Mount Village, whom Mr. Cochran sent up to Russian Mission, where I could keep him in the schoolroom under constant observation. Under the microscope in these cases I found a mixed variety of bacteria, mainly of the streptococcic and staphylococcic families, but it is my belief that some other organism, transmitted by fish, has a great deal to do with the infection. There were a number of tubercular cases, some eye and ear diseases, but very little venereal infection.

In the winter I repeated my trip to the villages above Russian Mission, in addition calling at Holy Cross. I found about the same conditions as in the summer, no bowel troubles, but a few cases of pneumonia. I also made a sled journey to the Kuskokwim, calling at the tundra village Akiak and at villages between Akiak and Bethel. There was not so much sickness on the Kuskokwim; the hygienic conditions were no better and the food supply not as good as on the Yukon. This can be explained by the fact of a later and less intimate contact with whites.

In the native village in which I reside I can see improvement in almost every direction. The infant mortality rate is still very high, and through close intermarriage and inherited weaknesses it will take time to overcome it. The mothers have shown an interest in learning better ways, but the old customs can be replaced only in the course of time and by the exercise of patience. I lost two cases of tuberculosis of the throat in this village, one of them being my interpreter.

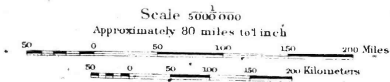
About two months ago a man was hauled in here from Quinhagak, at the mouth of Kuskokwim. He was a Malemute, so these people refused to assist him. I had to take him into the schoolroom, keep him at my own expense, and without assistance cut his leg off, while he lay flat on the floor. He is now walking on a wooden leg, the first time he has walked in four years. I can not think that the United States Government expects a physician employed by it to do work under such adverse conditions.

I have only one suggestion to make, and that is the immediate erection of hospitals. If that can not be done, turn the schools into hospitals, because under present conditions it will not be long before there will not be any children to educate. Appoint physicians as health officers, so that they will have power to enforce sanitation, and insist on obedience in the hospitals as well as in all things conducive to the physical and moral welfare of these people. Give a man a chance to do things; then hold him responsible for results. There has been so much delay that it will be a fight, even under favorable conditions; to prevent the extinction of a remarkable race of people.

DEPARTMENT OF THE INTERIOR
U. S. BUREAU OF EDUCATION
P. P. CLAXTON, COMMISSIONER

MAP OF ALASKA

Coupled from maps of the U. S. Geological Survey



1912

LEGEND

- Public Schools for natives of Alaska
- ▲ Reindeer Stations







