DEPARTMENT OF THE INTERIOR
BUREAU OF EDUCATION

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WORK OF THE BUREAU OF EDUCATION FOR THE NATIVES OF ALASKA, 1916-17

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REPORT OF THE WORK OF THE BUREAU OF EDUCATION FOR THE NATIVES OF ALASKA, 1916-17.

PART I.—GENERAL SUMMARY.

The work of the Bureau of Education for the native races of Alaska has been carried on in accordance with the terms and purposes of Congressional appropriations for their education, medical relief, and for the extension of the reindeer industry among them. In the schools, emphasis has been placed upon instruction in matters pertaining to health, industrial training, gardening, and commercial education. Effort has been made to improve living conditions in the villages, to lessen the death rate, and to render the natives better able to meet the changing conditions with which the advancing civilization of the white man has confronted them.

Sixty-eight schools were maintained with an enrollment of 3,666, and an average attendance of 2,172. Four superintendents, 1 acting superintendent, 111 teachers, 5 physicians, and 10 nurses were employed.

The school buildings at Noorvik, Shaktoolik, and Port Moller were completed during the year. A teachers' residence was erected at Hydaburg. The erosion of the bank of the Yukon River made necessary the taking down of the Fort Yukon school building, which will be rebuilt at a greater distance from the river. The region surrounding the village on Golovin Bay, in northwestern Alaska, is barren, and it was with difficulty that the Eskimos could support themselves in that location; they, therefore, migrated to a tract on the northern shore of Norton Bay, where they have an abundant supply of fish, game, timber, and reindeer moss for their herds. The school was reestablished within this tract which was reserved for the natives by Executive order. A wireless telegraph station was established at Noorvik, in Arctic Alaska, which enabled this remote settlement to communicate with civilization.

The Bureau of Education encourages the establishment in native villages of cooperative mercantile stores, financed by native capital and conducted by the natives themselves, under the supervision of the teacher of the local United States public school. In no other way can the natives so readily acquire self-confidence and experience in

business affairs. These stores demonstrate the advantages of cooperation, and the annual dividends received by the stockholders are practical evidence of the benefits of thrift.

Such enterprises are in successful operation at Hydaburg, Klawock, Klukwan, and Metlakatla, in southeastern Alaska; at Tyonek, on Cook Inlet; at Atka, on one of the Aleutian Islands; at Gambell, on St. Lawrence Island; at Wales, on Bering Strait; at Noorvik, on the Kobuk River, in Arctic Alaska; and at Wainwright, on the Arctic Ocean. The auditing of the affairs of the four enterprises in southeastern Alaska made in January, 1918, by a representative of the Bureau of Education showed that these companies had conducted a business of $96,762.89 during the previous 13 months. The annual business at Atka, Gambell, and Wainwright approximated $15,000.

One of the most beneficent functions of the Seattle office of the Alaska Division is its transaction of personal business for the natives when such assistance is desired. Formerly it was possible for the natives in remote villages to dispose of their valuable furs and other commodities to local traders only, with the result that the natives received low prices and were constantly in debt to the traders. Within recent years the natives, even in the remotest regions, have availed themselves of the increased facilities of the mail service and send their furs to the chief of the Alaska Division in Seattle, who, through the Seattle Fur Sales Agency, sells the furs to the highest bidder. From July 1, 1912, to June 30, 1917, these sales of furs, ivory, whalebone, etc., have amounted to $42,166.40; in addition, cash amounting to $9,980.80 has been received from natives of Alaska for the purchase and shipment of supplies. During this period, their deposits in Seattle banks have realized them $624.76 interest. By direction of the Secretary of the Interior the supervision of this business is made part of the official duty of the chief of the Alaska Division and he is under bond for the faithful performance of the same.

Action was again taken to put in operation the industries in Metlakatla, on Annette Island. A lease was entered into with cannery operators of Seattle, Wash., of a site for a salmon cannery, and of fish trap rights within Annette Islands Reserve. The lessees guarantee the payment during the season of 1917 of not less than $4,000 for fish-trap privileges. The cannery is to be operated for five seasons beginning with 1918. For the cannery and fish-trap privileges during these five years the lessees guarantee the payment of not less than $6,000 per annum. Except in a few instances where skilled labor is required, only native inhabitants of Annette Island are to be employed. It is hoped that the annual income to the Metlakatlans from the leases will enable them at the end of the

period of the lease to purchase all of the lessee's interests and operate the cannery themselves, under the supervision of the Federal Government. A local cooperative company has rehabilitated the sawmill which is now furnishing lumber for the cannery building as well as for other buildings in the village. Six thousand dollars of the bureau's funds were expended in installing a water system to furnish drinking water for the village, and limited water power for the cannery and sawmill.

For the fiscal year 1915–16, Congress appropriated $25,000 to provide for the medical relief of the natives of Alaska; in addition, $19,000 of the appropriation for the education of natives of Alaska was used for that purpose, making a total of $44,000 for medical relief during the year. The appropriation for medical relief was increased from $25,000 to $50,000 for 1916–17, but as none of the education appropriation was used for medical relief the total expended for that purpose during 1916–17 was only about $6,000 more than during the previous year. A well-equipped hospital was maintained at Juneau with a physician in charge and three nurses in attendance; the small, improvised hospitals at Nulato and Kanakanak were continued; the hospital at Kotzebue was not in operation during the year, owing to lack of funds and the difficulty in finding a properly qualified physician willing to go to that remote station.

In addition to the employment of physicians and nurses, in several of the Alaskan towns arrangements were made for the treatment of natives in hospitals and by physicians upon the request of superintendents or teachers; teachers at stations remote from a hospital, physicians, or nurses, were furnished with medical supplies for use in relieving minor ailments.

Plans were made in the summer of 1916 for the establishment of a small hospital at Akiak, on the Kuskokwim River, and material for the erection of a hospital building at that place was purchased in Seattle. Great difficulty was experienced, however, in securing transportation for the building material and hospital supplies to this isolated place. One of the two vessels which it was possible to secure proved unseaworthy, and was unable to reach its destination. It had to return to Seattle with its cargo undelivered and part of it in a damaged condition. It was then too late to secure another boat to make the voyage during the short season of open navigation remaining. Consequently it was necessary to postpone the erection of the hospital at Akiak until the following year.

THE REINDEER SERVICE.

The appropriation of $5,000 for the distribution of reindeer among the natives and the training of the natives in the care and management of reindeer was used to establish new herds and to support

native apprentices being trained in the industry. The increased cost of food and clothing has made it impossible for the Government to train as many apprentices with the same appropriation as formerly.

The statistics regarding the reindeer service for the fiscal year ended June 30, 1917, show that during the year the number of reindeer increased from 82,151 to 98,582, and the number of herds from 85 to 98. Of the 98,582 reindeer, 67,448, or 69 per cent, were owned by 1,568 natives; 3,046, or 3 per cent, were owned by the United States; 4,645, or 5 per cent, were owned by missions; and 23,443, or 23 per cent, were owned by Lapps and other whites. The total income of the natives from the reindeer industry during the fiscal year, exclusive of the meat and hides used by the natives themselves, was $97,515. The total number of reindeer, 98,582, is a net increase of 20 per cent during the year, notwithstanding the fact that 13,144 reindeer were killed for meat and skins, or were lost.

There is still need for the extension of the industry into the Copper River region and especially in the delta country between the Yukon and the Kuskokwim Rivers, where hundreds of natives are living in abject poverty, unreached by civilizing influences.

The fairs, of which four were held during the winter, again proved to be a great stimulus to the natives engaged in the reindeer industry.

LIST OF PERSONS IN THE ALASKA SCHOOL SERVICE, 1916-17.

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

EMPLOYEES IN THE WASHINGTON OFFICE.

William Hamilton, acting chief of the Alaska Division, Pennsylvania.
David E. Thomas, accountant, Massachusetts.
James O. Williams, clerk, Illinois.

EMPLOYEES IN THE SUPPLY AND DISBURSING OFFICE, SEATTLE.

Harry C. Sinclair, supply agent, Maryland.
Alexander H. Quarles, special disbursing agent, Georgia.
Chauncey C. Bestor, assistant supply agent, Washington.
Julius C. Helwig, clerk and stenographer, Indiana.
Mrs. Iva M. Knox, stenographer and typewriter, Washington, from October 23, 1916.

EMPLOYEES IN ALASKA.

DISTRICT SUPERINTENDENTS OF SCHOOLS.

Walter C. Shields, northwestern district, Nome.
Walter H. Johnson, western district, St. Michael.
George E. Boulter, upper Yukon district, Tanana.
Arthur H. Miller, (acting superintendent), southwestern district, Copper Center.
Charles W. Hawkesworth, southeastern district, Juneau.

PHYSICIANS.

Emil Krulish, M. D., Public Health Service, on special detail.
Walter A. Borland, M. D., Kanakanak, from September 1, 1916.
Douglas Brown, M. D., Juneau Hospital, to September 25, 1916.
William H. Chase, M. D., Cordova, from November 16, 1916.
Linus H. French, M. D., Kanakanak, July-August, 1916, and May-June, 1917.
Frank W. Lamb, M. D., Nulato.
James P. Mooney, M. D., Juneau Hospital, from September 2, 1916.
Daniel S. Neuman, M. D., Nome.
H. N. T. Nichols, M. D., Kotzebue, during July, 1916.

CONTRACT PHYSICIANS.

William Ramsey, M. D., Council, from September 1, 1916.
Curtis Welch, M. D., Candle, from December, 1916.

NURSES AND TEACHERS OF SANITATION.

Mrs. Mabel R. Borland, Kanakanak, from September 1, 1916.
Miss Mamie Conley, Juneau Hospital.
Miss Frances V. Dwyer, Juneau Hospital.
Mrs. Lulu A. Evans, Akiak, from September 1, 1916.
Miss Esther Gibson, southeastern district, from November 1, 1916.
Thomas R. Glass, Kanakanak, July-August, 1916; Kogiung, from September 1, 1916.
Mrs. Carrie W. Lamb, Nulato.
Miss Mabel Le Roy, southeastern district, from December 13, 1916.
Mrs. Lucia Petrie, St. Michael, from September 1, 1916.
Miss Rhoda A. Ray, Juneau Hospital.

STENOGRAPHER, OFFICE OF THE DISTRICT SUPERINTENDENT, JUNEAU, ALASKA.

McMurtrey, J. P., from September 16, 1916.

Teachers and school attendance, 1916–17.

NORTHWESTERN DISTRICT—ARCTIC OCEAN AND BERING SEA REGIONS AS FAR SOUTH AS THE KOYUK RIVER, INCLUDING ST. LAWRENCE ISLAND.

Schools.	Teachers.	Appointed from—	Average daily attendance.	Enrollment.
Barrow	Telbert L. Richardson	Washington	56	89
	Mrs. Carrie L. Richardson	do		
	Roy Ahmaognak	Alaska		
Buckland	Mrs. Iva K. Taber	do		
Diomede	Arthur E. Eide	California	17	19
Elim	Miss Anna E. Karlson	Alaska	11	14
	Miss Mary K. Westdahl	do	53	67
Gambell	Jean Dupertuis	Washington		
	Mrs. Elizabeth Dupertuis	do	53	75
Igloo	Ebenezer P. Evans	do		
Kivalina	Harry D. Reese	Pennsylvania	37	46
Noatak	Clarence Ausley	Oregon	29	53
	Mrs. Sue B. Ausley	do	37	42
Nome	Charles Menadelook	Alaska		
	Charles Kituk	do	23	60
Noorvik	Charles N. Replogle	Washington		
	Delbert E. Replogle	do	68	108
	Mrs. May Replogle	do		
	Mrs. Lydia Orealituk	Alaska		
Selawik	Frank M. Jones	Washington		
Shishmaref	Thomas W. Schultz	California	32	66
	Mrs. Kiatcha Schultz	do	40	52
Shungnak	Fred M. Sickler	Pennsylvania		
Sinuk	Miss Lucy Howard	Alaska	28	51
Teller	Miss Jorgine Enestvedt	Washington	24	39
Wainwright	Earle M. Forrest	do	20	35
	Mrs. Elizabeth Forrest	do	27	50
Wales	John F. Coffin	California		
	Mrs. Mary G. Coffin	do	70	89
	Arthur Nagozruk	Alaska		
White Mountain	James V. Geary	do		
	Hannah A. Geary	do	48	77
Total			673	1,032

WESTERN DISTRICT—BERING SEA REGION, BETWEEN KOYUK RIVER AND CAPE NEWENHAM.

Schools.	Teachers.	Appointed from—	Average daily attendance.	Enrollment.
Aktak	John H. Kilbuck	Alaska	49	60
	Miss May Wynne	Kansas		
	Peter Williams	Alaska		
Akulurak	Miss Mary Laurentia	do		
Bethel	Mrs. Bertha J. Boyd	Washington	52	62
	William P. McKearney	Alaska	33	64
Eek	Thorvald A. Anderson	do		
Hamilton	Mrs. Martha Fuller	Washington	17	32
Holy Cross	Miss Mary Bernadette	Alaska	19	29
	Miss Mary Theela	do	87	98
Hooper Bay	Ralph K. Sullivan	Washington		
Mountain Village	H. Ray Fuller	do	31	58
Nulato	Miss Mary W. Salley	Alaska	17	23
	Miss Mary Francis	do	34	60
Pilot Station	Elmer M. Harnden	Washington		
Quinhagak	Miss Marie E. Stecker	Alaska	28	32
Russian Mission	Mrs. Corinne Cull	Washington	35	52
St. Michael	Floyd L. Allen	Michigan	20	25
	Mrs. Gladys E. Allen	do	22	38
Shageluk	Walter E. Cochran	West Virginia		
Shaktoolik	Misha Ivanoff	Alaska	24	43
	Harry Vincent Johnson	Minnesota	21	53
Unalakleet	Elmer E. VanNess	Tennessee		
	Samuel Amarik	Alaska	47	81
	Miss Eva Rock	do		
Total			535	810

UPPER YUKON DISTRICT—VALLEY OF THE YUKON AND ITS TRIBUTARIES BETWEEN 141° AND 157°.

Schools.	Teachers.	Appointed from—	Average daily attendance.	Enrollment.
Circle	Miss Evelyn L. Carey	Alaska	21	30
Eagle	Everett P. Frohock	Washington	10	32
Fort Yukon	Miss Winifred Dalziel	New York	28	70
Rampart	Miss Lula Graves	Alaska	24	30
Tanana	George E. Boulter	do	4	17
Total			87	179

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

Schools.	Teachers.	Appointed from—	Average daily attendance.	Enrollment.
Akhlok	Mrs. Kathryn D. Seller	Alaska	36	43
Atka	Amos B. Carr	Washington	18	30
	Mrs. Ella D. Carr	do		
	Leland E. Carr	do		
Chignik	Mrs. Lura Olsen	Alaska	26	31
Chogiung	Preston H. Nash	Washington	46	57
	Mrs. Preston H. Nash	do		
Copper Center	Arthur H. Miller	do	7	32
	Estaco Ewan	Alaska		
Iliamna	Fred Phillips	do	13	20
Kogiung	Thomas R. Glass	Washington	17	39
Kulukak	James G. Cox	Alaska	33	37
Port Moller	Walter G. Culver	Oregon	15	30
Susitna	Rupert A. Moon	Alaska	8	20
Tatitlek	Chesley W. Cook	Washington	56	62
	Mrs. Mary E. Cook	do		
Togiak	Walter H. Johnston	Alaska	17	39
Tyonek	Charles M. Robinson	Washington	27	29
	Mrs. Milda G. Robinson	do		
Ugashik	Will A. Wilson	Alaska	16	32
Unalaska	Joseph W. Coleman	Washington	84	94
	Mrs. Marie A. Coleman	do		
Total			419	595

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

Schools.	Teachers.	Appointed from—	Average daily attendance.	Enrollment.
Douglas	Mrs. Isabel A. Gilman	Washington	19	63
Haines	Mrs. Nancy L. Alexander	Alaska	15	38
Hoonah	Charles F. Richardson	Washington	31	100
	Miss Elsie M. Neale	Washington, D. C.		
Hydaburg	Mark E. Sidd	Washington	67	120
	Miss Ruth E. Storrs	do		
	Miss Frances M. Williver	do		
	Mrs. Elizabeth E. Williver	do		
Juneau	Mrs. Sadie E. Edmunson	Idaho	31	76
Kake	Miss Nellie M. Taylor	Missouri	30	74
	Mrs. Belle Newton	Alaska		
Killisnoo	John R. Cox	Oregon	21	97
Klawock	Charles E. Hibbs	Washington	63	88
	Mrs. Margaret W. Hibbs	Oregon		
	Miss Ermine Forrest	Alaska		
Klukwan	Fay R. Shaver	do	20	40
	Miss Marie B. Thomeson	do		
Loring	Miss Margaret Hamilton	do	13	20
Metlakatla	Charles D. Schell	Oregon	82	169
	Harry F. Gell	Idaho		
	Miss Agnes Danford	Washington		
	Miss Gertrude R. Wybrant	do		
	Miss Margaret W. Schell	Oregon		
	Mrs. Edith C. Schell	do		
Sitka	Mrs. Elizabeth P. Brady	New York	30	70
	Miss Mary B. Brady	do		
Wrangell	Miss Hannah E. Breece	Oregon	30	45
Yakutat	Elof M. Axelson	Illinois	16	41
Total			496	1,050

Expenditures from the appropriation for "Education of Natives of Alaska, 1917."

Appropriation	$200,000.00
Salaries in Alaska	100,244.99
Equipment and supplies	21,937.52
Fuel and light	24,632.90
Local expenses	1,808.44
Repairs and rent	7,600.54
Buildings	10,960.07
Metlakatla industries	6,000.00
Destitution	1,881.24
Commissioner's office salaries	5,071.67
Seattle office salaries	8,271.33
Commissioner's office expenses	200.00
Seattle office expenses	873.21
Traveling expenses	10,220.97
Contingencies	297.12
Total	200,000.00

Expenditures from the appropriation for "Medical Relief in Alaska, 1917."

Appropriation	$50,000.00
Salaries in Alaska	19,007.84
Equipment and supplies	12,980.07
Fuel and light	2,019.10
Local expenses	1,578.71
Buildings	8,068.88
Destitution	4,082.07
Traveling expenses	2,071.75
Contingencies	191.58
Total	50,000.00

Expenditures from the appropriation for "Reindeer for Alaska, 1917."

Appropriation	$5,000.00
Salaries of chief herders	583.61
Supplies	4,210.72
Establishment of new herds	200.00
Contingencies	5.67
Total	5,000.00

Number of reindeer belonging to each class of owners, 1916–17.

Owners.	Number of reindeer.		Increase.[1]		Decrease.[2]		Per cent owned.	
	1916	1917	Number.	Per cent.	Number.	Per cent.	1916	1917
Government	3,390	3,046	.....	.....	344	10	4	3
Missions	5,186	4,645	.....	.....	541	10	6	5
Lapps and other whites	17,530	23,443	5,913	34	.....	.....	22	23
Natives	56,045	67,448	11,403	21	.....	.....	68	69
Total number	82,151	98,582	.....	.....	.....	.....	.....	.....

[1] By purchase, apprenticeship, and fawns.
[2] By paying apprentices and natives for services, and sale of deer by missions.

Annual increase and decrease of reindeer.

Years.	Balance from previous year.	Fawns surviving.	Imported from Siberia.	Killed for food and skins, or lost.	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	96	492	45	.....
1895	492	276	123	148	743	56	.....
1896	743	357	.....	100	1,000	48	.....
1897	1,000	466	.....	[1]334	1,132	46	.....
1898	1,132	625	161	185	1,733	55	.....
1899	1,733	638	322	299	2,394	37	.....
1900	2,394	756	20	487	2,692	32	.....
1901	2,692	1,110	200	538	3,464	41	.....
1902	3,464	1,654	30	353	4,795	48	.....
1903	4,795	1,877	.....	390	6,282	39	31
1904	6,282	2,284	.....	377	8,189	36	30
1905	8,189	2,978	.....	926	10,241	36	25
1906	10,241	3,717	.....	1,130	12,828	36	25
1907	12,828	4,519	.....	1,508	15,839	35	23
1908[2]	15,839	5,416	.....	1,933	19,322	34	21
1909[2]	19,322	6,437	.....	2,844	22,915	33	18
1910[2]	22,915	7,239	.....	2,829	27,325	32	19
1911[2]	27,325	9,496	.....	3,192	33,620	35	23
1912[2]	33,620	11,254	.....	6,407	38,476	33	14
1913[2]	38,476	13,681	.....	4,891	47,266	35	23
1914[2]	47,266	16,866	.....	6,260	57,872	36	22
1915[2]	57,872	21,022	.....	8,651	70,243	36	21
1916[2]	70,243	25,116	.....	13,208	82,151	36	17
1917[2]	82,151	29,574	.....	13,144	98,582	36	20
Total	.....	167,582	1,280	70,281	.....	[3]40	[3]22

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

Increase in reindeer service from 1907 to 1917.

	1907	1917
Total natives owning reindeer	114	1,568
Herders and owners	57	1,398
Government apprentices	17	24
Mission apprentices	28	10
Apprentices of Lapps and other whites		2
Herders' and owners' apprentices	27	134
Total apprentices	79	170
Reindeer owned by natives:		
Total number of herds	6,406	67,448
Sled reindeer:	16	98
Trained	445	1,843
Partly trained	77	420
Income of natives from reindeer		
Total income from reindeer [1]	$7,783	$97,515
Percentage of reindeer owned by—	$9,563	$122,517
Government	23	3
Missions	22	5
Lapps and other whites	14	23
Natives	41	69

[1] Includes approximately $6,000 received by Teller Mission for deer sold Lomen & Co.

Amounts appropriated, growth, and results of introduction of reindeer among natives of Alaska.

	First 10 years (1893-1902).	Next 5 years (1903-1907).	Last 10 years (1908-1917).	Total.
Appropriations	$133,000	$99,000	$85,000	$317,000
Number of herds at end of each period	9	7	82	98
Number of natives owning reindeer at end of each period	68	56	1,444	1,568
Average cost to Government per owner	$1,956	$1,768	$59	$202
Number of reindeer owned by natives at end of each period	2,841	3,765	61,042	67,448
Valuation of same	$71,025	$89,125	$1,526,050	$1,686,200
Income received by natives	$4,500	$15,500	$548,352	$568,352
Number of reindeer owned by Government at end of each period	2,247	4,684	3,046	3,046
Valuation of same	$56,175	$117,100	$76,150	$76,150

Wealth produced by introduction of reindeer in Alaska.[1]

Valuation of 67,448 reindeer owned by natives in 1917, at $25 each	$1,686,200
Total income of natives from reindeer, 1893–1917	568,352
Valuation of 31,134 reindeer owned by missions, Laplanders and other whites, and Government, 1917	778,350
Total income of missions and Laplanders and other whites from reindeer, 1893–1917 [2]	214,443
Total valuation and income	3,247,345
Total Government appropriations, 1893–1917	317,000
Gain (926 per cent)	2,930,345

[1] Some of the figures in these tables are based upon estimates.
[2] $54,000 have been deducted for deer sold by Lapps and missions to Lomen & Co.

PART II.—DETAILED REPORTS.

SECTION 1.—REPORTS BY SUPERINTENDENTS.

REPORT OF WALTER C. SHIELDS, SUPERINTENDENT OF THE NORTHWESTERN DISTRICT.

During the year 18 schools have been maintained in this district. The number of pupils enrolled was 1,032, and the entire population of the villages reached by schools was 3,894. There are probably 1,000 natives outside of these villages in this district, making the total native population of this district close to 5,000. Twenty-five white teachers were under appointment and 8 Eskimo teachers.

Inspection.—All of the schools were visited during the year. Those south of Point Hope, with the exception of the up-river stations, have been visited twice. The trips of inspection during the year covered 4,328 miles, 2,427 by water and 1,901 by land. I was away from home on these trips 142 days during the year.

This is the first year that I have been able to report all my land travel to have been behind reindeer, and probably it is the first time any superintendent has had such a "clean" record. The winter's travel was the most enjoyable I have ever experienced. With the exception of a very trying trip to Igloo and Shishmaref in December, travel conditions were unusually good and the sled deer did well. With the assistance of my "boys" at various places, who were always ready when I arrived, the winter's work was done in record time. During January, February, and March, in spite of considerable deep snow, we averaged 80 miles a day. From Nome to Shungnak, with the exception of one day lost on the coast on account of a blizzard, we went straight through to Shungnak without a stop except over night. We were able to cut our time between Selawik and Shungnak to four days. On the return from the north, I was met at the Igloo Fair by my wife and two children, who traveled from Nome to the Hot Springs with sled deer.

Once more I feel that it is proper for me to express the wish that the time may come when the Government will make some provision for the medical care of its civil employees in Alaska in case of accident while traveling on duty, also that some pension provision will be established to cover any permanent disability that might very easily come to any of us who travel in this country. We are called upon to face dangerous conditions at times, and this should be recognized.

This year again adds to our debt to the Coast Guard Service for assistance rendered through the U. S. S. *Bear*. I wish to express my appreciation of the great aid rendered me by Capt. C. S. Cochran and his officers during the summer months. The trip to Point Barrow and all the coast stations was made on the *Bear*, and I was given every opportunity to do my work at all places. The work accomplished for the natives by the surgeon of the *Bear*, Dr. Ernst, was of inestimable benefit.

Teachers.—I think that our teachers, who do the real work among the natives and who are the real points of contact with our actual work, should be given all possible recognition. Their value to the service is inestimable.

The work in this district is in the hands of capable, efficient people; their hours are all their waking hours, and their place of work in the entire community and region for at least 50 miles around. They carry the responsibility of the health of each

individual, his business affairs, his family affairs, and his chances for future happiness. These community services and responsibilities make the schoolroom duties of the teachers fade into insignificance.

Through the excellent supervision of appointments, each year we are getting more efficient teachers in this district. It is an easy matter to select a person whose experience and recommendations assure schoolroom efficiency, but it takes personal investigation of a peculiar order to make certain that the applicant has the larger qualifications for the leadership of an Eskimo village. All this has been efficiently taken care of by the chief of the Alaska division.

Winter trips by teachers.—Mr. Reese and his family, Mr. and Mrs. Jones, and Delbert Replogle went to the Noatak Fair. Charles Menadelook, of Nome, went to the Igloo Fair. Mr. Forrest visited Icy Cape from Wainwright twice, and Mr. Evans went from Igloo to Nome in the spring. In addition, most of the teachers made regular trips to the herds under their supervision. These trips are often long and trying.

Schools and buildings.—This year we abandoned the school at Council and opened new work at White Mountain, 15 miles down the river. This new school has reached more people than the old one and is in a much better location.

Of the 1,000 natives referred to in the first paragraph of this report as being outside of school villages, most of them are located in small scattered communities, none of which warrants a school.

The largest centers without schools are: Point Hope, estimated population, 300; Solomon and vicinity, 75; King Island, 125.

Of these places I would again most strongly urge the establishment of a Government school at Point Hope. The Episcopal mission maintains a large mission plant at this place, but it has been in charge of one man who is manifestly unable to attend to much school work. I believe the mission would welcome the establishment of a school by the bureau if the usual good judgment were employed in the selection of a teacher. At Solomon the storekeeper has maintained a sort of school out of private funds. A building was furnished and a native teacher hired. While Solomon is, in my opinion, a poor place to "pile up" natives, yet the store and lighterage jobs will probably hold them for some years. I recommend the appointment of a native teacher at a nominal salary and the furnishing of school equipment. While King Island has a large population relatively, its location is too trying for a white teacher. Its permanence as an Eskimo village depends entirely upon the permanence of the walrus herds, which is more than doubtful.

Diomede Island is our most difficult station; the teacher is terribly isolated and the natives are hard to handle. They go right back to their old ways as soon as the winter ice comes down and shuts off the island. The school has abolished the drunkenness and crime that flourished in this region in the past, but with that exception has accomplished but little. There are few children, and there is no chance of development along economic lines. The inhabitants have to depend upon the walrus catch very largely. For several years we have been trying to induce both these people and the King Island people to go to St. Lawrence Island. While this project is difficult, yet, if accomplished, in the end it will be an excellent move.

Natives; general conditions.—I have elsewhere stated that the native population in this district amounts to about 5,000. In tabulating the births and deaths, as reported by each teacher on the monthly report cards, I find that the birth rate is about 30 to each 1,000 of population and the death rate about 20 to each thousand. This makes the actual increase about 1 per cent. I believe these figures are fairly close for this district. This would show that the Eskimos are holding their own and are slightly on the increase. Only three villages of those reported showed a decrease. In studying these figures it must not be forgotten that the large death rate on St. Lawrence Island this year, 24 out of 240, due to an epidemic, accounts for the low rate. Next year the increase will probably be twice that of this year.

A. REINDEER FEEDING THROUGH SNOW, EN ROUTE TO NOORVIK FAIR.

B. JUDGING THE SLEDS AT IGLOO FAIR.

One of these men made a round trip of 200 miles to attend the fair.

A. TEACHER'S RESIDENCE, NOORVIK, IN ARCTIC ALASKA.

B. STREET IN NOORVIK, TO WHICH THE ESKIMOS MIGRATED FROM DEERING, WHERE, ON ACCOUNT OF LACK OF TIMBER, THEY LIVED UNDERGROUND.

The past year has been unusually good for furs south of Point Hope, but much worse than usual to the north. The little village of Shishmaref, for example, received over $2,000 in cash for its white fox. There was an unusual run of fox along that part of the coast. Selawik and Noorvik and Noatak also did very well.

The coast villages, especially Wales and Barrow, had a hard winter. These villages seem to have reached the zenith of their prosperity. The decline of the whaling industry and the diminishing walrus catch, as well as the eventual lessening of the trapping in the vicinity will mean, I believe, the breaking up of these considerable centers of population. It is difficult to work out any solution of the problem for these two largest centers. While in time most of the people will become large reindeer owners, yet their herds will have to be kept at a considerable distance from these places. I am of the opinion that the future will find the large Eskimo centers inland, on rivers where there is timber, instead of on the barren coast as at present. The seal hunters will still do their work on the coast and ship their seal inland, but during the winter I am of the opinion that the future generations will live in the timber, where they can satisfy their desire for more comfortable and roomy houses and a more diversified diet.

The need of native stores, cooperative or otherwise, is very great and will become greater. It is not so much the need for lowering the prices the natives have to pay for their goods, for the present number of stores with their keen competition has put prices down where they can not be improved upon to any very great extent. It is not on the buying end that the native needs help, it is more on the selling end. There is a tremendous profit in furs and other native products a great deal of the time, if only the middleman could be cut out. The establishment of these stores would procure for the native the full value of his product. But, as I have already stated in another report, I do not believe it advisable to attempt the establishment of such a store at any place where there is not a good fox catch. It is difficult to get ahead when the only products handled are sealskins, ivory, and articles of native manufacture. The real profit is in the furs.

Noorvik.—The establishment of the Noorvik center, involving as it did the removal of Eskimos from the coast to a timbered section, has been an epoch-making event in our management of the Eskimo problem. The Noorvik station is the biggest project our people have to handle in this district. It has called for leadership of the highest order and an unusual display of mechanical ability. Mr. Charles Replogle and his son handle the largest school in this district. They also manage and operate a sawmill and an electric lighting plant; they have installed and are bringing to perfection a wireless station that is communicating direct with Nome regularly; and they have organized various native industries, among others a fish trap, managed by a native company—a native store started without any outside help. They have likewise established a sawmill-operating company, which takes charge of the management of the mill, paying the labor and engineer and sawing on shares. After the success of the electric lighting system the natives wished electricity in their homes, so an arrangement was made for the natives to purchase the lights, wire, etc., and to pay for a native engineer to keep the plant running. All of this work has been inaugurated and carried on by our people at Noorvik, and it all has been done in addition to the regular school, village, and reindeer work that all other teachers have to manage.

Medical work.—In this district we have had only one doctor under appointment, but no nurses, except Miss Carlson, at Elim, who was appointed as a teacher, not as a nurse. While we have had good contracts with Dr. Welch at Candle and Dr. Ramsay at Council, we have withdrawn from Kotzebue. An arrangement was made with Dr. Spence, of Point Barrow, to make one trip to Wainwright during the spring.

I again urge the appointment of a physician for Kotzebue, and the appointment of as many field nurses as possible, each one to have charge of several villages. In order

to render the medical service efficient it will require the services of a medical superintendent, who will visit each section and outline the work that should be done.

Eventually our service will take up the matter of preventing the spread of tuberculosis and other diseases by isolating afflicted persons. There are also chronic cases which need continual care which can only be given by some institution. I urge the establishment of a sanitarium either at Hot Springs or White Mountain on Seward Peninsula, or at Noorvik or Noatak in the north.

The "Eskimo."—Last September Mr. E. D. Evans, teacher at Igloo, and I took it upon ourselves to start the publication of a little magazine in the interests of the service and of the Eskimos. We secured all the subscriptions we could get and undertook the financial responsibility of publication. Mr. Evans took charge of the paper from Igloo because there was no one at Nome able to handle it in my absence. The paper has been a great success, we think. While it has received considerable flattering comment from outsiders who are interested in Alaska, the natives, or various scientific subjects connected with primitive peoples and countries, yet the paper's greatest success has been in its appeal to the Eskimos themselves. I have heard it said that the *Eskimo* is kept inside of the Bible in many Eskimo cabins.

The aim of all our education of the Eskimo is to put him on his feet, to make him fit to take care of himself in this modern world into which he has been suddenly thrust right out of the "Stone Age." He has imbibed education rapidly, but it has been hard to put his education to practical value at once. His knowledge of figures has been of real value to him in all his business affairs, but his reading has not been the practical good it might be because there is so little for him to read that fits his own case. In the *Eskimo* we have tried to give the Eskimo something to read that absolutely fitted his case; and he has taken to it wonderfully.

From the first we have endeavored to make the Eskimos write articles for the magazine. This has mostly been along reindeer lines, following up the plan at the basis of all the work at the reindeer fairs—the development of a strong, united Eskimo sentiment on matters that vitally concern the Eskimos. This development of Eskimo leaders and Eskimo public opinion is, in my estimation, the most far-reaching work that we can do. It is being done remarkably well by the Eskimo and the reindeer fairs. The little paper is only in its infancy, but we have many large plans for its development. For example, we have now in course of preparation several histories of different tribes, which are being written by Eskimos. These articles will doubtless prove important contributions to ethnology; records of the primitive history, religion, and folklore of a people, written by themselves. By studying their past and comparing it with the new world opened to them, the Eskimos will attain a development in the next 20 years that will be more wonderful than the advance they have made in the last two decades.

Credit should be given for the establishment of the above-named paper, and the bureau should do something to lighten the financial load of its publication. The journal should support itself and would easily do so if properly pushed. But it is hard for us to make people (natives included) appreciate the fact that the *Eskimo* while treating of Government business, yet has to be kept going by private funds.

The reindeer service.—During the past year there have been 60 different herds in this district under 17 local superintendents. The deer in these herds number about 50,379. During the year all of the stations have been visited by me, some of them several times, but only 23 of the camps have been visited. It is no longer practicable for a district superintendent to visit every camp. The camps are too widely scattered. However, I believe that I have seen and talked with most of the herders. In addition to personal conferences with the herders there has been a steady increase in the large amount of correspondence between individual herders and the Nome office.

Local supervision.—Most of our teachers have made a great success of their herds. But the work is trying and there is a mass of detail connected with it. As I have

stated repeatedly, the teacher has to neglect village and school work to attend to the herd and reindeer work. Where there are three or four or even five herds this work becomes very insistent. The time has come when efficiency demands men specially appointed for reindeer work.

Travel with sled deer.—This has been fully covered under my education report. This winter for the first time the work in this district was done behind reindeer the whole winter. The sled deer are getting better each year and the men are handling them better. This is due entirely to the impetus given reindeer transportation by the fairs.

Disease.—There has been considerable hoof disease this year, just as there was last year, and I believe it is on the increase. It is probable that we have now reached a critical point; for years we have had comparatively little trouble along that line. The last two summers a considerable number of deer has been lost from this disease. The only way we know to meet it is by moving the herd off the infected ground. In some cases this was not done because the native herders were out of reach at the time and the local superintendent knew nothing about it until too late. In time the natives will appreciate the seriousness of this matter and will fight it themselves, but at present the disease always comes at a time of the year when many of the herds are undermanned, so that the most capable men are not on hand to direct matters.

With the increasing interest taken by outsiders in the by-products of the industry, especially in the development of a market for reindeer leather, we have all become more impressed with the seriousness of the damage done by the "Warble fly." This fly is the cause of the grubs that hatch out under the skin of the deer and leave large holes. These holes heal after several months but leave scars which show plainly on the hide even if they do not penetrate entirely. Considerable has been done in the past two years by the natives in tanning the leather for their own use, instead of using the skin only with the hair on. A beginning has also been made to commercialize the leather in the United States. The scars made by the grubs lessen the value of the leather tremendously and make it entirely unfit for anything but second-class goods.

There are two ways to meet the trouble, both of them seem almost useless. The one is to force a campaign of destruction against the fly itself, a "swat the fly" campaign, and the other is to follow one of the several methods for protecting the deer from the fly or for removing the grub before it hatches. The killing of the flies would have to be a long and persistent task. To dip all the deer, as sheep are dipped, would be difficult and expensive in this country. To squeeze the grubs out by hand would mean taking out more than fifty from each animal and would be tedious. However, this evil must be stamped out in some way. In this case, as in most of our other difficulties, what we need is a trained man to study the situation and recommend a method to follow.

Breeding, etc.—The last of the deer imported from Siberia reached here in 1902. Since that time, while there has been an extremely slight mixture of caribou blood with the original strain, the deer in this country have reached a large number and they all come from the original stock, numbering but little more than a thousand. My personal experience goes back only eight years. I do not believe the deer have become much smaller from this in-breeding, but I have been forced to the conclusion that the deer are not as prolific as they were years ago. In 1914 I made a report on the percentage of adult females bearing fawns. At that time the general average was 71 per cent. This year it will be 65 per cent or less. And this year was a good year. The stock can not but deteriorate, no matter how careful we are to select the best bulls for breeding and to exchange bulls. We know that this matter has not been efficiently managed because we have no man specially trained for such work. But even by the most scientific management the fact would still remain that year after year we have only the original stock to work on.

We should no longer slight the fact that new stock is needed. I strongly recommend that at least three shipments of deer be imported from Siberia to improve our stock. Unless this is done the deer we have will certainly deteriorate faster each year. As already stated, I do not believe there is any very serious deterioration in size now, except what is due to careless breeding with the stock we have, but this is bound to come. I do believe, however, that the deer are less prolific and possibly more subject to disease and weakness, especially the fawns.

When I consider that our appropriation has dwindled from $25,000 to $5,000 I appreciate the fact that it will be difficult to secure money for this purpose. However, the reasonableness of the recommendation should be self-evident when it is recalled that the last deer was imported in 1902.

Mission and white herds.—My report of last year contains general statements regarding mission herds and herds owned by white men which still apply. At the date of writing this report, Lomen & Co. have increased their holdings by the purchase of the Klemetsen herd in the western district. To effect this purchase several new stock holders entered the company, all business men here at Nome.

The company has secured the services of William Marx, United States commissioner at Teller, for the management of their Teller herd. They have done well in creating markets for the by-products of their herd, and have been the first to begin butchering deer in a slaughter house in accordance with modern methods.

Grazing lands.—The question of the right to use land for grazing is the point of contact between white herds and native herds. There is some unrest now over this question, and it can easily become critical unless properly covered by law.

"*The Eskimo.*"—The publication of our little paper in this district has done a great deal to interest the reindeer men in their work. Two pages of each issue, at least, have been devoted to reindeer business. It is an extension of the work of the fairs and tends to emphasize the development of native leaders, and to create a united Eskimo sentiment on matters that concern their race so deeply. It is impossible for me to show in this report the great good accomplished by this magazine even in its beginning.

Reindeer fairs.—The two fairs, at Noatak and at Igloo, far surpassed anything we ever had before. The interest was greater, much more work had been done to prepare for the events, and many records were broken. At the Noatak fair over 101 people were fed in the mess tent (not including the 11 in the teachers' mess). At Igloo 83 were fed in the big tent. Caring for this number of people for a week entailed considerable work. Four years ago such efficient labor was out of the question and unheard of. Now it is all handled by the Eskimos themselves. I wish to emphasize the fact that in addition to the impetus given the reindeer industry, the fairs are developing the Eskimos along other important lines.

Among records that excel those of a year ago, the 10-mile course was covered in 27 minutes and 20 seconds. Last year it was 37 minutes and 8 seconds. It will also be noted that in the racing events the Igloo fair was much faster than the Noatak fair. I should state, in this connection, that the exhibitions were much better at the northern fair.

I believe the most important thing accomplished at the fair was the emphasis placed upon the development of a real united Eskimo sentiment on matters that concern the natives vitally. This year the delegates elected at each fair five head herders who are to be their "leaders" during the coming year. This first year we will not do much to develop this idea, but the second year will see a great deal of authority placed upon these head herders. They have already settled a great many minor matters, and settled them much more efficiently than I could have myself. They have attempted to bind the herders together and to get all of the reindeer men to work together, especially in the division of markets for meat. There is much to be done along this line yet.

I thoroughly believe that the most hopeful factor in the situation today, and one that will save the reindeer industry for the Eskimos, is the awakening of the natives to their own responsibilities. Each fair will strengthen them along this line.

Recommendations.—(1) Expert supervision. We should secure the services of a trained man to study the herds, improve breeding and fight disease.

(2) Native supervision. We should develop the head-herder idea as worked out at the fairs and give several of the leading natives a very nominal salary, either as teachers, from the education fund, or as head herders from the reindeer fund.

(3) Secure an appropriation for the importation of 200 bulls from Siberia to improve the stock.

(4) Settle the matter of grazing rights.

(5) Use a part of the funds, either education or reindeer, or both, for the support of *The Eskimo*.

(6) Continue the fairs for at least three years more.

(7) The chief of the division should make a winter visit to northern Alaska in the interests of the reindeer industry.

REPORT OF WALTER H. JOHNSON, SUPERINTENDENT OF THE WESTERN DISTRICT.

Inspection.—Special effort was made to visit the heretofore-uninspected villages and camps and, with a few exceptions, every stream, bay, island, and village, was visited. The villages near the mouth of the Kuskokwim River, as well as the section north of Bristol Bay, were visited by Assistant Superintendent John H. Kilbuck, while the villages on the Shageluk slough were visited by W. E. Cochran. The approximate distance traveled by the superintendent was 5,000 miles—2,500 by small gas boat, 2,000 miles with reindeer, and 500 miles with dogs. While in conference with the chief of the division, at Seattle last July, plans were made for exploring the coast region of the tundra district between the Yukon and Kuskokwim Rivers. As this country is a network of sloughs, small rivers, swamps, tide-flats, and lakes, a small boat large enough for two men to sleep in, yet small enough to be portable, was purchased, with a small detachable engine. With this outfit I was able to make the trip from Hooper Bay to Bethel, traveling back and forth in a zigzag course along the coast until Nelson Island was reached. From there the general direction of travel was toward the east, by way of the large tundra lakes and the tundra rivers until we arrived at the Kuskokwim River, which we ascended until the small slough or "dirty creek," as it is called, was reached. This is the entrance of the Yukon-Kuskokwim portage. We crossed this portage in five days, and because of low water it was necessary to carry our outfit over five places; some were not long—200 yards or more, while two were nearly a mile in length. Having to carry a complete camping outfit besides an engine, gasoline, and a boat, it was necessary for us to make seven relays—80 pounds or 10 gallons of gasoline being considered a pack for one man in the soft moss or muck that is found on low ground. We then proceeded down the Yukon to St. Michael, whence a trip to Unalakleet and return was made before the freeze-up. Immediately after the break-up a trip was made to Nunivak and Nelson Islands, also to a few places that I had been unable to reach with a small boat last fall.

I now feel satisfied that I have thoroughly investigated conditions along the coast, islands, and tundra of this district. All investigations were carried on with the idea of locating schools or reindeer herds. Going south from Hooper Bay not a single suitable site was found until Nelson Island was reached; along the north and east shores of it there are no villages, the water being shallow when the tide is out. Several small camps or villages were found on this stretch of tundra, but they were all

built in low places near sloughs, rivers, lakes, or the ocean. The best location noticed was situated about 50 miles north-northeast of Nelson Island; and though there were no natives at this place, I believe that they would move to this low mountain if a school were placed there. At Nelson Island the natives were found on the west and south sides. They stay on the island for a few months in the summer and about three months in the spring, fishing in the summer and sealing in the spring before the ice goes out. Four days were spent at Tununa, on Nelson Island. A thorough investigation was made as to the resources of this place. There is very little game in the winter; in the spring the people come to the island for sealing, then after the ice goes out they scatter along the west side of the island and fish. Codfish, herring, and salmon are caught in abundance; water fowl abound; and berries are plentiful. Driftwood is scarce, but sufficient is found for kindling, while two good veins of coal are within 2 miles of Tununa. One vein is on the beach and can be loaded into boats, while the other is high up on the hillsides. Both veins are accessible and as the coal is of good quality it could be utilized to supply several of the coast schools, or at least Hooper Bay and Nunivak Island. Nelson Island is not suitable for reindeer grazing during the winter.

Nunivak Island has several small villages, the largest being located on the northeast coast. This village has an ideal site for a school, and the Methodist Missionary Society, with headquarters at Nome, is planning to build a mission at this place. The natives of Nunivak expressed their willingness to move wherever the school might be located. As the land is quite high and rolling, with gravel beaches, affording good drainage, the soil was not so wet and muddy as that of the tundra district and the people were not so muddy and dirty. At Kanrayuktaligamute, where the best site was found, there is a small stream for water; a little driftwood is gathered in the bay; water fowl, fish, berries, and sea birds furnish food in the summer, while seal hunting and fox trapping (white foxes) are profitable occupations during the winter. The island is the best adapted to the grazing of reindeer that I have seen.

By making a single portage of approximately 200 yards we were able to visit the villages on the large lakes north and west of Bethel. These lakes, though apparently deep, are quite shallow and we were able to touch bottom with our oars—5 feet being the average depth, and often places were found a mile or more from shore that were only 3 feet deep. This has to be considered when the school site is decided upon. The villages are all located at the entrance of sloughs or small rivers, consequently the ground is lower and not as suitable for building purposes as that found farther back. A good location for a school was noticed on a slough leading from these lakes into the Kuskokwim River. Here a native trader has a small store and one or two native families live near by, but the native village proper is across the river on lower ground. If a school should be built on the high ground it would be necessary to have the natives move across the river or the children would have to cross in oats until the ice formed. The name of this place is Piagamute and is the nearest village to the Kuskokwim River, being about 20 miles from Bethel by land and 50 by water. The supplies could be shipped to Bethel and then transferred to smaller boats for transporting to the school site.

The region north and west from Akiak has not a sufficient number of natives to warrant a school. Three small villages were visited, with one or two families in each. These people were invited to send their children to Akiak, Russian Mission, or Holy Cross. In many places arrangements were made whereby parents in outlying villages placed their children with relatives located in close proximity to a school, thereby giving the children the benefit of a schooling without removing the parent from his chosen hunting ground.

A school should be located on the Kashungnuk River, near the Yukon, where the last spruce timber is found. With a cooperative store, hospital, mission, doctor, and a nurse this place would draw from all of the tundra villages within a radius of

a hundred miles. Only in June can the supplies be boated from the Yukon into this river and the supplies must come on the first boat on the opening of navigation. The distance to the site is approximately 40 miles from the Yukon by land, and a hundred by water. Land travel is impossible in summer. Kaltag, 40 miles below Nulato, and Kotlik, near the north mouth of the Yukon River, have sufficient children to warrant schools. A few of the Kaltag children attend school at Nulato, and three or four of the Kotlik children either attend at St. Michael or Hamilton.

Schools.—I believe that all of the teachers realize that to do justice to the work and the people, it is necessary to exercise a spirit of philanthropy. A teacher's time is not his own, as he soons finds out by experience, for often he is called at the most inopportune times to assist in philanthropic deeds. A self-willed person, who believes that he is giving up too much by laboring in this Alaskan country, is not the sort of a worker the bureau will retain in the work. The teachers are all efficient, and the general advancement of the communities shows that excellent work has been done. This year special stress has been put on filling every desk and seat in the schools. Many children living in distant villages were invited to come and live with their relatives so as to be able to take advantage of the school. In the schoolroom the children were taught to tan skins, make snowshoes, fish traps, fish nets, sleds, draw maps of the region on a large scale, in addition to the usual branches of study; the girls were instructed in cooking, sewing, and general housework, while the boys studied and practised agriculture. The best snowshoe maker in the vicinity was invited to instruct the class, and in this way the boys were soon able to turn out a creditable snowshoe. In one village the best workman happened to be the chief or spokesman, and he deemed it an honor to help the children and took great pride in teaching them. The same method was used in making sleds, tanning skins, etc., while all of the older men were invited to make additions to the large map of the region. In these ways the older people become interested in the work done by the children and try to keep their children in school as long as possible. It is the exception, rather than the rule, to find a parent that does not wish his child to attend school. Should a teacher go about his work in a half-hearted way it not only affects the children, but the whole village shows the lack of ambition.

Medical work.—Material for a hospital arrived at Akiak during the summer of 1916, but the boat that was to bring the carpenters, doctor, and nurse did not succeed in making its fall trip, so the building was not erected. However, a nurse managed to reach Akiak via the Yukon River, crossing the portage. She visited the schools and villages on the Kuskokwim River, and also the villages of the tundra. Her work was of a very satisfactory nature. A doctor will be in charge of the hospital, which will be erected later.

At Nulato Doctor Lamb and his mother carried on the work in an excellent manner. The natives all trust Doctor Lamb and assist him in many ways. He is to be transferred to Akiak and the natives deplore the fact that their physician is to leave them. But they have been assured of a doctor, and understand that the hospital will not be closed.

Shageluk, Anvik, and Holy Cross are without the services of a physician. Holy Cross has a small hospital and a nurse in charge. A nurse is a great help in any community, but it is necessary that a doctor make occasional visits. Anvik will build a small infirmary and it has been promised a nurse by its Mission Board. This infirmary will be open to all natives, and as Anvik is conveniently located to Shageluk, by winter trail, and as most of the Shageluk natives come to the Yukon to fish during the summer, near Anvik, a doctor should be placed in this locality, with headquarters at Anvik. Rev. J. W. Chapman voiced the sentiment of the Anvik people by stating that they would be willing to provide a place for the doctor to stay while at Anvik. The doctor would travel among the Shageluk, Holikachuket, Holy Cross,

and Swiftwater natives. The only expense to the bureau would be the drugs, travel and salary of the doctor.

A medical man should be stationed at Mountain Village. If possible his wife should teach the school. This doctor would make trips into the tundra and visit Pilot Station, Hamilton, and Akulurak. He would blaze the way for a hospital to be placed on the tundra, later. At the present time the people of the lower Yukon are without trained medical aid.

The nurse at St. Michael, with the free aid given by the post surgeon, is able to handle the situation very satisfactorily. I trust that some arrangement can be made with the War Department whereby the Interior Department can either pay for the services of their doctor at St. Michael or else have the doctor appointed to fill both positions. If this can not be done then the bureau should by all means send in a physician. This physician could attend to the native work of the surrounding villages and also care for the white population of the town. In the summer undoubtedly the doctor could add to his salary by caring for the work of the transportation companies, who have headquarters at St. Michael.

A nurse should be appointed to visit the villages of Norton Bay; she should travel between Unalakleet and Shaktoolik. A small infirmary should be fitted up at either of these places. Whenever funds are available a doctor should be located on Norton Bay, with headquarters at Unalakleet. At present these people come to St. Michael for aid, and as their ailments are often of a serious nature and require the services of a physician, they have to call on the post surgeon, whose fees are in accordance with other prices in Alaska. These people can ill afford to pay such fees.

Reindeer.—This great industry is advancing by leaps and bounds, and if the bureau wishes to maintain its supervision, it will soon be necessary to appoint a man to have complete charge of all the reindeer in the country. This individual should familiarize himself with the business from all standpoints—marketing, grazing, breeding, herding, diseases, etc. I do not mean that his jurisdiction should apply to all owners of reindeer, except when it became necessary to exercise authority in dealing with diseases, branding, disposition of strays, and the approving of grazing tracts. Not only is this industry of economic importance to the Eskimo but in the near future will prove a factor in the meat supply of the States.

Nunivak Island has a grazing area of approximately 1,000 square miles. The land is hilly and well drained, has very little brush, and is covered with the finest growth of reindeer moss that I have ever seen. The nearest land is about 30 miles away and as it is seldom frozen over, the deer could not stray. I estimate that Nunivak Island would continually feed 10,000 head of adult reindeer. Being in the direct line of ocean travel, no difficulty would be experienced in getting the meat to a good market. The Government should place deer on this island at once. The Hooper Bay herd is available and could be driven to Nelson Island for transporting to Nunivak at any time.

The Hooper Bay herd will be moved to a new location, for all of the available young men in this vicinity have been taught the work and now own deer. The plan is to place the herd nearer the Yukon River for a year, unless the Government decides to place this herd on Nunivak Island.

The Government training herd at Pilot Station will be moved to Shageluk. The Kinak herd has been moved up the Kuskokwim to the eastward of Akiak. The general trend of these herds is toward the east and the Indian will be given an opportunity to again enter the industry. Critics say that the Indian will not make a good herder. Next winter the Shageluk Indians will try to prove their ability as deer men and they are now preparing for the work.

The Holy Cross Mission herd is still in the vicinity of Andreafsky, under the direct supervision of the bureau. Though the bureau has kept a close supervision of this herd there have been no surplus males to send the mission for food. This herd will

undoubtedly be turned over at the first opportunity and the mission given another chance to manage it. I believe that it is necessary that they put a competent herder in charge and pay him a salary, he to have complete control of the herd. That is, if they intend to make a financial project out of the herd and raise the deer for a profit, instead of using the herd as a training school for furthering the industry. Two trained men will do the work of four apprentices and the expense of supplying an apprentice is as much, if not more than that of a herder, consequently the Government does not make a profit on its herds but it does continually train new men and introduce the industry to new communities.

A new herd will be started by taking the herders' and apprentices' deer from the mission and Government herds near Pilot Station. This herd will be placed near Pilot Station.

The Nulato Indians were given an opportunity to become reindeer owners and herders several years ago when a herd was placed there. They did not take kindly to the industry and the deer were removed. For the last three years these people have realized their folly and have tried every means at their disposal to get deer. It has been impossible to grant their request, and they are not capable of caring for deer. However, arrangements were made whereby young men of Nulato or vicinity could enter the industry as apprentices. Several requested positions and six were placed in herds near Unalakleet. When these young men become trained herders the deer that the Nulato people had when the herd was removed from there, will be placed with the young men and a new herd will be started and placed near Nulato. At present no settlement can be made, for by virtue of their contracts they forfeited their deer when they abandoned the herd. The Government wishes to give them every opportunity to get these deer back and if the young men stick for the four years of their apprenticeship, they will receive the number that they originally owned.

Within a radius of a hundred miles of St. Michael there are seven herds. There is a tendency of herders to place their herds as near as possible to market. Regardless of grazing ground, they will let their deer remain at one place until the moss is practically destroyed. Every foot of available coast line near St. Michael is taken up by reindeer herders, partly because of camping and fishing facilities near salt water, and partly because of easy access to market. Owing to this ready market many of the natives killed all males, even those not yet grown, because they knew that the meat could be sold. However, there are times when reindeer meat is not to be found on the market. This is generally in the spring when the deer are poor and travel is difficult because of the trails.

It is the policy of the bureau to continue to introduce deer into new sections of the country. With this end in view arrangements have been made whereby parts of the Sinrock and Angoolook herds will be moved to new grazing grounds. The bureau has promised these natives that it will do all in its power to recognize the priority rights of any man putting a herd in a new locality. This has a salutary effect on this phase of the work. When a herd is located near a village or town, the young men and herders spend much of their time visiting and do not properly care for their deer. There is less dissatisfaction and the men are less liable to sell off their young males, when the herd is not located near a town with several stores.

Parasites.—There are several flies that infest reindeer, the principal one being the warble fly. These flies deposit their eggs during the months of July and August. The larvæ are found as early as October scattered along the back of the deer. Here they remain until May and June, when they work their way out through the skin and fall to the ground. I have been unable to determine the length of time required for the metamorphosis to take place, but I believe that the cycle is completed in one year. These larvæ make holes in the skin and render it practically valueless. A deer that is covered with warbles becomes poor. There is also a fly that deposits its egg, or at least the larvæ make their way into the larynx and in the spring

they are found fastened to the upper back side of the membrane. They are sneezed or coughed out during May and June. I know of no harm that they cause the deer, unless the numerous cases of "crazy in the head" that the herders report are occasioned by this parasite. So far no cure has been found, but I feel positive that proper spraying will do much to relieve the deer and save thousands of dollars to the industry.

Fairs.—Two reindeer fairs were held in this district last winter. The fair at Akiak was presided over by Assistant Superintendent John H. Kilbuck, while the one at Shaktoolik was in charge of the superintendent. At both of these fairs committees had charge of the detail work.

REPORT OF JOHN H. KILBUCK, DETAILED AS ASSISTANT SUPERINTENDENT OF THE WESTERN DISTRICT.

This report has to do with the eastern section of the western district, drained by the Kuskokwim River and its tributaries. During the year all the schools were visited three times, except Goodnews, which was reached only twice, while Bethel was officially visited four times. Besides the visitation to the schools, nine reindeer camps were inspected, one new herd established, and the United States herd of Kinak was combined with the Government herd at Kalkak. A side trip was also made to the schools at Togiak and Kulukak. Something like 1,690 miles were traveled, 330 by motor boat, 175 by dog teams, and 1,185 by deer.

In this section of the western district there are at present four fully established United States public schools, named in the order of establishment: Bethel, Quinhagak, Goodnews, and Akiak. There was a fifth school at Kinak, but it was discontinued after last year, the building being dismantled and moved to Eek. The village of Eek was founded some years ago by enterprising natives from several villages, who started out with the idea of having a school in their midst for their children. Right at the outset a site was reserved for the school buildings, an act of faith which now begins to be a reality. To this place the Kinak school building was transferred and it is now partially set up. The school property is stowed away in the cabins of the natives. The Eek village is on a river of the same name, emptying into the Kuskokwim, on the left bank, about 60 miles below Bethel. It is on high tundra, the country about it being open and stretching out in a plain to the hills at least 25 miles away. The river is fringed with stunted willows and alder, the latter being the principal fuel. Driftwood is picked up on the main river and floated up to the village, a distance of at least 20 miles. There is a rise of about 4 feet of tide at the village. When the Eek school is fully established the population will increase rapidly, as there are many families ready to move to the new settlement as soon as the school is opened.

It would be well if the department realized that this work at Eek will not be a small affair and therefore deserves substantial buildings. The present building is hardly suitable for this open tundra, where blizzards rage unbroken and untamed by timber or hills.

There is a fine opening for a school at Quigillinguk, on the bay about 40 miles from Cape Avinof. There are now fully 60 school children in the village with every prospect of 20 more shortly after a school is opened. The Moravian Mission has established a station here. The church building is so arranged that it can be turned into a schoolroom, sufficiently large to accommodate 50 or 60 pupils.

Each school has its own peculiar conditions to contend with, the principal one being the inadequate force. The majority of the teachers had too many scholars in crowded rooms to do good work. At Bethel an assistant was called in to relieve the situation for a few months. The teachers, however, did their best, and it is to their

credit that they were not altogether discouraged. The attendance was good and regular at all the schools, except at Bethel, where the scholars were more tardy in spite of the efforts of the teachers. The natives of this village were introduced to the white man's dance and they took it up enthusiastically. The consequence was that these dances occurred rather frequently, and as they were carried on into the morning hours, and the entire families attended, the scholars were usually in bed when the school bell rang. The threat to enforce the compulsory attendance law had its desired effect in securing better attendance.

In general, the people led orderly lives, as far as we could see, and there were no reports of drinking by the natives. Three white men concluded to quietly put away the native women they were living with when their attention was drawn to the fact that they were breaking the law of the land. A native man and woman are both under probation of good behavior after having lived together illegally.

The use of poison for catching fur-bearing animals occurs almost every winter and this one was no exception. The white man has been the transgressor. This winter poison was evidently put out near the native village of Apokak and in proximity to the trail used by the natives when going for wood. A native lost all of his three dogs while driving, because they had eaten something that they had picked up beside the trail.

There was a time when a native population of fully 3,000 occupied the Kuskokwim valley, not including the natives on what is known as the west coast, which extends along the right shore of Kuskokwim Bay as far as Nelson Island, with a population of about 1,500 souls. Beginning with the advent of la grippe in 1890, and recurring annually with the arrival of the ships from the outside, the mortality among the natives increased. In 1900 an epidemic of measles complicated with pneumonia reduced the population by one-third and left the rest in a weakened state. At the present time there may be something over 2,000 natives in this valley and the west coast.

The teacher of sanitation, Mrs. Lulu A. Evans, this year examined 508 individuals. Of this number 204 people have tuberculous histories or active symptoms, cough, rapid pulse and breathing, or hemoptysis regardless of temperature. This means that we know that more than a third of the people examined have only a limited time to live. About half of the remainder are pronounced normal, and the rest are below normal. This statement of the physical condition of the natives is alarming, but it is true to the best of our knowledge. The general health of the people this past year was about as it is usually. However, the call for medical attention so demanded the time of the nurse that Mrs. Evans was relieved from her duties in the schoolroom at Akiak. She was detailed to especially look after Akiak and Bethel, teaching sanitation in the villages and the schoolrooms. Greater results were obtained among the school children than among the old folks, the latter being more set in their habits. Special assignments were also given her to visit Tulksak, Eek, Kwigluk, Akiatshoak, and Quinhagak. She has never hesitated to go where duty called her, night or day, through rain or snow, cold or heat.

The annual reindeer fair occurred in January. The interest in this midwinter event was as great as when it was introduced four years ago. There were spectators from as far away as Iditarod. The prizes, furnished by local merchants, were numerous and valuable enough to excite the keenest competition. Everything passed off well. The court had many questions brought up for decision, and the jury is to be congratulated for the impartial decisions it rendered in every case. The competitive examination of apprentices as to the care of deer and a herd was a new feature of the fair. The chief herders also formulated an experimental course of training for apprentices, for the full term of apprenticeship.

Recommendations.—1. That the herds at Togiak and Kulukak be combined, with headquarters at Kulukak. The two herds together would make one good herd, and reduce the expenses.

2. That the Goodnews herd be transferred elsewhere, where the distribution of the deer to the natives could be carried on. The natives of Goodnews do not take to the reindeer industry, and probably never will.

3. That new schoolhouses be built at Akiak, Bethel, Eek, and Quinhagak as soon as possible. At Quinhagak the United States public school is in a rented building. All the buildings at the above places are no longer adequate to hold the school children comfortably, and no teacher is able to do good work in crowded quarters. The school is an attraction to the natives in outlying villages and hence they are moving to them. The schools at Akiak and Bethel will require three teachers in the near future.

4. That the new schoolhouses be made of logs, which are abundant in this region. By dressing all four sides of the logs a very neat and substantial building can be erected. There will be a great saving of fuel. Here at Akiak there is a log schoolhouse and a frame one, the original school. The log house requires about seven cords of wood while the other one will use up 25, and then not be comfortable in cold, windy weather.

REPORT OF ARTHUR H. MILLER, ACTING SUPERINTENDENT OF THE SOUTHWESTERN DISTRICT.

Inspecting the work of the schools in the Copper River, Prince William Sound, and Cook Inlet regions, I have travelled by train, boat, automobile, stage, dog-team, and on foot more than 4,000 miles, covering only a portion of the district.

The question of extending the work of the Bureau of Education in order that it may reach and serve the needs of natives remotely situated from the Government schools now established, appears to me of paramount importance. To attempt establishing a school at every point where a village of 50 or 60 natives is located does not seem to be a solution of this question, nor good policy.

Until the natives living within a radius of 40 or 50 miles of the schools already established avail themselves of the benefits of these schools, it hardly seems good business policy to go to the expense of maintaining numerous small schools. Conversely, the schools now maintained should be equipped in such a manner as to justify the native to come to the Government school and have a means of making a living for his family. Then, after we have offered the natives an opportunity to work and earn a livelihood, the responsibility is not with the Bureau of Education if they will not take advantage of it. We believe if it were possible to add departments of industrial education to the schools at present maintained, such as boat building, carpenter shops for the making of furniture, shops for the manufacture of sheet-iron stoves, equipment for the salting and canning of fish, that the question of getting the natives to move from some distance to the schools we now have would be solved.

If the fund so expended could be made reimbursible, so that the product of the natives' labor could be sold, I believe the natives would thus become self-supporting within a reasonable number of years.

It would be difficult to overestimate the great service the Bureau of Education has rendered in establishing by Executive order, land, fishing, and reindeer-grazing reserves to be used for the benefit of the natives. At Tatitlek, where the fishing reserves have been secured, the income of the natives has greatly increased.

At Tyonek, the Moquawkie reserve has increased the income of the natives from a mere existence to several thousand dollars each year. This will, I believe, insure the success of the Native Cooperative Store. The natives at this place feel much encouraged, and have already expressed their willingness to raise a thousand dollars among themselves to start the store. This amount, with $800 the teacher has consented to loan them, and the snowshoe industry already established, should give the natives at Tyonek a working capital of more than $2,000.

If the fishing output at Tyonek could be sold directly to the consumer as a finished product the financial question would be solved for that village, but the lack of harbor facilities is the one hindering factor to be overcome.

I first visited Tyonek four years ago. At that time an epidemic of measles had just ravaged the natives and their condition was wretched. Too much credit can not be given to those who were instrumental in securing the reserve for the natives, which marks a new era for them.

We believe the time is rapidly approaching when the exploiting of Alaskan natives will be a thing of the past. Though there yet remains much to be done, no one who has known Alaskan natives for a considerable number of years doubts that advancement has been made among them where schools have been established and proper Christianizing influences have obtained.

The plan of centralizing the population would materially assist in the administration of medical relief and adequate supervision. The doctors now under regular appointment can not reach the scattered natives. The doctors as well as the teachers, as far as my knowledge extends, are conscientiously performing their duties. It is no more than just to say that though there are many cases of mistreatment and injustice done the natives by a certain class of undesirables, there are many instances of kindness and assistance rendered them by a majority of the citizens of Alaska.

I desire to call the special attention of the Commissioner of Education and the Chief of the Alaska Division to the need of establishing a reserve for the natives of the Copper River. In my opinion too much emphasis can not be placed upon the importance and value of obtaining this reserve.

Relief of Destitution.—The scarcity of fish and game in the Copper River Valley has caused a general destitution never before known among the natives and made it imperative that something be done to relieve the condition. Consequently, this phase of the work at Copper Center has been forced upon our attention as a first consideration. In order that a policy of merely distributing rations be avoided, it was thought best that all able-bodied natives should be required to do work in return for what was given them; only needy widows, orphans and the sick were supplied with food free of charge.

Approximately 8,500 pounds of supplies were sent from Seattle and in return for these supplies the natives, under my direction, cut the logs, hauled them to ground adjacent to the Government school, erected a substantial log building, 22 by 32 feet, 12 feet high, and whipsawed the lumber for the rafters. The bureau sent from Seattle, the doors and windows for this building and sufficient roofing for the same. The logs are all in place, the openings for doors and windows cut, door and window frames whipsawed and put in, and the rafters up and braced. When this building is inclosed, which should be done this fall, it will be a creditable looking edifice suitable for a public meeting place in which the natives may hold their council meetings or a splendid building for a cooperative store should the natives become prosperous enough to start one.

In addition to putting up this building, the natives have built about 1 mile of excellent fence along the Government road from the experimental farm buildings to the Government school, adding greatly to the appearance and utility of the Government reserve. By doing this work we have not only been able to relieve the destitution among the Copper River Indians, but have at the same time received labor equal in value to the amount expended for destitution supplies.

I have thus been able to give them instruction in carpentry and building. The natives have taken interest in their work, and we believe it reflects great credit upon them. These natives are excellent axemen and loggers. All they need is the opportunity to be developed into useful citizens.

Very little has been accomplished during the past year in the teaching of sewing and cooking, because no woman teacher has been at Copper Center. In response to

the request sent out by the chief of the Alaska Division, asking the natives to plant gardens in order to add to the food supply because of war conditions, the people of Copper Center, Upper and Lower Tonsina have planted larger gardens than ever before.

Each year shows advancement among these natives in cleanliness in their homes and in keeping their yards free from garbage, but there is much room for improvement in the proper ventilation of houses during the winter months.

Diseases have been treated by the medical sergeant of the Army, James E. Young, who has conscientiously administered medical aid to all natives calling at the Army Hospital. In a number of instances he has made trips to the native villages and treated serious cases of sickness with good results.

No deaths have occurred during the year at Copper Center, but five deaths have been reported to us from other points on the Copper River—one at Tazlina Lake, two at Lower Tonsina, and two at Gulkana. Seven births have been reported—four at Copper Center, two at Lower Tonsina, and one at Upper Tonsina.

Centralization of the population, I believe, is the only practicable method for the care and education of the Copper River natives.

If the fishing resources of the Copper River can be conserved for the benefit of these natives, sufficient funds may thereby be derived to establish industries whereby they may be provided with work to earn their living and assistance rendered for the building of suitable homes and a model village established on the splendid site adjacent to the Government school.

The observance of law and moral conditions is well maintained during the teacher's term of residence, but as soon as the instructor leaves the place delinquencies are nearly always in evidence. This is the principal reason why I recommend that a teacher be appointed for 12 months in the year.

In none of the villages I have visited have the natives yet availed themselves of the opportunity provided by the Territorial legislature of becoming citizens. At Copper Center four or five of the young men are preparing themselves to take the examination required, and I believe it is only a question of a few years when many of the younger men will do so in many of the villages.

Estaco Ewan, the assistant teacher, is a product of the work of the Bureau of Education at Copper Center. At the expense of this bureau he was sent to Juneau a few years ago to be operated upon for a tubercular leg. This operation probably saved this young man's life, permitting him to return to Copper Center and attend the Government school where he reached the studies of the seventh grade at the age of 15. He has not only done good work as assistant teacher during the past school year, but the work has been a decided benefit to him, stimulating in him a feeling of commendable pride in assuming the responsibilities of a teacher and awakening in him a realization of the value and benefits of education.

CANNERY INTERFERENCE WITH FOOD SUPPLY.

Owing to the decided shortage in the supply of salmon, the natives of the Copper River have found it proportionately difficult to obtain their living during the year just past.

I have succeeded in securing employment for a few of the Chitina natives at section work on the Copper River & Northwestern Railroad. About 20 Copper River natives find employment at the canneries, but most of them live such a great distance that it is a very difficult matter to get them to and from the canneries. This can readily be done on the coast, where the cannery companies send boats for them, besides supplying them with boats and gear. It is not only expensive for the Copper River natives to get to the canneries, but also expensive for them when returning.

The Copper River Packing Co. agreed this year to transport the natives to the cannery from Chitina and after the fishing season closed to return them to the same point

by train, which would have been a material advantage to the natives, as it would have made it possible for them to get to the cannery in time to get equally good fishing locations with the white fishermen. After I had completed this arrangement and secured a number of native fishermen for them, the company entered into negotiations with the chief of the Chitina natives, making it an inducement to him to bring the natives down the Copper River in a boat. After bringing them to the cannery by this method, with no expense to the cannery, the natives were obliged to get home the best way they could. This, of course, was done by the company to avoid the expense of getting people to and from the cannery rather than to meet the more exacting requirements made by the writer in favor of the natives.

In this report I shall not treat in detail the subject of cannery interference with the native food supply, which was discussed at length in my report of June 30, 1916, but merely state that conditions as therein set forth are increasingly worse during the present fishing season and deal briefly in a general way with facts that I personally observed at the fishing grounds only a few weeks prior to this date.

During the present year two additional cannery companies have entered the field and are fishing in the waters of the Copper River on an extensive scale with modern gear and equipment, and now the Copper River Packing Co., the Carlisle Packing Co., the Northwestern Fisheries Co., and the Canoe Pass Packing Co. are all fishing in the waters of the Copper River above the delta and as far up as Mile Fifty Five.

I am encouraged, however, by the fact that the Bureau of Fisheries has sent a special investigator to inspect the fishing operations in the waters of the Copper River during the present fishing season. This representative of the Government, Dr. Gilbert, of Stanford University, the writer interviewed in Cordova, Alaska, only a few days ago, presenting in detail to him the subject from the standpoint of the natives.

The fact that the Bureau of Fisheries has taken cognizance of conditions on the Copper River not only through careful and thorough investigations by its regular representatives, but also by sending a special investigator this spring to survey conditions in these waters, seems encouraging evidence of a purpose to get at all the facts. I am of the opinion that the Bureau of Fisheries will take the inevitable action of closing the Copper River to cannery fishing, in order to prevent the depletion of the supply of salmon and reserve the waters, subject to careful regulation by Executive order, for the benefit of the natives, who are first entitled to them.

I believe it behooves the Bureau of Education to use all honorable means to conserve the fishing resources of the Copper River for the natives, because of the constantly increasing burden of caring for destitute natives as a matter of policy, but also for the more valid reason of saving this race of people from certain decadence and extinction. With the funds that may be derived from the leasing of these waters, the Copper River natives may be provided with industrial training and education that will during the life of a 20-year lease develop them into a worthy and self-supporting people.

I therefore most respectfully and earnestly urge that renewed and vigorous effort be put forth by the officials of the Bureau of Education toward securing the necessary action to close the Copper River to cannery fishing, reserving that portion of its waters described in my report of June 30, 1916, for the natives, to be leased with its fishing rights in the manner therein set forth and the funds derived thereby expended for the care and education of the Copper River natives.

REPORT OF CHARLES W. HAWKESWORTH, SUPERINTENDENT OF THE SOUTHEASTERN DISTRICT.

The monthly report cards, forwarded by the teachers of the 14 schools in the district, show that we have administered to the educational, social, economic and moral needs of 3,335 natives of Alaska. These are listed in tribes as follows: Thlingets, 2,467; Tsimpsean, 534; Hydas, 334.

From this total population of 3,335 in the district, 1,050 have been enrolled in the 14 schools.

During the school year of seven months, which is the period of time covered by the report cards, we have had 73 births and 127 deaths. These deaths were due mostly to the epidemic of measles that spread throughout Southeast Alaska during the months of January and February. In Hydaburg alone during the school year there were 28 deaths. It is our aim to secure as accurate a record as possible of the vital statistics of natives for the entire 12 months, and thus to ascertain beyond a doubt the increase or decrease in the native population of Alaska.

The entire force of the bureau in the district during the year consisted of 1 superintendent, 1 doctor, 5 nurses, and 28 teachers. The teachers, of necessity, are required to be specialists in kindergarten and primary work, for the reason that 35 per cent of the total enrollment in the district consists of kindergarten children; 38 per cent are in the first and second grades, while only 20 per cent are in the third and fourth grades, 4.8 per cent in the fifth and sixth grades, and only 2.2 per cent in the seventh and eighth grades.

In order to start a uniform school system, we introduced Thompson's Minimum Essentials last fall, and worked the same papers in all of the schools, but this was only one step toward grading. Another step was the school fair at Metlakatla. Our aim was for each of the 14 schools to keep every good piece of work done in any of the varied branches during the year and forward the same to Metlakatla on Washington's birthday for the school fair exhibit. We had planned a contest for the same time between the schools of Metlakatla, Hydaburg, and Klawock, in order to bring those three most progressive schools in the district into closer fellowship, and through good-natured competition in spelling matches, arithmetic fests, prize speaking contests, as well as contests in athletic events, to create a pride in the local schools and arouse enough interest to keep the older boys and girls at home rather than go away to the Indian schools in the States.

The Metlakatla fair, considering the fact that we had most unpleasant weather during the week, was a great success. The entire teaching staff from Klawock, with their most promising pupils, came, also the teaching staff and members of the school, as well as the Boy Scouts squad, from Hydaburg. No greater incentive has ever been given to these three schools than that of the fair. All the advantages of a teachers' conference we had, plus the additional advantage of the boys and girls seeing what others had actually accomplished. All were amazed at the nautical knowledge of the Boy Scouts from Hydaburg in tying some 20 different kinds of knots. Their ability in first-aid work, so necessary in this hour of the world war, and their ability to use the commercial telegraph, won the admiration of all. The prize-speaking contest between Metlakatla and Klawock brought to mind that the natural oratory of the Indian is by no means lost when the boys and girls speak in English.

I have seldom, if ever, heard Lincoln's Gettysburg Address, or the great speech of Patrick Henry, given with more convincing power than when those orations were delivered by boys from Metlakatla. The Klawock contestants at the fair were much younger, but showed excellent strength. Their exhibit was readily granted first place by the judges, and their prize speaker, a young girl of 12 years, won the first honors of the fair, a gold medal, in the prize-speaking contest.

An additional incentive brought out by the fair was that the schools could have bands. Practically every native town in Southeast Alaska has its band. We sug-

A. METLAKATLA. THE GIRLS' BASKET-BALL TEAM.

B. METLAKATLA. SOME OF THE YOUNG MEN.

A. THE NEW CANNERY AT METLAKATLA.

B. OATS AT KLUKWAN, IN SOUTHEASTERN ALASKA.

A. UNITED STATES PUBLIC SCHOOL, WRANGELL.

B. TEACHER'S RESIDENCE, HYDABURG.

A. TEACHERS FOR THE SCHOOL AT WAINWRIGHT AND THEIR FUTURE NEIGHBORS, LEAVING THE U. S. S. "BEAR."

B. UNITED STATES MAIL CARRIER, UPPER YUKON DISTRICT.

Except during the season of open navigation in midsummer, mail for the schools in the interior reaches them over frozen trails.

gested at the fair that a teacher could get his pupils to school at any hour he saw fit, if he offered an incentive. Mr. Hibbs, of Klawock, organized a school band as a result of inspiration received at the fair, and had it meet from 8 a.m. to 9 a.m., and the boys were all on time.

These boys had never played any instrument, but by the end of the year he had trained them so well that they played an orchestra of 16 pieces. This shows that in order to increase the 7 per cent attendance in the grades from the fourth up, we must offer an additional inducement, and if the schools can take the bands of the towns it will greatly assist.

Not only is there the benefit to the schools of such an organization, but it is a physical development to the individual as well. We must start a campaign to create a stronger body for the natives. It is evident to any Alaskan that natives as a race are weaker and have less physical endurance than they had 30 years ago. One reason is that they have not learned the white children's system of play. Confined too closely in the schoolroom without sufficient outside exercise many of the weak-chested boys and girls decline in health.

The industrial development of Metlakatla continues with gratifying success. The old sawmill that was supposed to be absolutely beyond use, with an outlay of only $123.07 for repairs, has cut and sold $2,001.48 worth of lumber. The water line is extended throughout the town and into the school building. The new cannery is being built with lumber cut at the local mill, and native workmen are furnishing the labor. The town is well united in its aims for progress, and we are all much encouraged over the prospect for an industrial and educational center at Metlakatla.

With a trade school established in Metlakatla, also a weekly school publication, with local correspondents in each of the 14 towns of the district furnishing reports of local events, a brief account of current events, and with articles of instruction contained in each weekly issue, I see a most valuable field for intensive instruction. I would have the publication sent into every Indian home in Southeast Alaska, and I am certain that since ours is the age of the written rather than the spoken word, we would give more real instruction to the 3,335 people living in the district than is possible in any other way.

The Metlakatla Commercial Co., which came into existence last year, has built a big store on a strategic corner in the town. Its first few months of business were most discouraging. It now has a paid up capital stock of more than $7,000.

The lumber business at Hydaburg has also been considerably larger this year than ever before. The mill there shows a sale of $4,029.37 in lumber. The lumber market in Seattle has raised the prices so high that the canneries are demanding Alaska lumber now, while only two years ago they could get Oregon fir delivered at the canneries cheaper than the Alaska mills could furnish.

A new incentive has come to Klawock in getting an additional section of the town surveyed and a post office established in the native town. This has been badly needed during the past years.

The towns of Hoonah and Kake, which have been more steeped in tribal customs than most of the other towns of the district, are manifesting a worthy pride. They have cooperated and plan to join the Forest Service in surveying the towns and building roads. Both are almost a mile from their canneries, and both have agreed to furnish the labor to build the proposed roadways if the Forest Service would furnish the material. Tribal homes along the water front are customary in Kake and Hoonah. There are no lots surveyed behind these shore lines, consequently the people, of necessity, are forced to live in houses consisting of one big room, in which are some eight beds in full view of all in the room. The chief of the Forest Service, Mr. Weigle, of Ketchikan, whose most valuable assistance to our work I wish to acknowledge, has

assured me that these two towns would be surveyed in the fall. I am looking for great progress at both Kake and Hoonah.

Regarding Indian lands—a matter which has been brought to the knowledge of all teachers and the superintendent through Circular No. 491 of the General Land Office—I have to report that I have made an intensive application of the law in each town I have visited.

The natives are accused by various white men and by some of the Land Office officials of retarding the development of Alaska. When a settler applies for a homestead and builds his cabin and plants his garden, a native comes there and claims the ground because of former occupation. We readily see the reason of this; an Indian, naturally, does not take any step toward making a recorded claim for an allotment until he sees the white man on the land.

In order to offset this custom I have urged all natives who claim land to get their corner posts set, their notices up, and their applications in the Land Office at once and thus anticipate any future claim by white men.

I have proposed to the Land Office officials that a time limit be set, say until 1920 or 1921, offering to the natives during that period every opportunity to enter a claim in the Land Office for all land ever used by them. After that date they would receive no special favors. From that time on, if they wished to apply for an allotment or homestead, they would have to enter their claims the same as white men.

SECTION 2.—REPORTS BY PHYSICIANS.

REPORT OF DR. JAMES P. MOONEY, JUNEAU.

These two villages of Juneau and Douglas I do not regard as typical, for the reason that there is too much contact here with outside influences. What the natives need is help, not hindrance. Get them out in the open more and give them the benefits of our knowledge of sanitation and public health and you will have done much for the natives of southeastern Alaska.

Our hospital is new, and it will be some time before the natives learn to appreciate its full value. But judging by the way they have patronized it, there will be need of extra accommodations before next fall.

Last November and December we had an epidemic of measles in the village, and very few of the children escaped, but, on the whole, there were few complications. Some of the other villages suffered more than Juneau, and yet I am sure there were many fatalities that were only hastened by the inception of measles. On the whole this has been a fairly good year as regards health conditions.

Our hospital has been full most of the time since the 1st of October, and many times the women's waiting list was two weeks in advance. The men's ward was not so crowded, as a rule. We had 164 admissions up to the writing of this report, representing 3,476 days of treatment. A great many willingly paid the small charge for board—at least 60 per cent. In fact, those who paid were the ones who seemed to appreciate the most what was being done for them. There were 1,750 clinic patients, besides many out calls made in the villages.

During this time I have performed operations as follows: Thirty-two laparotomies, 3 hernias, 2 kidney operations, 3 gall-bladder operations, removing 71 gallstones from one and 23 from another, and removing the gall bladder in still another; 3 amputations, 3 bone cases (resections or parts of humerus, etc., all tubercular). In three instances I removed all the glands of the neck, and two others only part. There were several cases where a gland here and there had to be removed, sometimes under local and sometimes under general anesthesia. There were also 4 curettages, 4 circumcisions, 2 cases of perineorrhaphy, 1 cystocele, 1 radical mastoid, and 1 antrum. There

were numerous minor eye operations, besides 5 major ones, as cataract, enucleation, etc. There was one case of ununited fracture of rib that was anchored, with good results. There have been many cases of tonsils and adenoids that were operated upon and taken home in the afternoons, aside from the 11 cases that were entered upon my register. There was also one case of external urethrotomy.

The above does not include the numerous cases of minor surgery that were done in the clinic under local anesthesia, such as removal of the nasal septum, turbinates, lipomas, amputations of fingers, etc.

We have many interesting medical cases, and some very sick ones too, but with few exceptions they have responded to nursing and treatment. I have in mind one case of malnutrition and gastroenteritis that recovered, and, if there had been no other, the saving of this one little life would justify the expenditure of energy and funds on the part of the bureau. I am looking forward to the time when we may have a training school for the young native girl, in order that she may be fitted for work among her sisters and brothers. With this in mind, I am submitting a plan for enlargement, part of which we have needed from the first and a part of which we will need during the busy winter months, and still another part of which will be needed when we have a training school.

REPORT OF DR. DANIEL S. NEUMAN, NOME.

The following individual cases were treated in Nome: Bronchitis, 173; rheumatism, 134; conjunctivitis, 77; influenza, 38; separative otitis media, 23; keratitis, 20; foot and mouth disease, 15; snow blindness, 13; menorrhagia, 3; endocarditis, 1; syphilis, 1; gonorrhea, 1; gastric dilatation, 1; prostatic abscess, 1; accident cases attended to, 104; confinement cases attended to, 3. In addition to the above there were a good many minor cases which were not recorded because of their insignificance. Eighteen patients received hospital treatment, three of whom were tubercular. One patient was operated on for extra uterine pregnancy; one curettement (puerperal septicemia); one operation for mastoiditis; and one fibroid tumor (uterine) was removed. All surgical cases recovered. During the year 1,500 day and 63 after midnight visits were made to the native homes of the sick; patients receiving attention at my office numbered 3,604; school children examined, 42; visits made to the hospital, 378.

During the year not a single new case of tuberculosis developed in Nome. The additional cases were out-of-town patients. Rheumatism showed a decrease over the previous year, while bronchitis increased, which was due to the severity of the past winter. There were a few serious accidents, but all cases recovered. There was an entire absence of any skin diseases in Nome, although a few cases were treated from other villages. Venereal disease was also on the decline. The natives have begun to take better care of their eyes in the springtime, which accounts for the decrease of snow blindness. There were nine deaths during the year.

The hygienic condition of Nome village is gradually improving. The natives are becoming more employed in the white man's occupations such as mining, freighting, carpenter work, painting and the like.

The Holy Cross Hospital rendered excellent service during the past year, and the majority of native patients were furnished with a private room, which is always preferable to a crowded ward.

With the advance of civilization the natives move away from the Sandspit and scatter all over the town. This feature makes the work more difficult, and more and more time is required, as each year passes, for a physician to render efficient service. But this can not be remedied, and there is no question in my mind but that in a few years the entire Nome village will disappear, and the melting pot of civilization will not only remodel these people, but will entirely absorb them.

Recommendations.—(1) My laboratory work has proven conclusively to me that every patient who suffers from repeated, severe attacks of rheumatism invariably is troubled with an advanced stage of pyorrhea. I believe it is our duty to pay more attention to oral prophylaxis, and all natives should be supplied, not with a cheap and worthless toothbrush, but with a brush with good bristles, having a sufficient amount of stiffness. I would also recommend the use of some good tooth paste. All of my rheumatism patients have been greatly benefited by proper attention to the teeth and the gums.

(2) We should be authorized to exclude from school all children suffering from tuberculosis.

(3) As a good many of the Nome natives are doing well and are more than self-supporting, I believe it is inadvisable to continue free treatment and free medicine. Some schedule should be worked out, charging a small fee for both, which should go into the treasury of the Bureau of Education.

REPORT OF DR. FRANK W. LAMB, NULATO.

A great improvement in the sanitary conditions of this village is manifest. For the past two years all drains have been redug at breakup time and antiseptic solutions sprinkled around the village. All low places were treated with chloride of lime, refuse matter of every description which had accumulated during the long winter months was carted off, all débris burned, and yards and streets raked.

It has been necessary to hire a native to do this work, as at this particular time the natives must move to the lakes for their spring trapping, not returning until June. The people have promised to build their dog kennels at the back of the town before next winter, which will greatly add to the cleanliness of the settlement.

The natives are exhibiting a marked improvement in the care of their dwellings. After thorough and painstaking effort I have succeeded in making them understand that overcrowding and poor ventilation are injurious and dangerous. Many of them have built bunks in which they now sleep instead of on the floor as has been their custom for many generations. There is still, however, room for great improvement in their habits.

Strange to say, the most unsanitary building in the village is the council house, where all public gatherings are held. I advise the destruction of this building this fall or at least a thorough overhauling before the winter activities begin.

All tubercular cases, with the exception of one bed-ridden case, are in fairly good condition. Patients are careful to use sputum cups about the town and in their homes.

The winter of 1916–17 was not so hard for the natives as was anticipated, most of them finding employment cutting wood and the fur market being fairly good. The spring catch of muskrats was also good.

During the past winter I made several trips to the native villages of Melozi, Lewis Landing, Louden, Koyukuk, and Kaltag, and one trip to Tanana, on which occasion I visited all native villages en route. I also visited the reindeer fair at Shaktolik, where I had an opportunity to examine many of the natives of the lower Yukon country. Here I found the same prevalence of tubercular cases as in the upper country. I instructed these natives as to habits and hygienics. On my return I brought with me a small native boy who had sustained a fracture of tibia. After recovery he returned to his home in Shaktolik.

Among the many cases treated during the past year were one of typhus, one of scorbutus, and two fractures of tibia. The following cases were operated on with success: Appendicitis, anal fistula, fistula following appendicitis, and several cases of lacerated cervix and perineum. Several abscesses have been opened and drained and countless minor injuries treated. Fifty-three natives and seven whites were

admitted to the hospital during the year. Vital statistics show 21 births and 10 deaths in the villages of Nulato, Kaltag, Koyukuk, and Louden since July 1, 1916.

I recommend that an addition, including an operating room, be built to the hospital, also that a cabin be built or rented for the treatment of advanced cases of tuberculosis. I recommend the expenditure of a small sum for the purchase of enough lumber for two toilets and the digging of two drains, also that several barrels of lime be furnished to be used in whitewashing and to be sprinkled about the town in the spring.

REPORT OF DR. F. H. SPENCE, BARROW.

(Presbyterian missionary employed by Supt. Shields to visit coast villages.)

Soon after the U. S. S. *Bear* left here last year an epidemic of grippe prevailed for five or six weeks; nearly every one in both villages had it. It was a busy time for one doctor with 500 people to look after, most of them sick. Some of our supply of medicine for a year was three-fourths gone when the epidemic was over.

At the request of Walter C. Shields, superintendent northwest district, I made a visit to Wainwright in March, where I was almost as busy as when here, and even more successful. Cases came from the reindeer herd, from Icy Cape, and Point Franklin. One very interesting case of eye strain from Icy Cape has since come up here to be with me longer, and is improving.

I am glad to be able to say we are not troubled with trachoma here. We have many cases of snow blindness and conjunctivitis, some of them very severe, but where we can obtain the active cooperation of the patient the result is good. A few cases have resulted in a scar and consequent partial loss of vision because of neglect of treatment. Attempting to alleviate pain by cutting is a custom among these people. One woman lost her sight because she had a native make a deep incision over the eye for pain, and I did not learn of it until the sight was lost. We are trying to put a stop to this, but the old "Devil doctor" dies hard.

During the year there have been 28 births and 17 deaths. Seven of the 17 I never saw or knew they were sick until they were dead and buried. All of the seven were at the upper village at Point Barrow with which there is no good means of transportation. When I go up there it means six or eight hours out of the day. Last summer when we had the epidemic and so many were sick here it was not possible for me to take care of those here and those at the Point, so I had them bring the worst cases down here. Because the people in the upper village have not had the advantages that the people have here from your bureau they do not realize the value of human life and are careless and indifferent. There were eight deaths there this year, and only one had any medical attention.

A subauthorization of $50 to be used for food to be given the sick has been a great help during the year in many cases.

During the year I gave a stereopticon lecture on tuberculosis, assisted by Mr. T. L. Richardson, the teacher, using slides furnished by the National Association for the Study and Prevention of Tuberculosis. I also gave three talks on tuberculosis, based on "What You Should Know About Tuberculosis," prepared by the above society and distributed by the Bureau of Education, Alaska School Service. I have also given numerous other talks on hygiene and sanitation. Last week Mr. T. L. Richardson also gave a talk on the above subject.

SECTION 3.—REPORTS BY TEACHERS.

ANNUAL REPORT OF THE UNITED STATES PUBLIC SCHOOL AT KIVALINA, ON THE SHORE OF THE ARCTIC OCEAN.

BY H. D. REESE, TEACHER.

We arrived at Kivalina on September 16. Had we been two days later we very likely could not have gotten from Kotzebue until after the freeze up, as storms set in the day after our arrival and continued the rest of the fall.

We discovered that the school supplies for the year were not here. A native informed us that the steamer could not land them because of storm, that it had taken them north, reshipped them, and that they had at last been landed at Point Hope. Some natives volunteered to go after them. They got ready two skin boats and crews, but three weeks passed before the weather indicated safety for setting out on the trip. Because of severe storms they were four weeks in making the trip. They experienced a very rough voyage, and were compelled to land their cargoes and make camp many times. At last on the 5th of November, with the temperature 15° below zero, they arrived here. Winter had already set in in earnest and several hard blizzards with plenty of snow had overtaken them.

About the middle of October the natives began coming in from up the river where they had camped for the fall fishing. School was opened on October 16, and was in session until April 20. The migration to the whaling grounds forced the closing of school at that time. The total enrollment for the term was 53; the average daily attendance, 29. Every child of school age in the community and several adults were in attendance. In previous years children between the ages of 3 and 6 years were enrolled. We enrolled only three under 6 years of age. We did not believe it in any way advantageous to the small children to attend school in a room already crowded and with only one teacher. The very small children retard the progress of older pupils. Neither did we enroll any of the married people, as we did not consider schoolroom work of value to them, their duties at home preventing their attending a sufficient time to learn reading or any other subjects taught in regular school work. The attendance of pupils who lived in the village could not have been better.

The school is the center of their social activities, and there is no other place in the village where they can all get together. The weather along the coast here is not favorable for outdoor play, so the schoolroom is the place where the children and young people wish to be. In fact the only way we can keep them out at any time is to make hours during which the schoolroom is not open to them. They enjoy and take a lively interest in school work.

Our people are scattered over a wide region. During the past winter only 10 cabins were occupied in the village, while 11 houses were occupied at the reindeer herds and 6 others on the coast and rivers from 12 to 40 miles distant from the village. Two of the reindeer camps were 35 miles each and one about 70 miles from the village. There are but few children in these outlying cabins and they get to school from one to two months each year.

With the increase of reindeer and number of herds more people leave the villages for the deer camps. Surely the reindeer camps are the proper places for the homes of the herders and their families. But this presents the problem of keeping the children in school a sufficient length of time each winter. The houses at the village are so small and overcrowded that it is not advisable to have these children move in with the village people. We expect that next winter a couple of the reindeer families will live in the village and keep these children.

All the young people in the community can speak, read, and write the English language. The children of school age have a sufficient knowledge of English to converse in that language. The past winter two pupils reached the sixth grade

and nine the fifth grade. To assist the pupils in getting a better understanding of the English language, we did two kinds of language work. One was the keeping of diaries. Diaries were kept by third, fourth, fifth, and sixth grades. Diary writing is an excellent form of language work, as it compels the pupils to think and express their thoughts in English. The pupils like diary writing and there is much rivalry in each grade to see who can write the longest and best diary. Some of the pupils are very good diarists, and record not only incidents of the day but their thoughts and opinions as well. They try to use in their diaries the new and big words which they learn in their reading lessons. Sometimes in order to work in some big word the language used to express the thought is far-fetched. Nevertheless it is very good practice and is a great assistance in teaching the pupils to write and speak better English. The other form of language work was the writing of Eskimo folk stories. This work, too, was taken up by the third, fourth, fifth, and sixth grades. Some days each pupil would select an old story, write it and read it in class. Sometimes one pupil would tell the story in the Eskimo language and the class would write it in English. To vary this work occasionally an English story would be translated and read in Eskimo by a pupil and the others would translate back into English. Then the twice translated version and the original would be compared. Sometimes much hard thinking is done by the pupils in order to get the most suitable English word. They like this work very much and it is a rich field for language work, as there seems to be no end to the number of old Eskimo stories. However, many stories can not be used, as they contain parts which are obscene in thought and words. This same objection makes it impossible to use in this work the Eskimo songs. For the small children we made in school the reading charts used. An advanced pupil made drawings and other pupils with the assistance of the teacher made sentences suggested by the drawings. A pupil would then print these sentences. To add a little zest to these sentences sometimes an Eskimo word would be put in. The children read these sentences with vim and they quickly learn them.

A branch of work in which we got good results was sewing. Fourteen girls did regular work in this branch. In regular class work 28 dresses, 12 aprons, many handkerchiefs and towels were made, 17 pairs of mittens were knit, and much lace was made. Besides this the girls and women made many articles of clothing on the school machine, of which we kept no record, as it was not regular school work. At first neat cutting, fitting, and sewing did not count for much with the girls; new material and colors were everything. Untidy seams and fittings were done over until care was practiced.

In cooking, all girls who were large enough were instructed in making bread, biscuit, and doughnuts. Nearly all the women of the village can make bread, but it is not much in evidence owing to lack of flour and poor facilities for baking in their homes. The school girls often bake in the school kitchen for the village people. Biscuit making is the favorite way of using the flour. The school girls display their ability as cooks to the people of the community by preparing and serving a Thanksgiving Day dinner. Thanksgiving Day rivals Christmas with our people, the chief celebration being a big dinner. The dinner is prepared and served at the schoolhouse and the entire community is on hand to do it justice. The food is furnished by the natives and all kinds of native foods and white man foods which can be procured are in evidence. Usually a reindeer for the occasion is presented to the village by some native. Last Thanksgiving the girls made noodles and stewed them with the meat. They also baked bread and biscuits and made doughnuts. Then the women brought all kinds of native foods, which they prepared at their homes. Especially favorite dishes for the dinner are muktuk (whale skin) and berries mixed with oil and reindeer fat until foamy and then partly frozen (Eskimo ice cream). All natives vie with each other in displaying their capacity as eaters. This is a social event anticipated all the year.

The workshop is a great boon to the village. It is in use nearly every day throughout the year. Sleds, kyaks, stoves, tables, chests, stovepipes, ice picks, spears, fish traps, tinning, and all manner of things are made. The village council takes care of the shop and makes an effort to see that shop and tools are used properly. This, however, is not an easy task to do, as the natives are very careless in using tools, and good tools do not remain such long. It is surprising, though, to see the good workmanship the natives accomplish with poor tools. The lumber sent for the shop work is still at Port Hope. So we had nothing but a few boxes for the schoolboys to practice on. They made of these boxes chests for themselves, also a chest for each of the large girls. The shop has never been completed. The walls are but one thickness of lumber and every blizzard puts much snow into the place. It is also hard to keep it warm.

Enough shingles are here to cover roof and walls; nails and building paper were put on last December's requisition. If we get these materials we can complete the shop, and thus save much fuel.

The bathroom is a source of much enjoyment and help to the pupils. Every Friday afternoon and evening the girls bathe; every Saturday afternoon and evening the boys bathe. The other people of the village bathe occasionally, but each one can not bathe often. It is impossible to melt snow and ice with our limited facilities to make sufficient water for the whole village to bathe often. Even to get sufficient water for the school children and three or four of the adults each week, we begin to melt snow Monday morning and keep at it all week. A limited amount of laundry work is done each week in the bathroom. This work we limit to the young people who are in attendance at school.

Some people frequently requested at first to do the family wash there, but because of the small amount of room, we loaned them tubs and told them that the family wash must be done in their homes. Even with the young people we permit them to wash their clothes in the bathroom rather than encourage it. The fact that when they wash clothes in the bathroom they usually take a bath in the water first may give some idea as to how water is valued here. It takes much fuel to melt the snow and ice, and fuel is a very valuable and highly prized commodity here. Also, our supply of coal directs our policy in connection with school, kitchen, and bathroom.

The School Republic has been in successful operation here for several years. The large number of young men and young women in attendance at school is a very favorable condition for its success. The officers consist of president, vice president, judge, two peace officers, two health officers, two commissioners of work, and a truant officer. The officers, with the assistance of the teacher, make the rules for disciplining the school. The peace officers look after the enforcing of these rules. The commissioners, with the assistance of some pupils, whom they choose each day, look after all janitor work. The truant officer keeps the daily record of attendance and looks after all absentees and cases of tardiness. Not only is the School Republic inculcating the principles of self-government and community betterment through working together, but it is a great assistance to the teacher.

The village government is conducted by five councilmen, a peace officer, and two health officers. These officers are chosen by an election in which all the people vote. The council meets monthly and discusses questions for the common good and passes such ordinances as are needed. The health officers are women. Their duty is to inspect the houses every Saturday afternoon. The peace officer informs the people when they are violating an ordinance. The peace officer is a new addition to the village government. We thought there was room for such an officer; we also thought that something new might revive interest and add a little life to the village government. It must not be supposed that the village council has an easy time in governing the village. The councilmen have their troubles. One of the topics brought up at every meeting is "The people no honor the council." Of course the teacher must direct the council and uphold its authority.

Through the council the teacher does much of his village work and settles disputes arising among the natives. Such disputes do not always remain settled, however, and may come up two or three times for settlement. The village council is especially helpful to the teacher when he wishes to introduce something new and which he thinks the people may not take to very well. He has the council to pass it as an ordinance, and then he explains the helpfulness of such an ordinance and puts it up to the people that since it is an ordinance of their own village government they are duty bound to uphold it. The village council is a step in educating the Eskimos to direct their own affairs and to follow leaders of their own race.

Looking after the sanitation of the village is one of the duties of the village government. With this in view the council laid and collected a tax of $2 on each house, which is to be used in paying for cleaning up the village this spring, taking care of the village well, and draining a pond in the center of the village. This work will be done as soon as the snow and frost are all gone. The refuse is to be gathered up and burnt. Also, an ordinance was passed forbidding anyone starting a rubbish pile in the village after this spring clean up. All such rubbish must be put on the ice of the sea or lagoon. The health officers inspect the houses every Saturday afternoon. The floors must be scrubbed and everything orderly before the officers make their call. In previous years these officers were appointed by the council, but the ones appointed last spring for the past year would not serve, because, they said, "The people not much honor the health officers." To give the health officers more authority we had all the people come to the schoolroom and elect two health officers. These officers say that the people "honor them."

All the houses of the village are igloos built of driftwood and sod. They are all built above ground, have floors, ventilators, and are well lighted, but they are too small and crowded. Lack of wood for building and fuel is accountable for this. One fire must suffice for as many people as possible. To get any quantity of wood it is necessary to go from 15 to 25 miles. Even at that distance the amount of wood to be had must be economized in order to last through the winter. Last winter the driftwood was cleaned up along the beach and considerable seal blubber was burnt with it. This wood should be collected in the fall and hauled by boat. This is not always possible, as it is the fall storms which bring in the drift, and these storms sometimes prevail too late into the early winter to permit the hauling of wood by boat. This was the case last fall. Though the scarcity of wood makes crowded house room, the effect of this crowding is somewhat counterbalanced by the outdoor life led by the natives. They take to the tents early in April, scatter over the country and remain so until late October. This practice of tenting and roving for half the year is favorable both for health and acquiring a livelihood.

The village has no fresh water supply in summer. It is on an island with the ocean on one side and a wide lagoon on the other. An attempt has been made to solve the water supply by digging wells. These wells are shallow, being only about 6 feet deep. It is useless to dig them deeper because that is the frost limit and there is no water below the frost limit. Thus only surface water drains through the loose sand into the wells. Last fall, in spite of the unusually rainy weather, both wells were dry. This need inconvenience no one but the teacher, as the natives may just as well camp away from the island where they can get to the fresh water.

There was about the usual amount of sickness among the natives during the past year. A disease went through the village last fall and early part of the winter. The same disease was at Kotzebue last summer and was pronounced enteric fever by the doctor there. No deaths resulted from it at our village but two people had it very severely.

Two deaths occurred during the year. One was that of a man about 45 years of age, who died from the effects of syphilis. His was a chronic case. The other was that of a little girl who died from the effects of burns received last spring. She was in the

hospital at Kotzebue all last summer and was thought out of danger when she left the hospital.

Our community has a large number of cripples. It must not be inferred from the number of cripples that our people are unhealthy. In fact, the health of the Kivalina Eskimos is perhaps above the average.

The people make their living by fishing, trapping, sealing, whaling, and reindeer raising. The village has exceptionally fine fishing. Trout is the chief fish caught. This fish is caught throughout the year but in very large quantities in the late fall, when they are put up for winter use. The sealing at Kivalina is also very good. Whaling is the old-time industry and to be a whaling captain is a position of great honor. The captain whose boat catches a whale has great prestige with his people. Though this industry is not so profitable as it was a few years ago nearly the whole village engages in it. There is a fascination about it which is hard to resist. Then, too, even though the bone is not worth much now, there is a big amount of oil and meat in a whale and the natives use it all. Whale oil is the favorite oil. By the 10th of May the Kivalina boats had caught two whales and one walrus. Because of the break up we have had no communication with the whalers since then. The whaling is done 80 or 90 miles above here at Point Hope.

Kivalina is the center of a very good trapping section. Some years the fur catch has been very large. This past year, however, was an exception. The fur catch amounted to about $1,800, which was about one-fourth of what it should be. For some reason the foxes migrated to other sections but the natives say they are coming back this spring, and then, as if misfortunes never come single, the sealing during the winter and spring was very poor and of land game there was none. As fur is our only marketable product our village was hard hit this winter. The natives say it was the poorest season they have known for hunting and trapping. However, there was sufficient food, but not much variety.

Such years bring forcibly to the natives the value of reindeer. Without the reindeer this past year they would have endured hardships. The reindeer business at Kivalina has grown to be big. Two rivers which penetrate the near-by mountains have broad valleys, protected from the storms and covered with an abundance of moss, which give the village ideal advantages for raising deer. Also, the sturdy character of the natives at Kivalina is an important factor in the growth of the reindeer industry at this place.

We have had a very favorable spring for fawning. The records of the three herds here show about 900 living fawns. The Point Hope herd should have at least 250, which would give our station 1,150 fawns. This makes about 3,400 deer in the herds under this station. Every man and many women and children of our community own deer. This is a condition toward which we have all been looking, yet it has drawbacks as well as advantages. We must remember that the number of deer is yet too small to permit every native being a reindeer owner without seriously retarding the growth of the herders. A few deer do not assist in developing the owner. To develop a man through the reindeer industry he must be the owner of many reindeer. However, our hope is that the ownership of a few will create the desire for more and lead to greater care in saving female deer. The reindeer is the Eskimo's bank account, and in theory a small bank account should make the possessor desire a larger one.

The big thing in the reindeer industry is the facilities it offers us for educating the natives. The reindeer industry is the only industry through which we can get a hold on the Eskimo. Then, too, when we consider that there is no market here for meat and there are other sources which furnish sufficient meat for the natives, killing male fawns for skins is not so bad as it appears on the surface. Fawn skins are badly needed for clothing. Last spring a village herd was started. It is too young yet to demon-

strate its value to the village. A village herd is probably not so important to a village where all are reindeer owners.

There is no mission at Kivalina and the religious work is carried on by the natives, with the assistance of the teacher. The natives conducted a Sunday school throughout the winter. Two teachers were chosen, one for adults and one for children. Each Sunday morning a Bible lesson was studied by the Sunday school. Two other church services were held on Sunday and one on Wednesday evening.

Teachers who have been in the service for a number of years can note with satisfaction that the natives have progressed far. They have also taken much from the teachers' shoulders by undertaking some of the work themselves. Many details of the work which in former years the teacher had to look after, the natives now take care of themselves. Many of the old beliefs which in former years interfered with treating the sick, with morals, and industrial work have passed away, the work of the teacher has become much easier and more encouraging.

An event which means much to natives and teachers who can get there is the reindeer fair. This is a big factor not only in developing the reindeer people but in developing the whole native race. It is creating a spirit of union which is one thing badly needed by the Eskimo race.

ANNUAL REPORT OF THE UNITED STATES PUBLIC SCHOOL AT NOORVIK, IN ARCTIC ALASKA.

By Charles N. Replogle, Teacher.

In Noorvik, perhaps as nowhere else, we have the two extremes of Eskimo character. On the one side the slow-thinking coast native from Deering who moved here less than two years ago, with a new hope to attempt a higher life and a better condition for his children. On the other side we have many natives whose residence has been along the Kobuk River, who are more intellectual, but very slow to adopt new things. They have been drawn to us more by curiosity than a desire to take any real part in a genuine uplift. They came to see, have been made to wonder, and now are rapidly advancing in civilization.

The work in the school has been divided as follows: In room No. 1 the advanced classes from the third year up, with Delbert E. Replogle as teacher, who also is our wireless operator; in room No. 2 the primary classes, under May Replogle as teacher, who instructs the girls in sewing, knitting, and basket weaving. In Room No. 3 is the kindergarten, with Lydia Oreluk, the native teacher, in charge. I have general supervision of the industrial work, the sawmill, the erection of the buildings, the medical work, together with the oversight of the village activities. We have all been busy and find the work growing to such proportions as to require the training of the natives for some of the responsibilities. Our school enrollment this year reached 108 but the regularity was not what it should be.

The school is being held in the natives' own building, erected by themselves and enlarged for the accommodation of the school.

The greatest difficulty experienced in teaching the Eskimos is not in teaching them regarding the facts of life but in getting those facts applied to their every-day living. Instruction has therefore been of the most practical kind.

The morning exercises are largely taken up with singing and telling the wireless news from all over the world, as received at our wireless station. So eager are the people to get in touch with the world that it is common to have the school room full of adults to hear the news. In order to understand it they must become acquainted with geography and history. These studies have given them a comprehensive viewpoint such as was never possible to obtain through the abstract textbook method of

teaching. This has had much to do with the change of the customs of the people themselves. To them the United States and its Government is no longer a matter of a man or two, but is a big tangible reality.

The wireless has done more in one winter to awaken the slumbering intellect of the native than years of abstract bookwork. His education has come to him imperceptibly and has fastened itself upon the consciousness without definite effort on his part. There is no longer any balancing of the "native custom" against the new knowledge.

In room No. 1 a class was organized for the study of electricity and the "radio" code. With the very limited general knowledge of the pupils, the progress was necessarily slow and very tedious.

Entertainments were given this year by the school on Thanksgiving and at Christmas. There was marked improvement over those of previous years. These entertainments are giving the natives confidence and eliminating their shyness. There were great crowds from afar at both affairs.

Carpentry.—With the improved facilities for obtaining lumber there has been some real work done in this line. Our method of instruction has been to teach the adults and apprentice the boys to them. This insures a more perfect working knowledge. All but four men in the village can understand and talk English enough for working purposes. We can therefore give the older men instruction and they are quite proud of the responsibility of teaching the boys. With the growing duties of the station this method was rendered necessary and has proven very successful. Houses were built, floors laid, windows and doors set, frames made and roofs put on homes which have been of practical value. The boys made 9 beds, 4 common chairs, 2 rockers, 4 trunks, and 12 tables.

Boat building.—Eleven boats have been built, some of which were sold to other natives, besides the one built for the station this year. The boys sell their small boats for $15 and $25 each. There is now a 35-foot boat under construction, which would be suitable for a 15 horsepower engine, or two 8 horsepower twin engines. The native who is building it expects to get it into the water in the latter part of the summer.

Sleds.—Fifty-four sleds were built this year—18 of hard wood and 36 from the native birch, found locally. This birch makes a strong light sled and is plentiful in the foot hills. Five of the boys are learning the industry.

Stoves.—Four boys under the instructions of a native man are making stoves. They produce a very good camp stove with oven and fire box which will last about two winters. These stoves are constructed from material sent in by the Bureau of Education and from material obtained here from empty distillate tanks. Twenty-eight stoves were manufactured this year.

Cooking.—Cooking is taught through the mothers of the village. Every woman in the village can bake good bread, and most of them do so, regularly. We have a system of inspection requiring each family to bake a certain quantity of bread each month. This was enforced when they had the flour. It has created the baking habit and has largely eliminated the intestinal troubles of the children.

The native must needs live as much as possible on his own peculiar diet; we have therefore endeavored to teach new and better ways to prepare what he has to use for his food.

Sewing.—Careful instruction has been given the girls in school as well as the women at their homes. This department is under the care of May Replogle and the work has been thorough. Two native girls have conducted dressmaking establishments in the village and were kept busy all out of school hours. At the holiday season they had to hire help to get all their work done. There is a great demand for clothes that fit, and the native women are getting to care more for their neatness than at any time to my knowledge.

In the school, knitting, crocheting, basket weaving, and general sewing are taught. These classes have produced this year the following articles: Ten skirts for girls, 31 towels, 24 handkerchiefs, 5 baby outfits, 21 yarn hoods for babies, 36 pairs mittens, and 1 comforter, also sheets for hospital work. All the industrial work in the adult classes must be done by artificial light from November 20 until February 6. The only light for this country is the electric light, which we could not use very much on account of a shortage of distillate for the mill engine.

Fishing.—Fishing is the great industry of the Kobuk. Fish are plentiful at all times of the year, ice or no ice. The shee, perhaps the finest fish in the world, is found only in this region. It is abundant and weighs from 10 to 85 pounds; 20 to 30 pound fish are plentiful. The shee is caught in the winter with a hook through the ice, and in the summer in nets. Its meat is as white as that of a halibut, and very fat, with a delicious taste. Pickerel abound in the grassy lagoons; 10-pound "mud sharks," resembling cat fish, are all along the river; there are quantities of whitefish weighing from 1 to 5 pounds, caught mostly in the late fall; also smelts in the early spring, together with the innumerable salmon all summer long. Noorvik being in the upper end of the great Kobuk delta is admirably located for fishing. The average catch for a thrifty family for the year is about 6 tons, most of which he dries: this feeds his dog team and helps to buy his flour and sugar for the family, as well as furnish the bulk of his own food. This year a company has been organized, a fish trap secured, and large preparations made for curing the fish in a more sanitary manner. This will greatly add to the catch and increase the income of the natives.

Mining.—Some natives have done considerable prospecting and have shown good specimens of gold-bearing quartz, but no developments have been made. Some have undertaken to guide prospectors to a mythical deposit, only to return with the prospector thoroughly disgusted and with a large fund of experience, both of Eskimo character and of climatic conditions. Five Eskimos work in the mines of Candle Creek and Klerry Creek near Kiana.

Gardening.—There was an awakening along this line this spring. Last autumn we purchased from Mr. Sickler, the Government teacher at Shungnak, a quantity of the turnips, potatoes, and cabbages raised there. This we used for an exhibit and talked up the business for Noorvik. We also grew in our own garden, on the hill by the teacher's residence, some fine lettuce and kale, and we had about 100 hills of celery which attained the height of 14 inches. The turnips weighed about 8 ounces each. These were grown in raw ground the first season, in the frozen tundra where it never thaws more than 10 inches deep in the year. This year we have planted the same ground in vegetables and celery which are all doing finely. We have also cleared about one-quarter of an acre of ground across the river in the willow covered bottom land, that overflows at some seasons. This is a sandy loam and is thawed down a long way. Here we have planted potatoes which had been started in 2-pound butter tins and then slipped out into the hills, and they are doing finely. This garden is only an experiment but looks so well that the natives are planting gardens all about us. An aggregate of about 1½ acres are being planted, mostly in turnips this year, by the natives of Noorvik.

Medical department.—There has been less than the usual amount of severe sickness this year. Four deaths and 12 births are recorded. There were three deaths from chronic tuberculosis, and one child from inflamation of the bowels. One severe case of burns was cured very quickly, and one severe case of ulceration of stomach was cured. One leg broken in a foot-ball game, a compound fracture, was set and put in good form again. Two severe maternity cases were successfully handled. All others were minor cases of colds and such like.

The sawmill.—The greatest industrial achievement, after the reindeer industry, was the establishment of the sawmill. The mill cut during the year 44,275 feet of lumber for the natives, of which the Government received one-sixth, or 7,825 feet,

which was used in ceiling the wireless room, for double floor in the native teacher's house, inclosing the mill shed, and other work such as boats and walks. The slabs were used in making houses, which are built double and filled with moss. In order to operate the plant a company was formed of Noorvik men who transact all business for the exchange of lumber. The lumber sells at the mill for $35 per thousand. There being no logger among the Eskimos, we have not yet been able to secure the good logs that await the man who knows how to get them out. Neither are we able to get all the logs that are needed. Three rafts, totaling 500 logs, have already arrived and some natives are out cutting logs now. There may be a better report to make next year. The mill is a positive success. We are able to make any kind of lumber needed. We need additional planer knives for making rustic and drop siding; also longer knives for planing boards over 12 inches wide. We made about 3,000 feet of flooring this year, some 4 inches and some 6 inches, which is in great favor with the people. With the mill there has grown a strong sentiment in favor of better homes—real homes. One frame house, the first in Noorvik, was built this year. Thus far there has been no accident at the mill. Every precaution and safety device possible is in use. We have partially trained one sawyer, one engineer, one planer man, and a bookkeeper and yard man, who do really good work. The mill can be made to cut 2,500 feet of lumber a day, with good logs.

Mercantile business.—Two men purchased $2,200 worth of goods from a local merchant in Kiana and sold them in Noorvik. The stock was far too small and the cost too great to permit of profit. About $11,000 worth of goods was purchased this year from the various local traders, which if expended at home would have been a good business for one firm. There is not at present enough cash among the natives to buy a stock of goods, but it is imperative that we have a store in the village if we expect mercantile success.

The store could supply the most-needed articles of food and clothing, and leave the other things to the local traders around us.

Logging.—Although everyone logs a little, in a crude way, there has been no systematic effort in this direction as yet. There are nine men working at it who may succeed in making wages, but they need an experienced man to teach them.

Woodcutting.—A wood yard is operated at Kiana each summer by natives from Noorvik. The mercantile company of Noorvik contracted for the Government's wood supply this year and satisfactorily fulfilled the conditions.

Village site.—The village is just far enough from the sea to escape the fierce coast winds, while still close enough to satisfy the hunger of generations for the sea and seal. It is located far enough inland to meet the requirements of the trapper and fisherman and to have an abundant supply of timber. It is far enough down the river for logging purposes and in a slow river current, where the logs can be held easily, and is located at a sufficient altitude to avoid any possible high-water troubles.

Home life.—In this new village the native is no longer burdened with the irresponsible white man coming to his home; the loose morals of the women are less tried than before. The present one-room system of housing is not conducive to chastity, so that the morals of the people are still very low. But a healthy moral sentiment is growing.

Electrical plant.—This new feature of the Eskimo home life is not without its influence on thought and habit. In the semidarkness of the candle or seal-oil lamp the weird fancies and ghostly superstitions of the by-gone days flourished. Electricity is the only safe light in this land, where danger by fire is so serious. Every family in Noorvik is anxiously waiting the installation of the electric light in the home.

Sanitation.—This department is in charge of the village commissioner of sanitation, who is elected by the village annually. He works under the direction of the teacher. This part of the work had special attention. Many lectures were given,

fines were levied, and a village spirit awakened. There are now plans under way for shelters where the dog teams may be housed at a distance from the dwellings, which will materially lessen the filth accumulation in the village. Garbage is either burned or hauled to the ice in spring and goes out in the break up.

Washing.—Clean clothes are now demanded by the people; an unclean native is made to feel his condition. A wash day is set aside by many families and washing is done regularly every week on that day.

Bathing.—This is still a difficult problem for the people in the winter. With their one-room houses and no privacy bathing is rather neglected. Only a public bath-house will solve this question satisfactorily.

Dress.—Wearing apparel is conforming to the native improvement in taste. The fur coat is slowly taking the place of the "parka" for social wear. The natives are beginning to have a special suit of clothing for home wear and a good old-fashioned reindeer-skin outfit for the trail and rough work. The new roofs on their cabins permit the last winter's clothing to be stored for the succeeding winter; formerly last year's clothing was lost because of the warm, rainy weather of the summer.

Health.—The general health is much improved. Tubercular troubles are on the decrease, there being no new cases this year. Chronic eye troubles caused by insanitary conditions and dark houses with repeated snow blindness have given some trouble. Many of the causes have been corrected and the prospects are far better.

There is a great need for a hospital at this place. It is by far the largest village of Eskimos in this section, and is easily accessible from any point in the region. Many cases could be safely handled in a hospital which are now lost. Eskimos respond to reasonable treatment more readily than to overdosing. There needs to be some one who is responsible to look after this matter. The church has appointed a "sick committee" of two men and two women to attend and nurse all cases needing help. The chairman of this committee has become quite efficient and reliable. She can be depended upon to follow instructions. She is training an assistant.

Village government.—The village is governed by five commissioners elected annually and serving without pay. The laws, made by referendum vote, are few but effective. There has been no attempt to escape the decision of the commissioners. The local code covers the local needs regarding property rights, the care of dogs, public duties of residents, sanitary measures, and morality. A tax of 25 cents on each resident over the age of 16 furnishes a fund for street work and improvements. All of the men are willing to do their share of voluntary labor on public improvements. Through this system the village has built an addition to its meetinghouse, which accommodates the Government school at present. This building contains the big tower clock. The tower of the church with its clock face 4 feet in diameter is the center of vision to the village.

The reindeer industry.—Thanks to the reindeer the progress of the people is assured. With the meat for food, the skin for clothing, harness, and leather, the sinew for thread, the horns for knife handles, and the hair for mattresses, the reindeer is a marvelous animal for this country. The institution of the fairs has brought about a lively interest in the reindeer business. Almost every family now owns deer. Cooperation is obtained, which is so necessary in the propagation and marketing of reindeer.

The fair has made the reindeer man a specialist; he studies his profession and he is better fitted for his work than other men who are not in the business. This is a great step forward for the native. The reindeer man is no longer a hunter, fisherman, trapper, carpenter, or miner; he is a man versed in one good business. Not all herders have as yet attained to this stage, but they must do it or soon be out of the business. The two fairs held in this district have done more for the reindeer business than anything heretofore conceived, and should be fostered as much as is possible. These

fairs are conducted with the utmost care and show much thought and ceaseless planning on the part of Superintendent Walter C. Shields. In all the work and progress of the business there has been and yet remains the problem of the herder's family How can the elevating influence of the school reach his children, who in turn are to become the future reindeer men? The herder must be at the herd or lose materially; his children must get to school. If the man is to succeed at his business, he must have the cooperation of his wife. This problem is yet to be worked out in a practical way. We have been trying rotation work; letting the herder and family live at the village for stated periods for the benefit of the school on the children. This has met some of the difficulties, but not all. The plan has made the families more willing to stay their time at the herd. The markets for the meat are in white settlements and the families and herds are often near those places where the downward tendency on the life and morals of the natives is great.

Out-door sports.—The people are great lovers of out-door sports. Football is their chief game. An earnest effort was made to organize a football team but had to be abandoned as the people who watch the game must have a part in order to keep warm. Delbert E. Replogle brought his old college basket ball with him and this was a decided improvement on the old fashioned reindeer-hair ball. Calesthenics and drills were introduced into the schoolroom exercises. Days were given to races of dog teams and reindeer, as well as to foot races of men and boys and even girls. We have an athletic committee with D. E. Replogle as director.

Religious work.—There being no missionary in Noorvik the religious work was looked after by the teacher in charge. The people had regular meetings under the directions of the Noorvik Monthly Meeting of Friends, an Eskimo organization. There were also held meetings for village business, mass meetings, men's and women's meetings, with graphophone concerts, and reflectoscope pictures in the meeting house. Anything elevating or instructive has been fostered.

Printing press.—A small printing press with a font of type could be used by the school to good advantage in teaching composition and spelling. The wireless news could be put into type by the advanced scholars and distributed in the village for the good of all. It would not cost much and the natives are asking for it.

The wireless station.—The wirgless station has been a remarkable success. It has been of great service in the regular course of instruction in history and geography. It is the northernmost station on this continent. Rummaging in wireless shops in Seattle, D. E. Replogle picked up a set of second-hand instruments; then he made some additional ones himself, and with the help of Mr. Walter C. Shields and the Army wireless men of Nome, secured some lacking articles, bringing the outfit to Noorvik in July, 1917. The first message was sent through to Nome on November 27. The aerial was strung just 40 minutes when signals from Nulato were detected, and an hour later Nome was picked up. The receiving instruments were all but one homemade and they have been a success from the start. Lack of meters necessary to the tuning of the station has caused some trouble at times in the sending. The most remarkable thing is that with the few things furnished the station has worked so well. All the difficulties are now in control, even to the replacing of the badly scratched, second-hand Leyden jars by a condenser made from empty distillate cans Our signals are heard at the Army station in Nome, and are distinctly read in Nulato, 180 miles away, with which we now work every Tuesday and Thursday afternoons. We need a better sending set. We have one man to turn the rotary spark gap by hand power; it should be turned by a small motor. The Noorvik Eskimo is no longer an isolated native, but begins to feel the citizenship of the world in his blood. He is making healthy comparisons and contrasts. At first the wireless was to him a novelty, a toy; when the masts were set up he helped for the fun of it. To-day he is anxious for the news and is connected with the world. A wireless message is as the voice of God to him. The psychological influence on him is immense.

ANNUAL REPORT OF THE UNITED STATES PUBLIC SCHOOL AT SELAWIK, UNDER THE ARCTIC CIRCLE.

By Frank M. Jones, Teacher.

The school attendance this year has been large and quite steady. With the exception of a few families nearly all the children were in the village at the opening of school. Parents were encouraged to make every effort to keep their children in school and they did so faithfully. In some cases I know this was a real hardship, with the father away hunting and shortage of fuel in the village. Some needy children were given clothing from the mission and school supplies in order that they might be in regular attendance. The parents' appreciation of their teachers has been a help to us and their cooperation has helped us settle many problems. Night school for adults was popular during the winter.

The beginners and primary pupils under Mrs. Jones's direction have shown good progress. The English-speaking parents of the primary tots were told to speak English to their children at every opportunity. It was easy to pick out in school the scholars so helped at home. The greatest difficulty the teacher has in the beginner's class is making the children understand directions. We believe it is a bad policy to use an interpreter or the Eskimo tongue in school. Of course this makes it hard in the primary grades, but the pupils learn to talk English sooner. Baker's Action Primer was used to teach the small children the use of verbs. The A, B, Cs, chart work, jingles, and songs were also included in the year's primary work.

The upper grades show aptitude for physiology and geography. Arithmetic must be made very practical. Composition is most difficult for the Eskimo child and consequently is most important. In such work as reading, spelling, and copying the children do well. Several showed real talent in drawing. Songs and recitations at Christmas and Easter were beneficial for both children and adults.

If an older pupil was perfect in attendance during the week, he or she was permitted to take home a book to read. These library books were much appreciated and stimulated attendance. Many times have I dropped in at an Eskimo home and found the child reading aloud from his library book. Other children would be listening and the old Eskimo parents very intently trying to understand the white man's talk, the children often interpreting to their parents. The children could hardly wait until Friday to exchange their books.

Carpentry.—Only boards from boxes were available, so the articles made were small. However, a thorough course in the names, uses, and care of tools was given. Composition books with the names of tools, a sketch, and their use were kept by the boys. At the close of school each boy proudly took his book home. This summer the books will be read and reread and thus the work next year made somewhat easier. In many cases the father at home had learned about the tools from the boy. Then he would surprise me by coming to borrow a tool, and instead of making motions to indicate the tool wanted, simply say the name of the tool. Eskimos take no care of guns or tools of their own, consequently need new ones nearly every year. Emphasis was therefore laid on the care of guns and tools. At the close of school an examination was given the boys and the answers were very creditable.

The following articles were made in school: Soap boxes, cabinets, chests, checkerboards and checkers, small windmills, hooks (of deer horn), tops, picture frames, grub boxes, and horn buttons.

Sewing.—The smaller girls made rag dolls, which were given to the babies when finished. The first essentials of sewing were taught them while making the dolls. At the close of the term several small underwaists and aprons were made by these same girls.

The larger girls show talent in cutting and fitting, but are lacking in the patience required for nice finishing. Patterns were cut from brown paper and the dresses modeled from small pictorial designs. Some girls crocheted lace for trimming. The following articles were made: Sixteen underwaists, 4 underskirts, 15 dolls, 2 baby hoods, 8 aprons, 2 caps, 3 parka covers, and 14 complete dresses.

In the women's sewing class the material was furnished either by themselves or from the mission boxes sent from California. In the former case the finished article belonged to the owner and in the latter case the garments were distributed to the needy. Miss Hunnicutt was ably assisted by Mrs. Jones in conducting these classes. The women were glad to have the social gatherings and to learn more about sewing. The men would bring the little sewing machines just before class and carry them home after class was over. Nearly a score of hand machines are in the village, so the work was rapidly done. The course was made as practical as possible and the use of English encouraged. Enthusiasm and gossip kept up the interest.

Cooking.—All the older girls received instruction in making light bread, cookies, doughnuts and biscuits. Several women of the village were taught how to make light bread. The average Eskimo stove is unfit for use in baking bread, so the schoolroom stove was many times called into service. The number of ranges in the village is increasing. The Eskimos realize that it pays to buy a good substantial stove, one that holds the heat and bakes well. Cleanliness was emphasized, and all girls were made to don clean aprons and caps before taking their cooking lesson. They took great delight in washing the utensils after use. One reindeer boy showed great interest and ability in cooking, so he was taught how to make different kinds of cookies and cake. He was in great demand when in the village and made quite a little money by his cooking.

Village improvement.—Three new cabins were erected last fall. Nearly all the cabins in the village are well floored and have one or more windows. In all the cabins you can stand upright with ease and some have 8½ or 9 foot walls. Many roofs were raised last fall, thus giving more air capacity and standing room, two things badly needed in the crowded houses. Practically every family now has its own cabin, a condition making for better health for the natives.

The Friends Church, owned and constructed by the Selawik natives, is a large log structure 25 by 35 feet. It was completely finished and floored last fall. Four large windows furnish light. An orchestra of five pieces was successfully trained, and appeared several times in entertainments in the church.

Shelves and hooks were introduced for the first time in some of the cabins, and an effort was made to have all the women keep their clothes hung up and off the floor. The regular scrubbing of floors and frequent washing of clothes were drilled into the women. A strict house-inspecting committee of the neatest Eskimo women was effective in keeping up the standard. Cupboards and tables are more numerous and each year more Eskimos eat from tables and sleep in clean bunks. Thus the years of drilling and exhortation by the teachers begin to show results. The Eskimo men frequently ask about plans to build or improve their houses or their furniture.

Village government.—At a meeting of the village people in October the formation of a village government was accomplished by the election of the following officials to serve for one year: Head commissioner, commissioners of morals (one man and one woman), commissioner of destitution, commissioner of safety (marshal), and commissioner of sanitation. The school-teacher was the adviser of the local officials throughout the year.

After the election all the people promised to stand by the commissioners and to obey the rules they might make. Definite duties were laid out for each official. Two women were elected and served very well. Some difficult problems occurred during the year, which were satisfactorily handled by the commissioners. The Eskimos take the idea of self-government very seriously. Occasionally the commissioners of

morals and safety were called upon to exercise their power; during our absence at the Noatak fair they used it effectively on a white man who insulted an Eskimo girl. This is a step forward, as heretofore an Eskimo would scarcely ever lay hands on a white man for any reason. I believe the satisfactory moral condition of the village is due in a large part to these upright commissioners, who were not afraid to do their duty.

Destitution in the village was reported to the proper official and relief was extended by the village. This took quite a burden off my shoulders, as it is often hard for the teacher to distinguish between the needy and the professional beggar. The commissioner knew the actual case.

Vagrant dogs were corralled by the vigilant marshal and those showing signs of sickness were promptly shot. Trouble of any kind, and unsafe trails were also reported to the commissioner of safety. Reporting cases of sickness and helping to improve living conditions were the duties of the commissioner of sanitation.

Health and sanitation.—Education of the natives regarding personal cleanliness and hygiene has reduced sickness appreciably. This can be easily seen in the improved health of the babies. Many new ventilators and higher roofs give more air capacity to the cabins. We were unsuccessful in a few instances in getting the women to keep the cabins cleaner. The old people do not readily accept suggestions from the teacher in regard to cleanliness. The young people, on the contrary, listen and learn. One large family is continually filthy. A little girl in this family has a large rupture just below the navel. We bandaged it, but of course the relief was only temporary. A physician is needed to operate, but as there is none at Kotzebue the case must wait until one is available. Several cases of eye trouble have been treated. Snow blindness and subsequent irritation often cause a white film to grow over the cornea. Argyrol and boric acid were effectively used in these cases.

One Sunday morning we were awakened by a violent pounding on the door. I arose and found a native woman with her 5-year-old boy. He had fallen out of a bunk, she said. Examination showed a broken arm. Mrs. Jones administered the anesthetic while I set the arm. In a few weeks the little fellow's arm was entirely healed.

A few cases of ptomaine poisoning occurred, but prompt action always resulted in relief and cure. The people have at last learned that rotten fish weakens their stomachs and makes them more susceptible to disease, if not directly poisoning them.

Many of the advanced Eskimos come to ask me questions about the location of the bones, organs, and functions of the body, thus showing an awakening mind and with it the doom of superstition. To be sure the old "medicine man" still practices among the "Ipamee" (old Eskimos), but the younger generation laugh at him. The young people have a real knowledge of the body and the "Doctor" can not hoodwink them. One "medicine man" comes to me frequently for medicine. He always says it is for his wife. Superintendent Shields in his talk at Selawik hit the old "Doctors" hard, and his speech will long be remembered.

Only three deaths have occurred during the year; two being long-standing cases of tuberculosis and one of old age. All were adults. Mrs. Jones has helped me in many infant cases and credit is due her for her part in saving the lives of some babies of the village. Over 20 births have been recorded with no deaths.

The schoolroom, a warm stove, soap and water prove quite an attraction for the children. So baths in the schoolroom are frequent.

Garbage of the village is raked and burned or thrown into the river. The natives leave the village before the snow melts and return only at intervals until fall, so the garbage problem is easily solved. Living in tents during the summer makes the Eskimos sturdy and strong. If they were cooped up in their cabins constantly, the race would soon deteriorate.

Industrial life.—The fur catch was plentiful during the past winter and the prices good. Food has been expensive, as usual, but most of the natives have had flour, sugar, and tea in their homes all winter. Competition between the local stores has benefited the natives, also the policy adopted by one store of keeping the price constant on food articles. Fluctuations in price bewilder the Eskimo and invariably get him deeper in debt.

The financial condition of the village is better now than ever before. As there were no severe storms this winter the traps set were not lost and could be well attended. Many natives have paid their old debts. Some, of course, will be in debt until they die. One man trapped 66 minks, another 23 foxes (mostly white) last winter. These were the largest catches reported.

Some freighting has been done by the natives at good prices. A few others have worked in the mines at Candle or on the Kobuk. Several make money by working on the river boats during the summer. The Selawik native is industrious and as a rule honest.

In the "shipyard" there are now eight boats, seven sail and one gasoline. There will be two new ones constructed this summer. The reindeer boys also have a boat of their own. Selawik has more native boats than any other village near it. Some of the lumber used in the boats came from the States, but most of it was whipsawed and dressed by hand.

Fishing furnishes some support in the summer, but the catch is not dependable. The ownership of deer is the aim of many natives, and some invest in the purchase of reindeer everything they make each year. This form of savings bank pays good interest and is safe.

The reindeer.—Fawning time this spring was not attended by such cold weather as in some years, consequently fewer deaths of fawns occurred. The reindeer boys watched carefully night and day during this period. The natives realize every year that the fur catch will sometime cease and the deer man then will really come into his own. I camped a week at the largest herd during fawning time in order to oversee the work and learn more of the industry. The reindeer boys seemed to appreciate the interest shown in them and did their best.

Sale for Selawik deer meat has been good and the demand greater than the supply. The price varied from 12½ to 20 cents per pound. The recent reindeer association organized at Noatak has fixed the price at a minimum of 15 cents.

Six deer men (two with their wives and children) made the trip to the Noatak reindeer fair. They returned full of "pep" and knowledge gotten there. Mrs. Jones and I also went, traveling farther than any other teachers in this district to attend a fair. What we saw and heard convinced us that the fair was a big thing in the education of the reindeer men. I have no doubt they will talk for years about the things seen and learned there. The spirit of earnestness, discussion of problems, competitive deermanship, and exhibit of handiwork can not be valued in dollars and cents. The small number of prizes made it difficult to properly award them. The giving of prizes, even though of small value, stimulates competition. However, the ribbons were proudly received and the spirit of earnestness could not be doubted. The reindeer fairs are to the Eskimos what conventions and institutes are to the teachers in the States.

ANNUAL REPORT OF THE UNITED STATES PUBLIC SCHOOL AT UGASHIK, ON THE ALASKA PENINSULA.

By WILL A. WILSON, TEACHER.

July, Alaska's harvest time, was very profitable to the natives of this village, as they then reaped over $3,600 in cash laboring in the salmon industry.

As soon as the last ship was gone all of the natives, as is their custom, left for the beautiful Ugashik Lakes, where they dry their fish for winter consumption.

I was unable to go with the crowd last fall as I was expecting the school supplies and waited here to receive them. About the second week of September the natives began returning to the village and the children entered school as fast as they arrived.

October 24, John Nichols, a half-breed, arrived in a Columbia River boat with some of our supplies from Nushagak. The weather had been very rough and he and two small boys had been stranded on a flat near Naknek for several days before they got a tide high enough to float them. After landing the supplies here they left for Port Heyden October 29. After crossing the Ugashik bar they found the sea so heavy that when they tried to run into Chegong Creek the boat capsized. The two children were lost. After drifting with the wreckage for about four hours, Nichols was washed ashore almost exhausted. Fortunately he was found and cared for by natives who were trapping at that point. We sent natives from here to attempt to find the two boys, but the bodies must have drifted out to sea, as our people have been unable to find them. Nichols's entire winter outfit was lost.

School work.—The attendance was very good this year; the children were in school practically every day they were in the village and able to attend. The children from other villages always came to school when they happened to be here.

In addition to the textbook instruction, the girls, under Mrs. Wilson's guidance, made underclothes, shirts, and dresses for each child, and they are very proud of their accomplishment.

Each child took a bath in the school tub once a week and changed clothing. Monday morning, after our family washing was done, the older children used our washing machine and washed all of the soiled clothing belonging to the school children. Tuesday the girls ironed these clothes, and each child's towel and clothes were placed on the shelves ready to be used after the next bath.

Mrs. Wilson taught cooking to the girls and two of the boys; each child was allowed to take home a portion of the baking for family use. Some of the whites who have no cooks were persuaded to furnish flour and other materials from which the girls made bread, cakes, and pies, two-thirds going to the men who furnished the flour and the rest to the girls. The girls take a great interest in domestic work and with the proper surroundings would make good housekeepers.

We were hampered a great deal this year on account of being unable to get our supplies. The boys and I expected to paint the school buildings inside and out this year, but the paint is still in Nushagak; visitors to the village are suggesting whitewash. Our manual training work this year consisted of making dog harnesses, one new sled, and repair work on others. The apprentices made reindeer harness, and the other boys made some boat models of such material as we had at hand. After Christmas the boys polished ivory which I bought at Nushagak last year. We also lengthened the flag pole 16 feet.

Entertainment.—In November we began practice on our Christmas entertainment which consisted of songs, flag drills, recitations, and a little play entitled "Mother Goose's Christmas Party." Each child in the play was costumed for the part he or she was to take. The play gave a great deal of work to the children and much benefit was derived from the practice. At 4 o'clock on Christmas Day every one in the village was here and enjoyed the entertainment and the prettiest Christmas tree they had ever seen, an evergreen tree which I hauled about 80 miles for the occasion. This year many of the natives placed presents for one another on the tree and every man, woman, and child received a present. After the distribution of presents a lunch consisting of sandwiches, tea, and cakes was served.

The birthdays of Lincoln and Washington were celebrated with patriotic ceremonies.

Medical work.—There has been a great deal of sickness in the villages of this region during the past year, and almost everyone is afflicted with a severe cold at present. Medical assistance was rendered 797 times during the year. The prevailing trouble, of course, was tuberculosis. We had nine cases of pneumonia, one of milk fever,

one of abcessed breast, four cases of severe frost bite, two of gunshot wound, and one case of foreign body in the eyeball caused by explosion of shotgun shell during process of loading. We handled all of these cases in the school, securing good results. Two of the pneumonia cases were fatal. In June I took the woman injured by the exploding shell to Naknek where Dr. Rosson, of the Alaska Packers' Association, removed the portion of shell from the eyeball. While I was away with this case, a native boy shot himself in the arm with a shotgun shattering both bones in the lower arm, destroying the joint, and breaking the bone in the upper arm. He was taken to the schoolhouse where Mrs. Wilson dressed the wound and stopped the hemorrhage. She then sent him to Naknek on one of the company's boats, where Drs. Rosson and Shafter operated on him. These cases were handled at Naknek through the kindness of Messrs. Smith and Nielsen, superintendents, as it was almost impossible to get the cases to the Government Hospital at Nushagak.

The medical work takes up a great deal of my time; it is hard to refuse to go to the other villages when they ask for aid. Ugugŭk is 60 miles from here and Upper Ugashik is 15 miles, so I am kept busy when they have much sickness there. Many cases have been brought here from other places for treatment in wintertime. During the past winter we have been short of many of the medicines we needed and we have no cough medicine of any kind or any liniment, as the supplies for last fall have not yet arrived from Nushagak. Dr. Borland sent some of the supplies by a man who was coming this way, but he could not bring a great amount. Dr. Borland was with us for three days in February and did some dental work for us.

During the winter I traveled by dog team as follows: To Nushagak and return, for medicine, 570 miles; to and from Naknek, taking child to Dr. Borland, 240 miles; to Uguguk and return, to treat a fractured leg, 120 miles; 36 trips to the upper village and return, medical calls, 1,080 miles; trip to reindeer herd and return, to treat a frozen boy, 60 miles; total, 2,070 miles.

There is no fund for this expense and if I had to hire a team it would have cost $517.50 for dogs, sled and driver, besides provisions and dog feed. I own my own team which cost me $140 and used during the year 3,186 fish valued at $288.95. Of these fish I caught and dried 1,760 of them myself during my last summer's vacation.

On one trip I was caught in a blizzard and spent two days and three nights in a tent, without any stove or provisions. I had two native men with me and gave each of them a fish, took one myself, and kept the rest for the dogs. It was a trip we should have made in a day, as I took only tent, medicine, and dog feed; it was an urgent case and I felt that we could make the 60 miles in one day. It looked fine when we started, but when we were out about three hours the blizzard struck us so hard that we could not see. I would have perished on that trip had it not been for the natives and the animal heat from the dogs. The natives furnished the common sense and the dogs the heat. On the third day we started again, although it was still unfit to travel, but we made a trapper's camp where we found food and shelter, but we were "all in."

Besides these trips I visited each of the herds once a month. When I was away Mrs. Wilson taught school. She did this that I might care for the sick although she was not under salary.

We have the good will of every native within a radius of 300 miles and a feeling that we have done our duty to those in need.

ANNUAL REPORT OF THE UNITED STATES PUBLIC SCHOOL ON ATKA ISLAND, ONE OF THE ALEUTIAN ISLANDS.

By Amos B. Carr, Mrs. Ella D. Carr, and Leland E. Carr, Teachers.

School began September 11, a few days after the last visit of the Coast Guard steamer. Our day-school enrollment was 17, and night-school enrollment 13. We held night sessions for the adults until the trapping season began. These sessions were attended

with much enthusiasm and interest. Our village chief attends regularly and has made great progress in English.

Day-school work.—The children have made wonderful advancement this year in using English. The old women of the village ridiculed them so much that for a while it was very hard to get them to speak English but since they have learned considerable English we hear it spoken quite often among the children at play.

They are excellent in memory work, hence spelling is one of their favorite subjects and they spell very well indeed. They are somewhat slow in arithmetic; we are trying to make it as practical as possible. The children are drilled much in changing money, buying groceries, and selling furs.

They like hygiene and have learned the meaning of "germs," etc. We especially emphasize the ill effects of alcohol and tobacco, as all the adults in the village make "sour-dough beer" and use tobacco.

We have been trying the phonic system of teaching reading to the beginners this year, and can declare it a great success. The children enjoy it and are learning faster than the other beginners did. The children all sing the old favorite songs and a number of motion songs.

On Monday afternoon they draw and paint. They have made some very good pictures of objects with which they are familiar. On Tuesday and Thursday afternoons they sew, and this year they outlined a quilt. They made drawings of seals, foxes, reindeers, and other animals, and transferred them to white muslin, then outlined them in red. They also knitted a pair of mittens each, and a cap each, and sewed for each pupil two aprons, one underdress, and one suit of underwear. Before Christmas they made gifts for their parents and friends; hemstitched handkerchiefs, sewing bags, pin cushions, and doilies, while the little folks hemmed towels, made iron holders, and doll dresses. One afternoon each month is devoted to patching and mending—boys included. While the children sew the teacher tells or reads stories to them. On Friday afternoon they learn new songs, tell stories, and learn new games.

Wednesday afternoon is devoted to instruction in sanitation, hygiene, and cooking. The children have learned what foods contain the most nutrition; what to get for invalids, and how to cook a few simple dishes for everyday use. The children are young and we have not accomplished as much in cooking as we would like.

Sanitation and health.—The natives take pride in keeping the streets clean; they are graveled each year, and all refuse is carried into the bay. The houses are scrubbed triweekly, and bedding is aired every fine day. Some washing is done every day in the week. Windows are opened at night and every fine day, as the natives are learning that fresh air means health. We have been fighting lice ever since we came here. Lousy children were in disgrace and were placed in the "lice row" in school. This year we have not seen a louse on a single child. We are really proud of this achievement.

The health of the village was very good this year, with the exception of a peculiar siege of dysentery and vomiting which broke out last fall among the children and lasted from three to six days. We cared for them the best we could and all recovered. There were no deaths. Four babies were born, all fine strong girls. We gave special care and attention to the babies, instructing the mothers as to the best method of feeding and clothing them. The mothers listened to our advice and, in a measure, tried to follow our instructions. The children all run to the teacher when they get a cut, burn, or scratch. They have learned that sores heal readily when given proper care, and they do not want their mothers to put old rags on their wounds.

Occupations of women.—During the winter months while their husbands are away the women have little to do but weave baskets. This is very tiresome, close work, and we are discouraging it to some extent. We tell them to get out and walk or fish on nice days, and leave their weaving for stormy days. After much persuasion we succeeded in getting some of the women to set traps near home. One woman caught

two blue foxes, which will probably net her close to $100, which is more than she could make in a year by basket weaving. The outdoor exercise also improved her health.

On Thursday afternoons the women all come to the schoolhouse to sew and do fancy-work. There is much rivalry among them to see who can do the nicest work. They have made the following articles: Ten crocheted doilies; 7 pairs of pillow slips, hemstitched; 5 knitted sweaters; 18 pairs of knitted mittens; 12 crocheted caps; 12 middies; 10 white dresses; 10 aprons; 12 underdresses; and 12 nightgowns. Besides these articles many yards of lace were crocheted to trim the skirts and dresses.

While the women sew the teacher instructs them in hygiene, cooking, and general welfare subjects. They are good listeners, but rather poor conversationalists. However, I have learned more of their wants and desires during these afternoon talks than by any other means.

Occupations of men.—Last summer we purchased a net and with the aid of the men of the village secured enough fish to supply the whole village with salt and dried fish for the winter.

The men hunt eider down, eggs, and sea lion in the summer; eider down for quilts, and the sea lion for use in making shoes and bidarkies. This year has been a bad one on trappers; there has been so much snow. The natives say the worst in years. In spite of all drawbacks they have done very well.

The total number of blue foxes caught was 169; silver gray, 33; white, 2. The total income from foxes was $8,096; $375 was paid out for labor; $200 for basketry. The total income of the village was $8,671. This makes a per capita of $135.48 for 1917 to compare with $24.45 in 1912.

Native store.—The increase in the income of the village is entirely due to the native store, which was established here four years ago. The natives receive the full value of the foxes sold, and as each year passes we are getting a larger stock and are able to give better prices on goods sold. The new store building which was erected last summer has given the natives confidence in the permanency of the establishment. They are proud of the store and think they are fortunate indeed to be so favored. The chief with all his people wish to express their appreciation to the Bureau of Education for the school and especially the store. Their homes are better furnished; they have warmer, neater clothing; better and more food; and even a few luxuries are now available.

Buildings and improvements.—Besides the store building there have been erected four new frame houses, four toilets, and a silo. Water is piped from a near-by spring through the village and into the school building. A faucet was placed in the center of the town and all can get good water without tracking through the mud up to the spring. Five new dories have been built. All the new houses have been painted this spring.

Last January a severe storm from the northeast washed away the wall in front of the schoolhouse, and for a time we thought it would carry the building out, but the sea subsided before that happened. The men put up a new wall which can be only temporary. Nothing but a cement wall will hold against the great seas which surge in here in wintertime.

Stock.—We now have seven head of cattle. The silo came up in September and by the time it was erected it was quite late for ensilage, but we filled it about half full. This winter was so severe that the cattle would have perished had we not put up ensilage. During the summer months they get fat, and during an ordinary winter they can secure almost all their food out of doors. It seems to be an ideal place for raising stock. The reindeer are increasing. No accurate count has been made, but we estimate that there are about 75 on the island. There is grass and moss enough on the island to feed a large herd.

Agriculture.—Last spring we planted one crate of potatoes and in the fall when we dug them up we found only little marbles, about 20 pounds of them. This spring the

natives planted gardens, and we have two school gardens. Turnips, radishes, and lettuce are planted. Conditions are not favorable for gardening, as seasons are so variable. Every year, however, gardens are made and sometimes an abundant harvest is reaped.

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

By Chesley W. Cook, Teacher.

There has been noticeable development in the village during the last year, industrially and in classroom work. The most marked advance has been among the younger men, who have been engaged in cutting piles and logs for mines at different places on Prince William Sound; in cutting logs for the sawmill at Cordova, and in furnishing piles for fish canneries. In addition they have sold six or seven thousand dollars' worth of salmon to the canneries. Many have worked by the day at mines as assistant cooks and laborers and in other capacities. I believe we should feel encouraged about this, because in former years the natives worked only when driven to it by necessity. As I write I do not know of an idle man. They are all either fishing for salmon or working at the mines, not because they are forced to work, for at this season of the year they can live without effort, but because they wish to earn money. The efforts of the bureau in this village have certainly had a stimulating influence upon the natives industrially.

We have made fishermen of the natives, and fishing has come to be a great summer industry of the entire region. Factors which have created a demand for the native fishermen are their knowledge of the local waters, legislation in favor of local fishermen as opposed to nonresident fishermen, and the procuring of reserves which permit us to control the shore fishing within them. We should be able to control all the waters within the reserves. As early as January the canneries began contracting with the natives for their services as fishermen during the summer. At one cannery natives have been made the "major crew." All the canneries have been willing to employ all the natives that could be secured, some of the companies calling at the village and transporting the natives to their canneries. In causing the men to work steadily and to earn money we have accomplished much of what we set out to do. The unfinished phase of this part of the work is to teach the natives to lay aside a part of their earnings, to create a reserve upon which to draw in times of need. In this we have not made much progress, though they are acquiring more substantial property in house furnishings, boats, and engines.

The school enrollment increased to 62 this year, overcrowding our rooms and making it impossible to give sufficient time to all phases of school work. We are in immediate need of another classroom and teacher. We are now conducting classes from the kindergarten to the sixth grade, as well as doing industrial work with both boys and girls.

Our shopwork reached a standard this year that I have been striving to acquire for many years. We were able to take in outside work and put the schoolboys upon it. We succeeded in building a 28-foot launch with our training class, and the boys were thus able to earn something as well as to have the training. This successful effort brought inquiries from several quarters as to whether we would accept orders for boat building. I believe that there can be quite an industry worked up along this line if I can be relieved of some of the classroom work in order to devote my time to it.

Another new phase of the work is the introduction of games in the lower grades by Mrs. Cook. This has developed alertness and stimulated the use of English. The children will use English in playing a game if taught the game in the English language. We have also found that the earlier a native child enters the school the better and faster he advances, as he grows up in the language and ways of the school.

In our instructions we are directed to report upon our success in agriculture. There is not much that I can report about that, as this is not an agricultural section. Each year I prepare a very small piece of ground and raise a few vegetables, but the production never pays for the effort. There is no arable ground here; it is tundra, which must be stripped of moss, drained, dug up, cut into fine pieces, mixed with sand and gravel and fertilized; then, if the season is favorable, one can raise turnips, cabbage, peas, lettuce, and radishes. We can prepare the soil, but we can not govern the weather conditions. We have had but two favorable summers out of the seven I have spent here. The natives have never followed my lead in gardening to any extent, and I have not encouraged them in it for the reason that gardening comes at the same time that the fishing is being done, and the proceeds of one day's fishing would buy more vegetables than a garden would be likely to produce in an entire summer. It seems to me that it would be impractical to encourage agriculture under the conditions here.

We should very much like to install a sawmill, have the natives cut lumber for modern houses, lay out the village in lots and streets, and to construct a water and sewerage system. While I believe the native should usually pay for what he gets, yet in introducing these new undertakings the bureau must expect to take the lead and bear the expense. My idea of conducting the improvement would be for the bureau to advance the amount necessary to buy and install the sawmill; to assemble the natives and make them acquainted with the project; to get them to promise to set up the mill; also to pledge themselves to secure logs and saw lumber enough for a house within a certain time. After the mill is completed we should get them to build additional houses within certain periods, and consent to a survey of the village and a plan of drawing for lots, under the supervision of the bureau. We started fishing in a similar way, furnishing a seine and dories. We had our ups and downs, and at times I was very unpopular, but we have a fishing industry to-day. In a few years we could have a model village. The task is hopeless as long as log houses are built in the same old hit-and-miss way.

The natives observe the law as well as the whites, and often better. Often they are encouraged by whites to break the law, particularly in taking valuable skins, such as sea otter, which are protected. Much the same conditions exist in regard to morals. They follow the examples set by a certain class of white men.

ANNUAL REPORT OF THE UNITED STATES PUBLIC SCHOOL AT KLUKWAN.

By Fay R. Shaver, Teacher.

Shop work.—On account of extremely cold weather last winter there was much time when we could not use our shop. Although there was not so much work done as formerly the quality was up to the standard. The younger pupils made toys, boxes, tables, etc., besides helping to make sleds and stovepipe. The older boys made sleds; boxes, tables, galvanized pails, camp stoves, heaters, dust pans, stovepipe, etc. We could have made a dozen more heating stoves and sold them, but were unable to secure the drafts and legs, which are cast, in time for use. The heaters made were larger than before and sold for $10 each, making a good profit for the workmen. Tanks for cooking the oil out of fish were made of galvanized iron and sold for $17 each.

The shop has been a great help to the people of the village. It has saved many trips to Haines, and often the article made was more suited to the needs of the native than any that could have been purchased. Many good suggestions were given by the natives and followed to advantage in our work.

Agricultural work.—Several new experiments were carried on in agriculture. Kafir corn grew to about 5 feet in height but did not mature; beardless barley grew well and matured a fair crop. Canadian field peas proved a great success, most of the crop ripening and furnishing an abundance of forage as well as seed, which will prove of great value here. Mangels grew 18 inches long; sugar beets did well; millet just began to head when the frost came. Alfalfa made a good growth; it has not been winter killed since I began to plant it two years ago. I cut two crops last year and the season was dry. Corn did not do so well as usual; potatoes matured a good crop and were dry and mealy; beets grew nicely. Swiss chard was especially good, the stalks being about 3 inches broad and 16 inches long. Tomatoes were ripened out of doors; there were quantities of green ones, and we found that many could be ripened in the house. A few cucumbers were raised. We had several cuttings of asparagus; the stalks were strong and healthy. Rhubarb is always good. We have been unable to obtain a good crop of strawberries as many of them are knotty. Peas were exceedingly fine and the crop abundant. The beans were the best I have seen anywhere; they were not left to mature as they were the snap variety. Kale and cabbage are always good. Radishes, turnips, and rutabagas grew well but were infested with the root maggot. Cauliflower formed beautiful heads of the very best quality. Kohl rabi was very large and solid. Parsnips were as good as can be grown.

The natives took much interest in their gardens and raised very good crops. Their main crop was potatoes, but other vegetables, also flowers, were raised. The children often go to the woods to gather flowers and they are very fond of the bright-colored ones. Every garden has to be fenced to protect it from the dogs. There was not so much new land cleared as usual, as the natives had no team with which to break it. The nettles do not interfere much with the gardens, although there are plenty of them. Mares-tail is a great pest and has nearly taken up some garden plots. It is hard to get rid of.

Plans are being made for an agricultural fair this fall. Prizes are to be given for the best gardens and vegetables.

Medical work and sanitation.—This work was carried on under the direction of Mrs. Shaver. There was an epidemic of measles in our village, which affected nearly every child. There were three deaths of children who were not strong and had been sick before. Aside from the above, the village has been quite free from sickness.

This spring a general village clean up took place. Eleven wagon loads of tin cans, etc., were hauled and dumped into the river. A clean-up this fall should leave the village in very good condition.

Dr. Craig has given us his help and advice at all times in the treatment of illness and in maintaining sanitary conditions, which we have appreciated very much.

The cooperative store.—The store did over $19,000 worth of business last year with a net profit of 15 per cent to the stockholders. This profit was divided as follows: Six per cent was paid on stock, six per cent on purchases, and three per cent was placed in a reserve. Some of the older natives were not satisfied with the profits because they had dropped off from those of preceding years. The high cost of supplies was the cause. The reduced profits on package goods was hard to overcome as there was often an advance of a cent or two on a package. We do not have pennies, so could hardly raise the price, which cut down the profits that much. At present the prices have advanced so much that our prices have been advanced accordingly. Unless something unforeseen happens our profits will be very good by the close of the year.

In connection with the store I might add that the credits are a great drawback. There is generally one of two causes for them. It is very seldom that the party asking credit has no money, but because a certain amount has been laid away for the big potlatch. That is never touched, even though the family is in want. The other reason, which is the cause of most of the credits, and which is being overcome gradually, is the fact that the native must see and handle the money in a transaction in

order to know the profit made. Guns, ammunition, and the food used on a hunt are almost always bought on credit when the proceeds of the hunt are to be sold. When the furs or meat obtained in the hunt are sold, the store bill is paid and the money in hand is the profit. If the hunt is not successful the bill may be one of long standing.

Hunting and trapping.—The natives had a good catch of furs last winter and realized good prices for most of their catch. Traders paid between $8 and $12 for lynx, while those handled through our department at Seattle brought nearly twice that amount. The furs handled by our department netted the natives $3,606.16, which was about half the catch. Some of the natives shipped their furs to Chicago and St. Louis, but they did not realize nearly so much as did those who sold their furs in Seattle. Circulars showing big prices still play a prominent part in attracting the native shipper. The returns have nearly always been disappointing. Next winter will see nearly all of the furs sold where there are competitive bids. The furs of 16 natives were shipped from Klukwan and handled by our department. One man's furs netted him over $1,100 for three months' work. A native of Klukwan by the name of Gundagain was offered by a trader $28 for four skins. He received through the bureau $60.90 for the same furs. Another was offered $27 and received over $47 net. A trader paid $12 each for some lynx skins but bought a most beautiful black fox skin for $250 that should have brought three times that amount. The bureau, no doubt, receives many knocks for helping the natives to dispose of their furs, but I feel that this is one of the best ways by which we can instill confidence in them and get them to realize that we have their interests at heart.

Fishing.—The natives of Klukwan did fairly well in their fishing. They received about $10,000 for fish and for work at the cannery. Not all of this came to Klukwan, as some of our people went away to work after the cannery season closed. Most of them obtained employment in the mines at or near Juneau. This work added between $2,500 and $3,000 to their earnings. Most of this sum was put away until after death to be given away in a big potlatch. Everything given away at that time is supposed to go into the hereafter to help the soul in the spirit world.

Canning.—About 500 pint and 200 quart glass jars were filled with fish, vegetables, and berries. Some of the natives took advantage of the opportunity and used the canner. They had no trouble about the berries and fish keeping.

Goats.—The goats came through the winter in better condition than usual. Two kids have been raised. They may become acclimated and in time prove of value here.

Old customs.—The big potlatch was held at Yendistuckie, where the feasting lasted for two weeks. This village is about 19 miles from Klukwan. Most of the people from our village and Haines were there. The only ones not going, I think, were those not invited. I have not been able to find out just how the potlatch was conducted, as it was too far from here and school had just started. One native gave away $1,000 in addition to the food he furnished. This must have been an unusual amount of money, as there was lots of talk about it. They had the white man's dance every afternoon and evening. There was one day when they did not let the whites in. I was not able to find out what took place at that time. When the people returned they said they did not know that it was to be an old-custom affair, but that when they got there they could not get away. The truth is that this feasting will fill many an evening with gossip, and they would not have missed it for anything.

The next potlatch was held at Douglas and was given by a native merchant of that place. The natives were given to understand that this was not to be an old-custom affair, but to dedicate a native brotherhood hall. It, however, turned out to be otherwise. The Klukwan band was invited with the promise of a handsome present, but did not receive enough to pay its expenses. Most of these feasts end in dissatisfaction of some kind.

In order to counteract these practices we should give the natives something to take their place. We do this in part by our school entertainments and parties, but they

like to get together in their own way at times. We need more room in which to entertain the natives of the village. The new basement for the school building will help out wonderfully.

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

By Mark Said, Teacher.

Hydaburg school opened October 2, 1916, and closed April 27, 1917, thus completing its sixth year. A total of 103 was enrolled, with an average attendance of 66.3. All grammar grades, excepting the fifth, were taught in the three rooms. After Christmas the regular work was supplemented twice a week by manual training for the older boys and sewing and cooking for the girls.

The census of Hydaburg for 1916-17 shows a population of 335. During the year ending June 30 there have been 19 births and 25 deaths. The excessive mortality is largely due to the ravages of an epidemic of measles, which broke out in December and was so general that school was closed during that month. During the progress of the disease 157 people were sick; at one time the teachers were caring for 125 patients. The measles alone proved fatal in but one or two cases; but five tubercular boys, when left in a weakened condition by the measles, were quickly carried away by the other disease; five other children followed within two months. Of those who died, 9 were young people between the ages of 10 and 20 years, 13 were babies, and but 3 were adults. Tuberculosis and its menigital complications claimed 75 per cent of the number.

Early in October the people organized logging, milling, and building crews, and began the construction of a new church. Before snow fell the frame was up and sheathed and the roof was on. This is to be a church belonging entirely to the people They are accepting no help from the mission board's building fund. All the labor is donated and the Forest Service has allowed free use on stumpage for the lumber.

In the fall the bureau authorized the erection of a teacher's residence at Hydaburg. A plan was selected, and the lumber was cut to fit the plan in Seattle and forwarded to Hydaburg.

After Christmas the interests of the townspeople centered in industrial progress. A new dock, measuring 44 by 96 feet, with an approach 360 feet long and 16 feet wide, was completed. It is located at the southern end of the town. The dock is substantially built, resting on hemlock piles, faced three sides with spruce fender piles, and surfaced with 2 by 12 spruce planking. At the shore end the foundation for a warehouse to be used in connection with a cannery, was completed and part of the framework of the building was set up. On the north side of this structure the foundation for a cannery building to measure 40 by 100 feet was about half finished. For setting the piling for this work, a steam pile driver was rented from Sulzer at an expense of $10 per day. The driver was in use for 19 days at an expense to the trading company of $190. This was paid for in logs.

These construction operations kept an average of 20 men working for three months. Every man in town put in some time at the work. Wages, fixed by the stockholders of the trading company in open meeting, were 30 cents per hour for workmen and 35 cents for bosses. Most of the earnings were applied to pay up accounts owing the trading company by the laborers, and the surplus went to purchase stock in that company, it being agreed that such stock should not draw dividends until the cannery produced profits from operation. The mill crews and the logging crews were also paid in this manner; and during the period the trading company collected $4,042.80 on current and back accounts, and the net increase in the accounts receivable was held to $10.24; $500 worth of stock was sold.

The sawmill has been very busy this spring. Between January 15 and May 31 it has cut 300,000 feet of lumber. Of this, 65,000 feet went into the construction of the new dock, 10,200 feet into the warehouse and cannery foundations, and about 200,000 feet have been sold, bringing the company $3,800. This amount does not represent a profit. To expect efficient service or dividends of the mill in its present condition is out of the question. The equipment is becoming so worn that frequent stoppage for repairs is necessary.

On the 1st of June the King salmon began to run and the mill crew followed the rest of the town to the fishing grounds. The King salmon fishing has been excellent this season. Many of the fishermen have earned more than $150. One boat has made about $800 in a month's time. Led by reports of business possibilities for the store in a location where many people camp for the King salmon season the trading company erected a small building and sent out a stock of goods this spring. This season the fish did not elect to swim in the neighborhood of the store, the people scattered to find the fish, and the venture will but little more than pay expenses.

The experience of the past year suggests the following recommendations: One man in Hydaburg is not enough to take care of the town's growing needs. There should be one man to attend to the industrial, commercial, and civic activities, and one to devote his time to the school and social life. A competent doctor or nurse with headquarters in Hydaburg is of paramount importance. In order to operate on a dividend-paying basis, the sawmill should be reconstructed in a new location, equipped with more power, a band saw and a larger planer, and the company should own a logging donkey engine. And, lastly, by the installation of a cannery, the town would gain, not only economically but mentally, morally, and physically.

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

By Charles E. Hibbs, Teacher.

On account of the lateness of the canning season, school did not begin until the 1st of October. Most of the patrons of the school had returned to their homes by this time and we were able to begin school with a very good attendance, which was maintained throughout the school year. Our first month showed an enrollment of 69 pupils, while our average attendance for the year was 63½. The total enrollment for the year was 88.

Mrs. Hibbs, taking the same grades she had the previous year, was able in a very short time to have all the pupils in her room properly located and doing their regular work. This is the first time since entering the native service I have had the opportunity of seeing the advantage gained by returning teachers to former positions, and the results show out much more plainly than in the white schools of the States. Every possible means should be used to retain teachers from year to year on account of the extra amount of work they are able to accomplish.

In all reading in the grades special effort was placed on the use of phonics, or the sound method, with very satisfactory results. The pupils have become very efficient in their ability to prepare reading lessons unassisted and also in reading them. Story telling was productive of good results both in memory training and in the use of English. The pupils enjoyed this work very much, for most of them have enough of an English vocabulary to understand the stories and data given them.

Much time in arithmetic in the grades was given to oral and mental practice and drill in the four fundamentals. I believe the grades here will fall very little below the respective grades in the States in this work.

More and better work was done in domestic science during the past year than during any previous year. This was not only conducive of good results among the

children but also awakened much interest and enthusiasm among the parents. Much practical work was done in the making of clothing and quilts as well as in crochetting and knitting.

We have enjoyed the most satisfactory year in the Klawock Commercial Co. since my coming to Klawock. Our greatest difficulty lies in the amount of credit we are almost compelled to give. However, we have been steadily gaining, and while at times the credit system caused some little embarassment on our part in our dealings with the wholesale houses we are now on a fairly firm foundation and feel quite sure of our position. Last winter when our books were audited we gave a 12 per cent dividend and placed 2 per cent in the business. This established much more confidence in the village and we are yet increasing our stock. We hope in the near future to establish a sawmill and cannery in connection with the store. There was much talk of a small hand cannery last winter, but the sharp advance in tin caused us to hold up these plans until better inducements can be obtained in tin and machinery. A small sawmill is much needed here, as with the growth of the village much sidewalk material is needed as well as building material. The bureau should extend every effort in helping us to secure this mill, as it would be a great encouragement to the people of Shakan and Karheen who are moving here for school privileges. With a little encouragement from the bureau I feel it is but a short time until we can have all the Thlingets of the west coast of Prince of Wales located at Klawock as the Hydahs are now located at Hydaburg.

The people of Klawock have been exceptionally healthy during the past year, having had no deaths in the village. But a resident of the village died at a fish camp. Several, however, are in the last stages of tuberculosis and can last but a short time. The medical work during the past year was considerably lighter than the previous year and the assistance rendered by the teacher of sanitation was also very valuable. If it is impossible to establish hospitals at these villages I would suggest a building be arranged with two or three beds with a nurse placed in charge. In the serious cases medical aid can be secured from Craig, 6 miles distant. It is impossible to treat many of the more simple cases satisfactorily in the homes on account of the unsanitary conditions and the unreliability of the natives in giving medicines.

We have had very little trouble in the village during the past year. The town council has enacted some very creditable laws and very successfully enforced many of them. The council elected last fall seems to realize more than the previous and first council the duties resting on them and the powers intrusted to them and have performed their duties in a very creditable manner. Most of the people from the village of Shakan moved here last winter, and the people from Karheen expect to move here this fall. This will materially increase our population and unite almost all the Thlingets on the island. We hope to finish our school building this summer and get our village surveyed. The new part of the village will be occupied by the new citizens and a few of our better families that wish to get better homes in a less crowded section than that in which they are now living. These things are all encouraging, and while we feel much has been accomplished during the past year we hope with better conditions and facilities to accomplish much more during the next year.

The parents as well as pupils take much interest and pleasure in school entertainments and two very successful ones were given during the winter. We have already raised $45 toward a printing press for the school.

At one of our entertainments I had an exhibition of military drill which was so well received that I decided to continue the drill among the boys in school. I feel the time was well spent in the lessons of discipline taught as well as the physical exercise obtained.

Toward spring I suggested to some of the pupils as well as parents that we organize a school band. This was enthusiastically received and the village furnished us with instruments. Sixteen boys took part, ranging from 8 to 18 years, and after two months'

practice were able to make a very creditable showing. While I do not feel this is a necessity in the school work here, it worked up great interest in the school among the parents and assisted so much in punctual attendance, both among the members of the band and those that enjoyed coming early to hear the practice, that I believe it was well worth the effort and should be continued. We practiced each morning at eight and it was not unusual to have boys at the schoolhouse before seven awaiting time for practice.

After the holidays a musical and literary society was organized, holding meetings once each week. Any one in the village able to speak the English language was eligible to membership, and only English was to be spoken in the society hall. Some of the older people could not understand the mission of this society at first and refused to attend or allow their children to attend. Some were faithful, however, and our membership and attendance kept growing until we found the school auditorium too small for the gatherings. They took especial delight in debating; even school girls just in their teens taking part. The judgment used in selecting subjects and the ability with which they were handled were very gratifying.

I believe the time and effort put forth for the Metlakatla-Hydaburg-Klawock school fair was well spent. While the people of Klawock are very jubilant over the results of the fair, I am convinced that the time has not yet come for competition among the natives, when it is those from different tribes that are contesting. I have worked with two tribes and find the idea prevalent that each is the chosen tribe. They yet delight in relating the prowess of their forefathers in overcoming the cunning of the other tribes and cannot take defeat graciously. This competition, regardless of the fairness of the judges, only tends to intensify this feeling of rivalry we are trying to stamp out, and what we gain from an educational standpoint we lose in keeping open this old hatred that must be allayed to establish a union of the natives for common good. I would recommend that these fairs be held annually; each school putting its best or what it has at hand on exhibition; a regular program of educational value for patrons and teachers should be given each day, and one night be given each school for an entertainment for the benefit of those in attendance.

EXTRACTS FROM THE REPORT OF THE GOVERNOR OF ALASKA, 1917.

The natives of Alaska.—The economic conditions among the native population of Alaska have changed considerably during the past year. Those depending on furs for their main livelihood have not only faced a scarcity of pelts, but have found that prices were below normal on account of the war. On the other hand, the cost of food and other supplies which have to be shipped in from the States has increased 50 to 300 per cent. Added to this, in a good many sections, there has also been a scarcity of fish during the year, which has reduced their winter supply of this food article.

To combat the above conditions, the United States Bureau of Education, through the agency of its teachers in Alaska, issued instructions urging the natives to live as much as possible independently of food supplies and manufactured articles which have to be brought from the outside, and to conserve the native products not only for their own salvation but for the assistance they thereby render the country in the war in which it is engaged. To this end the native, as a farmer, is gradually becoming a factor in the development of the Territory. Through its schools in Alaska, the Bureau of Education is attempting to teach the natives the advantages of having their own gardens in which to raise foodstuffs, not only for their own use, but for the use of miners and others in their vicinity. The products of the Kuskokwim, Kotzebue Sound, and upper Yukon regions are very creditable and show great promise. It has been difficult in the past to impress upon the natives the advisability of remaining with their gardens until the crops are assured. They have to combat their

natural tendency to leave their homes in order to go fishing. While it is necessary for them to obtain fish as well as vegetables, the two can be combined if handled intelligently.

Under the present laws it is possible for natives to acquire allotments of land in Alaska. To date their usefulness has been rather doubtful. The allotments as now made are really too small for hunting purposes and too large for farms. The native has not yet reached the stage where he can handle intelligently a 160-acre farm, even if he were in a position to clear it and put it under cultivation. Up to the present it has only been possible for him to handle a good-sized garden. After he has learned the lesson well and the advantage of the latter, he will then be in a position to undertake the cultivation of a 5-acre farm.

The native is also learning to avail himself of banking facilities. Through the Bureau of Education in Seattle it has been possible for him, for several years, to send his furs and other products to be sold in Seattle, thereby assuring him the highest return for his peltry. The money which he has then to his credit is either used in shipping him such supplies as he must have, or, if it is not needed for this purpose, is usually kept by the bureau for him and placed at interest. The chief of the Alaska division is under bond for taking care of these matters for the natives, and in the past year approximately $20,000 was handled in this manner for them. All such accounts handled by the chief of the Alaska division are audited quarterly. Those of the natives who desire and are able to handle their own accounts have been given their individual savings and checking accounts.

The natives continue to avail themselves of the Alaska legislative provision of 1915 for citizenship. Also several villages have been organized in accordance with the act passed by the same legislature. Up to the present most of these have been in southeastern Alaska, where the natives appear to be the most progressive. When a village is properly organized, a council manages its affairs in a very creditable manner, and improved conditions are always the result of such management.

The bureau has collected miscellaneous statistics in regard to the native population, and while complete returns have not been received from all sections of the Territory, sufficient statistics have been received to make possible a survey of the natives and their conditions. Reports were received from 88 villages in Alaska, having a total population of 9,235. Of this number it appears that 5,028 are adults, 2,055 children of school age, and 2,551 children under school age. Of the 5,028 adults, 1,311 can read and write, and of the 2,655 children of school age, 1,599 can read and write. Of the population there are 53 engineers, 82 pilots, 36 captains, 13 teachers, 28 preachers, 419 carpenters, 306 reindeer men, and 59 miners, the remainder being classified as fishermen and trappers.

Their progress toward adopting civilized habitations may be noted in the fact that of the 2,522 domiciles in which this population lives, 1,509 are frame or log buildings, of which 341 are three-room, 317 two-room, and 851 one-room capacity. Of the entire 2,522 dwellings, but 597 could be classified as shacks or igloos. In addition to these dwellings, 88 villages had a total of 54 community buildings, such as town halls, cooperative store buildings, etc.

Another interesting phase of the statistics bearing on the progress made by the natives is that relating to means of navigation. A native boat to the average person means a crudely fashioned craft of skins and sinews. While the latter are still in evidence, especially along the Arctic shores, the bureau's statistics show that, in addition to the 431 skin boats and 163 birch-bark canoes, there are 1,325 wooden boats, of which 163 are sailboats of an average tonnage of 4.8 and 208 power boats of 4.9 average tonnage, equipped with 8.4 average horsepower engines. When the fact is taken into consideration that these statistics cover less than 40 per cent of the native population

of Alaska, it is remarkable to note how they have availed themselves of modern conveniences and adapted them to their needs. In southeastern Alaska the native fishermen equipped with power boats are no small asset to the salmon industry of the Territory. Most of such boats have been built by the native owners. They not only possess such ability to a marked degree, but the care and handling of gas engines appear natural to them. Their acquisition of civilization's conveniences may be emphasized by the fact that these 9,000 natives own 1,843 sewing machines and such home furnishings as 132 organs, 2,078 clocks, 1,563 phonographs, and 1,837 bedsteads.

The fact that the Alaska natives are not a dependent people can not be overemphasized in order to give them the credit they deserve for successfully fighting for an existence in the face of rapidly changing conditions, caused by coming in contact with the white man. Although the native has had to rearrange his mode of living and to a certain extent, his method of securing his livelihood, he has rarely been forced to ask for aid. The Bureau of Education has, during the past year, expended but $2,000 for the relief of destitution. That is 8 cents per capita, based on a native population of 25,000. In most cases the relief was given only on account of temporary destitution, and return of wood and labor was received in payment of the supplies given. The net amount expended for destitution, therefore, is almost negligible. With a little foresight on the part of the Federal Government, the natives' future and permanent independence can be assured.

In such sections of Alaska where reindeer have been distributed the natives' economic independence is already established. However, such sections are restricted to the coastal regions, western, and northwestern Alaska. The value of the reindeer industry to the natives of Alaska can not be overestimated, and the introduction of this industry into Alaska will ever remain a noteworthy example of one of the Government's constructive policies. The Bureau of Education, to whose credit the successful management of the industry belongs, having thus established its ability to deal with the problems of the natives, should be given by Congress the additional means it needs and has asked for so many years with which to establish the natives of the entire Territory on a permanent economic basis.

The present appropriation for the education of the natives of Alaska, $200,000, is the same as it was in 1908. It is obviously impossible for the bureau to enlarge its work, provide for vocational training, establish boarding schools, etc., when every dollar is needed to maintain the school service already established. When the vast territory that has to be covered is taken into consideration and the fact that the native communities rarely exceed two or three hundred in number, together with the cost of reaching most of the isolated native villages and the ever-increasing cost of supplies and material necessary to a school system, it is surprising that the bureau is able to maintain its 70 schools on such a small appropriation and secure the results which have been obtained. Congress must be made to realize the importance of providing adequately for the natives of Alaska. They already bear their share of the taxes. Quite a number are availing themselves of citizenship, as well as organizing their villages. Given means to properly guide the natives in their acquisition of civilization, the Bureau of Education should have no difficulty in transforming the natives into self-reliant and useful citizens. They are unquestionably an asset to Alaska, and their development is of paramount importance to the best interests of the Territory. In addition to the increased educational appropriation, the Bureau of Education should have at its disposal a reimbursable fund with which to establish industries among the natives. Since the majority of the natives live in their own communities, the establishment of such industries would not mean competition with white enterprise, but rather the development of native resources within these communities. The success of the cooperative stores already established in nine villages without the aid of Government funds demonstrates what can be done along this line under proper supervision. Two of these native store companies not only do a general mercantile business but

manage sawmills which produce lumber for their own communities and for neighboring towns as well.

For obvious reasons the Bureau of Education has encouraged the establishment of larger villages. This end is secured by a policy of setting aside selected tracts through Executive orders for the use of natives exclusively, and the establishment thereon of suitable and attractive industries. The bureau is thus able to secure a maximum amount of benefit for a larger number of natives than is possible when they are scattered in more or less isolated and small villages. This policy at present is in its infancy, but sufficient progress has been made to clearly demonstrate its feasibility in parts of Alaska. Much along this line can not be done, however, unless appropriations are available with which to launch the industrial enterprises necessary to the success of such native reserves and to maintain and equip schools adequate to meet the needs of natives attracted to such reserves. These reserves are in no sense to be confused with the Indian reservations of the States. The reserves in Alaska are set aside merely for the use of natives, and residence upon them in no way curtails the freedom of the native. In his present state he is no match for his keener white brother and his interests must, therefore, be protected. Equally important with his educational and industrial development is the proper care of the native's physical well-being. Here again the vast area to be covered and the scattered villages to be provided for make the task colossal. The native of Alaska has great recuperative power and needs in many cases only a little medical aid or advice. This can usually be given by the teacher, if a native school is at hand. There are, however, many chronic cases in practically every village which are in most urgent need of a physician's care and treatment. Having an appropriation of but $50,000, the Bureau of Education is utterly unable to cope with the situation.

Trachoma, tuberculosis, and venereal diseases are the most common of their afflictions and must be combated energetically to save the natives from extermination. Unless the appropriations for medical relief keep pace with those for educational and industrial matters, the latter will be practically useless. The responsibility for this lack of attention lies wholly with Congress. The needs, particularly the medical, have been presented to Congress time and again by various agencies, with no result except appropriations that are inadequate and that can not possibly meet the needs of the situation. When one considers that a seaman with but 60 days' service has at his disposal free medical and hospital care under the United States Public Health Service in any United States port, whenever it is needed, it seems rank discrimination to permit the natives of Alaska, who are practically helpless without such aid, to go unattended. Not only is it necessary to provide this aid for the sake of those afflicted, but also for those who may yet remain well. Equally important is the consideration for the white population, as the physical deficiencies of the natives, unless promptly attended to, become a menace to their white neighbors.

The Alaska native school service.—Seventy schools, of which two were summer schools only, were maintained by the Bureau of Education during the past year. The total enrollment was 3,600. Most of these schools included the elementary grades only, presided over by one of the teachers. In some of the larger villages more advanced work, up to the eighth or ninth grade, was done, as at Metlakatla, Hydaburg, Unalakleet, Wales, and Barrow, where from three to six teachers are employed. The curriculum covered includes not only the three "R's," but such practical subjects as manual training, domestic science, agriculture, sanitation and hygiene; and, in order that the adults may have similar advantages, evening classes are held in the schoolrooms and meetings for the women of the villages are held afternoons at regular intervals. Thus the entire village comes in contact with the school and enjoys its benefits. The influence of these schools, therefore, can not be gauged by reports of the enrollment of the day school.

Quite often the teachers are the only white people in the native communities and the natives, therefore, naturally look to them for guidance, counsel, and assistance in matters concerning their welfare. In addition to the schoolroom duties the teachers devote themselves to "settlement" work and by practical advice and example improve the modes of living of their villagers. The teachers in this service must, therefore, not only possess pedagogical ability, but must be all-around, practical people who can be of service to the entire community. Each school is also provided with a well-selected assortment of medicines with which to alleviate the minor ailments and sufferings of the people. The more medical knowledge a teacher possesses the more effective is this important phase of the work. The schoolroom work of the native boys and girls makes a very creditable showing, comparing very favorably with that done in white schools. During February a southeastern Alaska school fair was held at Metlakatla at which exhibits from most of the schools of the district were shown. Delegations from Klawock and Hydaburg attended and the usual contests between these two schools and Metlakatla were events of the week. Properly engraved certificates were awarded to the victorious contestants and the owners of the best exhibits. This fair was the first of its kind and will probably be an annual event, being not only of benefit to the native children and an inspiration for their best efforts, but also an opportunity for the teachers of the schools to compare methods and be of mutual assistance. The industrial work which is of such importance to the natives is gradually being developed. The progress which has been made, however, has been handicapped because of a lack of funds. Just as important as a practical education is to the native children is the assistance which adults need along industrial lines. Enough has been done to demonstrate that such an investment is secure and will bring a very satisfactory return. However, this has been accomplished practically without Federal aid. If a large number of natives are to be taught industrial independence a reimbursable fund is necessary, which can be used for the launching of native enterprises, properly supervised, returns to the fund being made by annual installments, the fund thus replenished being used in the launching of other enterprises. The Bureau of Education has for several years asked for $25,000 for this purpose, and it is to be hoped that it will be granted at the next regular session of the Congress.

There are at present 10 native cooperative store companies in Alaska whose local affairs are supervised and the books kept by the teachers located at the places where the stores are maintained. Two of them have sawmills with which they produce lumber for local use and wherever a market may be had. The accounts of these store companies are annually audited. By an adequate accounting system which makes possible definite statements in regard to business these native companies are of invaluable educational benefit to the native stockholders. They are uniformly successful and are a credit to the natives, having been capitalized with their own money and credit received from Seattle wholesale houses and are managed entirely by themselves, except for the advice and oversight of the teacher.

Agriculture is being developed through school gardens with very gratifying results. These school gardens may be found in almost every section of Alaska, and through this agency not only the interest of the younger generation is being stimulated, but that of the entire village. The energy exponded on their gardens will bring especially good returns this year, when the prices of food of all kinds are almost prohibitive. By a large production of vegetables and the storage of large quantities of dried fish, canned berries, and other local products the natives can live almost independently of outside supplies, thereby contributing materially to the conservation of food in the United States.

Another interesting phase of the industrial work in connection with the native school is being developed on Atka Island. As an experiment two head of cattle were shipped there by the Bureau of Education five years ago. This small herd has

now increased to eight head. A silo has been erected, the ensilage being made of the luxuriant grass of the island, on which the cattle seem to thrive.

Not a small share of the success of this school service is due to the well organized supervision given the schools. The Territory is divided into five districts, each of which is in charge of a superintendent directly responsible to the chief of the Alaska division in Seattle. These superintendents are required to visit each school at least once a year, which, in addition to always being in close touch with the local conditions of each school, makes a uniform and efficient school system possible. The superintendents travel by means of regular steamers, launches, dog teams, and reindeer. In the western and northwestern districts the reindeer is the only means of transportation used by the superintendents during the winter, and the hundreds of miles traversed by them is indisputable proof of the feasibility of reindeer for transportation. In order to properly protect the natives' interest, the rules and regulations of the service forbid its employees from engaging in trade for profit. During the years of its existence there has been but one noteworthy example of the transgression of this rule. This occurred at Wainwright, Alaska, during the fiscal year 1915-16. The teacher in charge and his wife traded with the natives during the winter for white fox skins to such a successful extent that when the skins were sold upon their arrival in Seattle the following summer they found themselves temporarily richer by the net profits of over $3,000. Action against them was immediately taken by the Bureau of Education, and one-half of the amount was recovered for the Wainwright natives. This money was used the next year as a nucleus for a cooperative store at that place. The matter was settled by compromise, and a larger recovery would have been probable except for the fact that it was claimed that the trading had been done by the teacher's wife, who was not under actual appointment by the Bureau of Education. The amended regulations now apply to all members of the teacher's family who reside with the teacher in quarters furnished by the bureau.

A very important need of the bureau for the successful conduct of its schools is a power schooner. The bureau must necessarily place its schools where the natives have their villages. Consequently, many are located out of the paths of the regular transportation lines. Hence every summer the bureau is hard put to secure suitable vessels in which to ship the annual supplies to these inaccessible places. Usually such suitable vessels have to be paid exorbitant rates to induce them to call at these points. Added to this is the uncertainty of these vessels making such calls before navigation closes. Of paramount importance is the safety of the people who are sent as teachers. The means by which it has been necessary to get the teachers to some of these posts are without question hazardous and inadequate. The people who are willing to undertake the work at these lonesome stations should not be asked to take all these unnecessary risks to their lives and the inconveniences which at present are required of them. If the bureau had a boat of 350 or 400 tons capacity, it could carry teachers and deliver the supplies promptly, safely, and economically. To reach the stations in the Bering Sea and the Arctic Ocean, except the few that are ports of call for regular steamers, is an ever present worry to the officials of the bureau. After such a boat had served its usefulness it could be used as a training ship for the native boys of southeastern Alaska. This phase alone, were no other considered, should justify the acquisition of the boat in question.

The Metlakatla Indians.—Affairs at Metlakatla assumed a somewhat more definite shape during the past year. The legality of the fishery reserve having been reaffirmed by the circuit board of appeals, definite plans for the development of this interesting colony are now being formulated. While the Bureau of Education would have preferred to have handled the colony on a native cooperative basis, sufficient capital could not be raised. Neither were Federal appropriations available for this purpose. The fire in May, 1916, which destroyed the old cannery buildings,

automatically canceled the agreement with the P. E. Harris Co. for the rehabilitating and operation of the cannery for a period of five years. Negotiations were, therefore, opened for again leasing the cannery and fishing privileges of the island. Two good offers were made by J. L. Smiley and C. L. Burkhardt. The bid of the former was considered the more attractive by the council of Metlakatla and the Interior Department and was accepted. Under the terms of the agreement the cannery is to be rebuilt in time for use during the season of 1918, beyond which the cannery is to be operated for four additional years. At the end of this period the revenue accruing from the contract, consisting of 1 cent per fish for all fish taken in traps from the reserve by the lessee, is expected to be sufficient to enable the Interior Department to take over the property of the lessee, after which the cannery will be run by the native cooperative company which was organized in 1916, under the name of the Metlakatla Commercial Co. This company is now doing a general mercantile business and is managing the sawmill, which has produced most of the lumber for the new cannery buildings that are nearing completion at the present time. Originally organized with a capital of $2,295, the present paid-up stock of the Metlakatla Commercial Co. is $7,375. A continued growth will place this company on a firm financial basis and will enable it to take over the cannery at the expiration of the present lease. Through the means thus afforded the economic restoration of this colony is assured, not only in the final possession of the cooperating cannery, but the wages and incomes thus assured the inhabitants during successive years. Considerable opposition to this reserve has at times been evidenced by various people, but the opposition invariably, it would seem, reveal selfish motives.

Alaska has miles and miles of territory in which the progressive white man is well able to secure a good return for his energy. Efforts which aim at the overthrow of the protection given a few Indians through the setting aside of a small island in order that they may live happily and contentedly must be condemned. If it were possible for the objectors to view the matter from a broad, humanitarian standpoint, their objections would unquestionably cease. The repeated statement that the Annette Island fishery reserve was made for the benefit of "foreign" Indians who migrated from British Columbia fails of itself when confronted with the fact that over three-fourths of the inhabitants of Metlakatla were born in Alaska. The Metlakatlans are already one of the most progressive tribes in Alaska, and if the Bureau of Education is left unhampered by outside influence this native community will undoubtedly become one of the most prosperous and contented in the Territory. The bureau has already established an excellent day school, whose efficiency will be increased when the present building is completed. The remaining wing will include a gymnasium, an auditorium, shower baths, domestic science and manual training rooms, two additional schoolrooms, and a small surgery. Added to this will be the machine shop of the lessee of the cannery, which will be available during the winter for the classes from the school. With this equipment as a nucleus, the way is opened, with but a little additional outlay, for a small boarding and industrial school for advanced pupils from southeastern Alaska.

At present many native children are sent to the States to attend the Cushman and Chemawa schools, under the Bureau of Indian Affairs, for advanced training as well as elementary education. This course has proved very disastrous, as the change in climate usually impairs their health to such an extent that tuberculosis is contracted, after which the decline is rapid, and the complete change in environment has a fatal effect upon the pupil's future usefulness. The conditions under which pupils live in the training schools are radically different from their previous environments. The trades they learn are frequently useless when they return to their homes, and the ideas and views of life which are the result of the life at a school where every act is according to a well-ordered program, which thereby displaces individual responsibility, make it difficult for them to readjust themselves to the environment of the

native villages when they again reach their home. All this, combined with impaired health, makes such pupils practically failures when they return home. The training schools for these native pupils must be located in Alaska, under conditions similar to their previous environments, where health will not be impaired but rather improved on account of supervision and where only such practical subjects will be taught as will be useful to them in the future.

Needs of the service.—The needs of this service may, therefore, be summed up in four main points, all of which are dependent on increased appropriations from Congress:

First. More schools. As already shown, actual schoolroom work, while important, is but a small part of the beneficent results of the establishment of a school in a native community. There are numerous villages in Alaska of sufficient size to more than justify the establishment of schools.

Second. A reimbursable fund with which to establish industrial enterprises among the natives as an insurance for economic independence.

Third. A power schooner to be used as a freighter and as a training ship.

Fourth. An industrial training school in southeastern Alaska for advanced pupils.

The Alaska native medical service.—This service is under the Bureau of Education, with the advice and cooperation of the United States Public Health Service. The appropriation for this work for the past year was $50,000, which was $25,000 more than the first appropriation ever made for medical relief among the natives, granted the previous year. Before that a portion of the educational appropriation had been used for this purpose. The present appropriation just about covers the work previously supported under the educational fund. The past year a well-equipped and complete hospital was maintained at Juneau, having a capacity of 20 patients and a staff consisting of a physician, three nurses, an orderly, janitor, cook, and interpreter. From the fact that the hospital was kept filled the greater part of the year, one may judge of the long-felt need it is filling and the great service it is to the native population of southeastern Alaska. Small hospitals, housed in former school buildings, were also maintained at Kanakanak on Bristol Bay and Nulato on the Yukon, each of which was in charge of a physician and one nurse. The one at Kanakanak is now being enlarged and altered, which, upon completion, will make it a modern and complete hospital of 11 beds' capacity. In addition to the three physicians in charge at these hospitals, the bureau had under appointment a physician at Nome and at Cordova and contracts with physicians at Council, Candle, and Ellamar. In addition to the nurses at the three hospitals, a nurse was stationed at St. Michael, Koggiung on Bristol Bay, and Akiak on the Kuskokwim; also two traveling nurses in southeastern Alaska. Contracts for the care of native patients were also made at Nome, Ellamar, Anchorage, and Seattle. The last named was a children's orthopedic hospital, to which Alaska native children were sent for special treatment.

Each school has a carefully selected stock of medicines and supplies, which constitutes a small dispensary with which the teacher ministers to the ailments of the inhabitants of the village in which the school is located. Anyone at all familiar with the extent and geography of Alaska will realize instantly the handicap the Bureau of Education is laboring under in attempting to minister to the local native needs with such a limited appropriation. Much has been written and said concerning the relief which the natives should have. Without this relief all other plans for them are necessarily futile. An analysis of the situation causes one almost to agree with the pessimistic alternative that the Congress should either attend to the needs of the natives in a comprehensive and sufficient manner or else do nothing at all and allow the race to die out as quickly as possible. While the service now rendered in a few places mentioned is efficient and valuable, the total results are meager when compared with the total native population. It is almost incomprehensible that Congress, which provides for the Indians of the States with such a lavish hand, can not grant a few

thousands to a people who have never been charges of the Government and who ask for only a little assistance to their own efforts to make them useful and self-reliant citizens.

The Bureau of Education could easily make excellent use of an appropriation of $200,000. With this sum an effective medical service could be organized with which to meet the needs of these people. While the vast extent of the Territory will always be a handicap in covering this field, the sum mentioned would make possible the establishment of additional hospitals and appointment of physicians at strategical points in the Territory, where the greatest number of serious cases could be treated, and the appointment of nurses in communities not sufficiently populated to justify the establishment of a hospital large enough to warrant the services of competent nurses.

As tuberculosis is so prevalent among the natives, special attention should be given to this disease. The bureau's estimates include the construction of tuberculosis cabinss in connection with the hospitals at Akiak and Kanakanak and the erection and maintenance in the Chilkat Valley of a tuberculosis sanitarium of 50 beds. It is to be sincerely hoped that this, as well as the other plans for this urgent work, will be speedily realized. The establishment of hospitals for natives is not only of benefit to the native people, but also to the whites. The present hospitals, excepting Juneau, are, and the proposed hospitals will be, located in sections not served by white hospitals. The appropriation act is so worded as to permit the admission of white patients, and this provision has already proved a godsend to sick and injured miners and prospectors.

There is at present no definite arrangement in regard to supplying the needs of natives in villages where Territorial schools are located. The bureau holds that when white inhabitants of such a village have secured a Territorial school for their community the bureau is not justified in continuing its school in a place where the total population, both native and white, is not large enough to support two schools. Upon the withdrawal of the native school, the bureau no longer has a representative in such a community and is, therefore, not in a position to attempt to look after the natives. It also holds that, since the Territorial school was voluntarily requested, the accompanying responsibility for the care of all the inhabitants and their interests is thereby assumed by the Territorial authorities. However, these local school boards have renounced this responsibility and the Territory has been unable to assist in the matter. Consequently the natives in these communities receive no attention at all. Were the bureau's appropriations sufficiently large to meet the needs of the natives this question would not arise. Under the present conditions, however, the bureau must expend its funds where the greatest benefits to the natives will accrue, and the communities sufficiently populated with white people to justify a Territorial school are not considered as dependent on the bureau's oversight as are more purely native villages.

Alaska reindeer service.—Statistics for the year ending June 30, 1917, are not yet available, but a conservative estimate would place the total number of reindeer in Alaska at 95,000. This large number is the result of the introduction into Alaska of 1,280 reindeer from Siberia. The statistics for the year ending June 30, 1916, show a total of 82,151 reindeer, distributed among 85 herds. Of this number, 56,045, or 58 per cent, were owned by 1,293 natives; 3,390, or 4 per cent, by the United States; 5,186, or 6 per cent, by missions; and 17,530, or 22 per cent, by Laplanders and other whites. That this industry is of paramount importance to the natives interested is recognized in the fact that the income of the natives from this industry, exclusive of meat and hides used by themselves, amounted to $91,430. That the reindeer industry has proved a successful enterprise from a financial standpoint is seen in the following table.

Valuation of 56,015 reindeer owned by natives n 1916, at $25	$1,401,125
Total income of natives from reindeer, 1893–1916	470,837
Valuation of 26,106 reindeer owned by missions, Laplanders, and other whites and the Government in 1916	652,650
Total income of missions and Laplanders and other whites from reindeer, 1893–1916	146,926
Total valuation and income	2,671,538
Total Government appropriations, 1893–1916	312,000
Gain (756 per cent)	2,359,538

This industry was introduced into Alaska for the sole purpose of making the natives economically independent in such portions of Alaska to which the industry could be adapted. In this the industry has been eminently successful. The distribution of the deer has now been firmly established and the natives affected thereby are assured of a livelihood that is usually limited only by the individual's energy. Even in such sections where conditions are not favorable to the opportunities to realize any financial returns from reindeer, his herd provides the native and his family with food, clothing, and transportation, which are sufficient in themselves to prevent him from becoming a charge of the Government.

The distribution of the deer has been accomplished through a system of apprenticeship whereby a native serves four years as apprentice, at the end of which time he owns the deer called for by the contract of apprenticeship, namely, 6 deer the first year, 8 the second, and 10 each the third and fourth years. Having satisfactorily served his apprenticeship, he then becomes a herder and assumes charge of his herd. Each herder is required by the rules and regulations to take apprentices under the same terms that he himself served as apprentice. The distribution is thereby perpetuated and will continue long after the Government itself owns no deer.

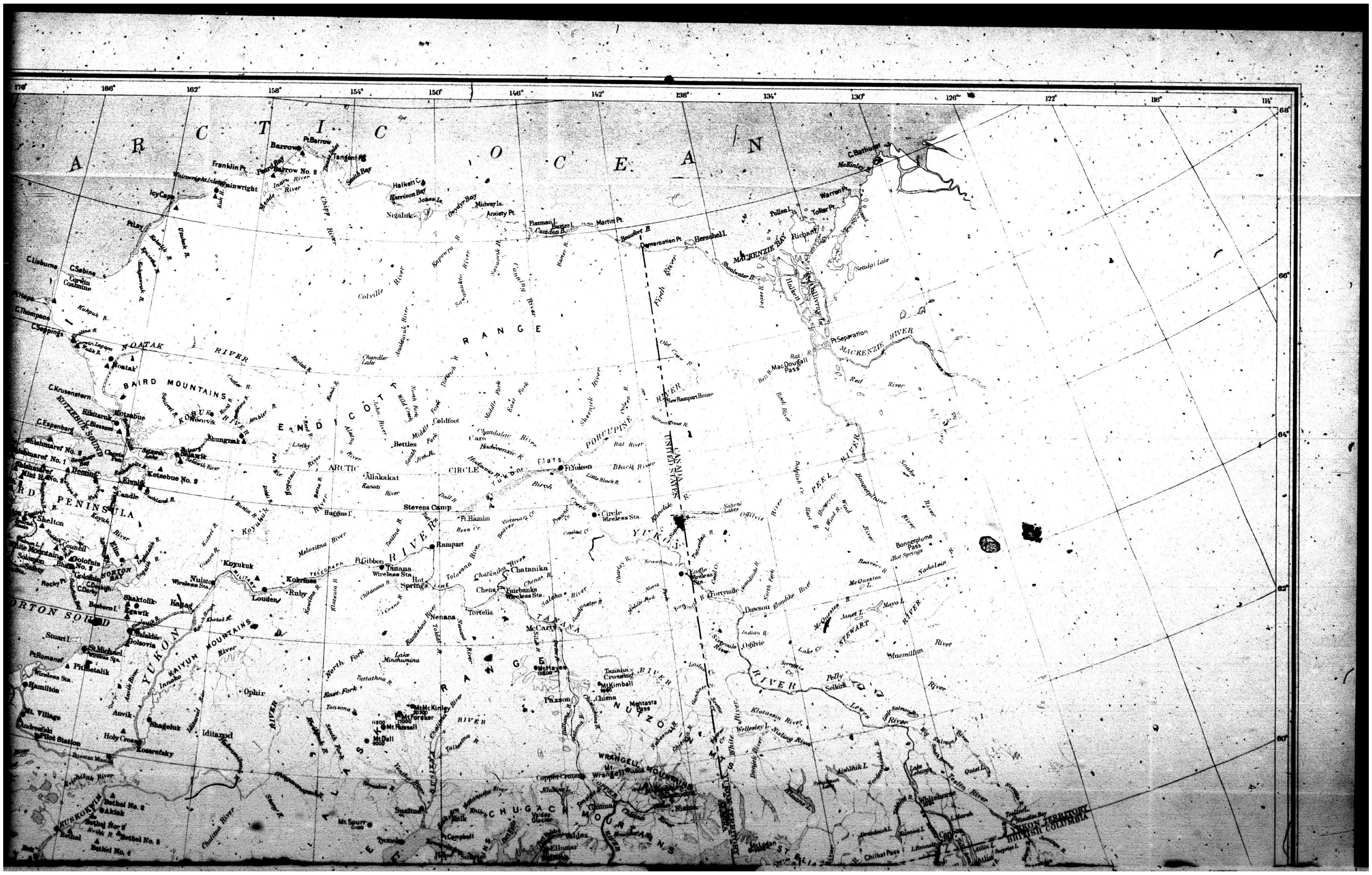
While the primary object of the industry is to assist the natives and for this reason has been restricted to them as much as possible, the past three years have seen the entrance of the white man into the enterprise. The rules and regulations forbid natives to sell female deer, except to natives. However, certain Laplanders who were brought to Alaska for the purpose of instructing natives in the care of deer, for which they received reindeer, were not subject to this restriction and consequently a herd of about 1,200 deer was acquired by Lomen & Co., of Nome, during 1914. During 1915 this company, desiring to increase its herd and not finding any more Lapp deer conveniently available, negotiated a purchase of about 1,000 deer from herds of the Swedish Evangelical Mission Covenant of America, at Golovin. These herds were the result of a loan of deer made to the mission during the earlier days of the industry, when it was the desire of the Bureau of Education to distribute the deer as quickly as possible. The appropriations being small and the philanthropic enterprise being in line with missionary work, it was thought that the loan of a small herd to each mission in the field, with the understanding that the same method of distribution to the natives should be used as in the Government herds, would be of mutual assistance and would aid materially in the rapid distribution of the deer. Some of the earlier contracts covering such loans were drawn very loosely. It appears the Golovin mission's loan was made under oral agreement with the then local missionaries. Years later the missionaries had changed and the agreement was gradually forgotten, so that when the offer of about $18,000 was made by Lomen & Co. it was forthwith accepted. The matter has since been the subject of controversy between the bureau and the mission board, in which the former has tried to show the board that, although the legal reasons may be poor, the board is morally bound to preserve the original objects of the introduction of deer into Alaska, namely, the distribution among the natives. The final disposition of this matter depends on the outcome of litigation at present under way, in connection with a later and similar violation of the Norwegian Evangelical Lutheran Church at Teller, which, in 1916, sold about 300 deer to Lomen & Co. The loan to this mission is covered by written

contract, which it is alleged has been deliberately broken by the mission in its sale of female deer to other than natives. The matter is now in the hands of the Department of Justice and its final outcome will be important, since it will affect the status of all deer now held by missionary organizations in Alaska.

Four reindeer fairs were held during January and February, at Akiak on the Kuskokwim, Shatolik in the Norton Sound region, Igloo on Seward Peninsula, and Noatak in the Kotzebue Sound district. These fairs were largely attended by natives and whites who are interested in the reindeer industry. The usual contests enlivened the week's festivities. Lectures were given daily on various phases of the work; discussions were held and many controversies arising in connection with the ownership of deer and the personal affairs of herders and apprentices were settled by a native council elected by the delegates to the fairs. These conventions have now become permanent annual affairs, and their importance to the natives and the industry can not be rated too highly. The rivalry engendered makes for increased interest and renewed efforts in the various phases of reindeer work. The annual comparison of methods means increased efficiency of herders and apprentices, and the amicable settlement of differences which invariably arise between reindeer men results in harmony and good-fellowship.

The needs of this service may be summarized in an increased appropriation for the purpose of employing two specialists, whose duties will be to introduce methods for improvement of breeding and scientific handling of the deer; to investigate reindeer diseases and establish means of combating them, and to give special attention to all matters pertaining to the improvement of the industry. This enterprise has now assumed proportions that make it imperative that it be handled in a scientific manner. The present appropriation of $5,000 is, and the past appropriations have been, only large enough for the work of distributing the deer among the natives. Because of a lack of funds this distribution has necessarily been limited and very gradual. The time has now arrived when this industry must be handled with due respect to its size and importance. That Federal appropriations invested in this enterprise bring a magnificent return has already been proved. Congress should, therefore, not hesitate in providing additional means for continued improvement and scientific management of this industry.


DEPARTMENT OF THE INTERIOR
U. S. BUREAU OF EDUCATION
MAP OF
ALASKA
Compiled from maps of the U.S. Geological Survey
Scale 1/5000000
Approximately 80 miles to 1 inch
50 0 50 100 150 200 Miles
50 0 50 100 150 200 Kilometers
1917
LEGEND
Public Schools for natives of Alaska
Reindeer Stations
ARCTIC OCEAN
BERING SEA
NORTON SOUND
SEWARD PENINSULA
BAIRD MOUNTAINS
ENDICOTT RANGE
YUKON
KUSKOKWIM
ALASKA RANGE
CHUGACH MOUNTAINS
RUSSIAN
UNITED STATES
BERING STRAIT
NOATAK RIVER
KOBUK RIVER
YUKON RIVER
KUSKOKWIM RIVER
PORCUPINE
TANANA RIVER
Point Barrow
Barrow No. 2
Franklin Pt.
Icy Cape
Pt. Lay
Wainwright Inlet
Wainwright
Harrison Bay
Nuiqsut
Colville River
Cape Lisburne
C. Sabine
Pt. Hope
C. Thompson
C. Espenberg
Noatak
C. Krusenstern
Kivalina
Kotzebue
Shungnak
Ambler
Alatna R.
Koyukuk R.
Hughes
Allakaket
Bettles
Evansville
Kobuke No. 2
Shishmaref
Shishmaref Inlet
Wales
Diomede Islands
Cape Prince of Wales
Port Clarence
Teller
Nome
Golovin
White Mountain
Solomon
Beltz
Safety Sound
Fairbanks
Fairbanks No. 1
Mint River
Hering
Eagle
Circle
Circle Hot Springs
Pt. Hamlin
Stevens Camp
Rampart
Tolovana
Tanana
Chatanika
Chena
Fort Gibbon
Koyukuk
Kokrines
Louden
Ruby
Nulato
Kaltag
Unalakleet
Shaktolik
Isaac
Egavik
Golsovia
Pt. Romanof
Pitmeatalik
Stuart I.
St. Michael
Akulurak
Hamilton
Mt. Village
Andreafski
Pilot Station
Anvik
Holy Cross
Koserefsky
Ophir
Iditarod
Flat
Takotna
McGrath
Medfred
Tolstoi
Nenana
Healy
Lignite
Suntrana
Dunbar
Fairbanks
Ester
Gilmore
Dawson
Whitehorse
Carmacks
Selkirk
Minto
Tanana
Rampart
Circle
Eagle
Dawson
Yukon
Porcupine
Tanana
Kuskokwim
Alaska Range
Chugach Mountains
Wrangell Mountains
Copper River
Valdez
Cordova
Kennecott
Chitina
Gulkana
Tonsina
Copper Center
Mentasta
Nabesna
Slana
Eagle
Dawson
Whitehorse
Carmacks
Selkirk
Minto
Tanana
Rampart
Circle
Eagle
Dawson
Yukon
Porcupine
Tanana
Kuskokwim
Alaska Range
Chugach Mountains
Wrangell Mountains
Copper River
Valdez
Cordova
Kennecott
Chitina
Gulkana
Tonsina
Copper Center
Mentasta
Nabesna
Slana



ARCTIC OCEAN
Franklin Pt.
Barrow
Pt. Barrow
Wainwright
Icy Cape
C. Lisburne
C. Sabine
C. Thompson
Pt. Hope
C. Krusenstern
C. Espenberg
Kotzebue
Noatak
NOATAK RIVER
BAIRD MOUNTAINS
KOBUK RIVER
Shungnak
Kiwalik
Candle
Deering
PENINSULA
SEWARD
Shelton
NORTON SOUND
Stuart I.
St. Michael
Unalakleet
Shaktolik
Koyukuk
Nulato
Kokrines
Ruby
Louden
KAIYUH MOUNTAINS
YUKON
Ophir
Iditarod
Holy Cross
Hamilton
ENDICOTT RANGE
Colville River
Chandler Lake
Coldfoot
Bettles
Allakakat
ARCTIC CIRCLE
Stevens Camp
Rampart
Tanana
Hot Springs
Chatanika
Fairbanks
Chena
Nenana
Tortella
McCarty
TANANA
YUKON FLATS
Ft. Yukon
PORCUPINE RIVER
Circle
Eagle
Fortymile
Dawson
Ogilvie
Selkirk
STEWART RIVER
PEEL RIVER
MACKENZIE RIVER
Ft. Separation
Herschel I.
Demarcation Pt.
Martin Pt.
Flaxman I.
Halkett C.
Harrison Bay
Bonnetplume Pass
Mt. McKinley
ALASKA RANGE
WRANGELL MOUNTAINS
CHUGACH MOUNTAINS
ST. ELIAS
Mt. Spurr
Copper Center
Paxson
Chitina
Mentasta Pass
Chilkoot Pass
YUKON TERRITORY
BRITISH COLUMBIA
Lake Minchumina
Macmillan River
Pelly
Lewes River
Klotassin River
White River
Kuskokwim
Bethel
Akiak


BERING SEA
NORTON SOUND
YUKON
KUSKOKWIM BAY
BRISTOL BAY
ALEUTIAN ISLANDS
NORTH PACIFIC OCEAN
GULF OF ALASKA
ALASKA RANGE
KENAI MOUNTAINS
CHUGACH MOUNTAINS
WRANGELL MOUNTAINS
ALASKA PENINSULA
KODIAK ISLAND
PRINCE WILLIAM SOUND
NEAR ISLANDS
RAT ISLANDS
FOX ISLANDS
PRIBILOF ISLANDS
SHUMAGIN IS.
West of Greenwich
East of Greenwich