UNITED STATES BUREAU OF EDUCATION
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REPORT ON THE WORK OF THE BUREAU OF EDUCATION FOR THE NATIVES OF ALASKA, 1912-13

WASHINGTON
GOVERNMENT PRINTING OFFICE
1914

A TYPICAL REINDEER HERD.

"The one constructive thing done by this Government on behalf of Alaska in nearly half a century was the importation of reindeer."—Franklin K. Lane.

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REPORT ON THE WORK OF THE BUREAU OF EDUCATION FOR THE NATIVES OF ALASKA, 1912–13.

PART I.—GENERAL SUMMARY.

REPORT ON EDUCATION.

During the fiscal year ended June 30, 1913, the field force of the Alaska school service consisted of 5 superintendents, 109 teachers, 11 physicians (1 of whom also filled another position), 9 nurses, and 3 hospital attendants. Seventy-seven schools were maintained, with an enrollment of 3,563, and an average attendance of 1,797.

CHARACTER OF THE WORK.

In Alaska there are, approximately, 25,000 natives in villages ranging from 30 or 40 up to 300 or 400 persons, scattered along thousands of miles of coast line and on the great rivers. Some of the villages on remote islands or on the frozen ocean are brought into touch with the outside world only once or twice a year, when visited by a United States revenue cutter on its annual cruise or by the supply vessel sent by the Bureau of Education. During eight months of the year all of the villages in Alaska, with the exception of those on the southern coast, are reached only by trails over the snow-covered land or frozen rivers. In spite of the difficulties of the problem a United States public school has been established in each of 77 villages. In many instances the school is the only elevating power in the native community.

Every teacher is a social worker, who, in addition to performing the routine work in the schoolroom, strives in every possible way to promote the physical, moral, and industrial welfare of the natives, adults as well as children. In the schoolrooms the endeavor is made to impart to the children such instruction as will enable them to live comfortably and to deal intelligently with those with whom they come in contact; instruction in carpentry, cooking, and sewing is emphasized. Each schoolhouse is a social center for the accomplishment of practical ends. Many of the buildings contain, in addition to the recitation room, an industrial room, kitchen, quarters

of the teacher, and a laundry and baths for the use of the native community. The schoolroom is available for public meetings for discussion of affairs of the village or, occasionally, for social purposes.

In the native villages the teachers and nurses endeavor to establish proper sanitary conditions by inspecting the houses, by insisting upon proper disposal of garbage, and by giving instruction in sanitary methods of living. Natives are encouraged to replace their filthy huts by neat, well-ventilated houses. In some sections the natives have been taught to raise vegetables, which are a healthful addition to their usual diet of fish and meat.

There are extensive regions in which the services of a physician are not obtainable. Accordingly, it often becomes the duty of a teacher to treat minor ailments, to render first aid to the injured, or to care for a patient through the course of a serious illness.

In its endeavor to safeguard the health of the natives of Alaska, the Bureau of Education maintains four small hospitals in important centers of native population; contracts with three hospitals for the treatment of diseased natives; employs traveling physicians who devote their entire time to medical and sanitary work among the natives in their respective districts; employs nurses who assist the physicians and do exceedingly valuable work among the children and in the villages; and provides medical supplies and textbooks to the teachers to enable them to treat minor ailments and intelligently to supervise hygienic measures. The entire medical and sanitary work of the Bureau of Education in Alaska is under the supervision of an officer of the Public Health Service on special detail.

For the immediate supervision of its work among the natives of Alaska, the Bureau of Education depends upon its five district superintendents, men of proved ability and fidelity, who, under the provisions of the rules regulating the service, have the greatest freedom of action consistent with the ultimate responsibility of the Commissioner of Education.

MEDICAL WORK.

Among the most urgent needs of the natives of Alaska is protection against the diseases which prevail among them to an alarming extent. There is no specific appropriation for the support of medical work among the natives of Alaska. For several years the Bureau of Education has been striving, without success, to secure funds for the establishment of well-equipped hospitals and for the employment of a sufficient number of physicians and nurses. Under the terms of the appropriation for "Education of natives of Alaska" the Bureau of Education can employ physicians and nurses for work among the

Alaska natives, but it can not erect the hospitals which are greatly needed. Of the appropriation for the education of natives of Alaska for the fiscal year ending June 30, 1913, $31,758.13 was expended for medical work, including: (1) The maintenance of hospitals in rented buildings at Juneau and Nushagak; (2) the maintenance of improvised hospitals in school buildings at Nulato and Kotzebue; (3) payments under contract with the Holy Cross Hospital at Nome, with the Fairhaven Hospital at Candle, and with the Cordova Hospital for the treatment of diseased natives upon the application of a superintendent, physician, or teacher in the Alaska school service; (4) the employment of physicians and nurses in the hospitals and in fieldwork in their respective districts; and (5) furnishing medicines and medical books to the teachers for use in relieving minor ailments. Nearly 1,800 cases were treated in the hospitals at Juneau, Nushagak, Nulato, and Kotzebue during 1912–13. The most prevalent diseases were tuberculosis, trachoma, rheumatism, and venereal diseases; the surgical operations included excisions for tubercular diseases of the bones, the removal of tubercular glands, laparotomies, curetting of ulcers, setting broken bones, sewing up recent wounds, and excisions of hemorrhoids, cataracts, abscesses, tonsils, and adenoids. During the year epidemics of infantile paralysis at St. Michael and of diphtheria at Nulato were checked by physicians employed by the Bureau of Education. At Nulato, under the provisions of the health law passed by the Alaska Territorial Legislature at its first session, Dr. Bruce H. Brown established effective quarantine.

In March, 1912, upon the request of the Secretary of the Interior, Passed Asst. Surg. Emil Krulish, of the Public Health Service, was detailed for service in Alaska, in order that the medical work among the natives might have expert supervision. Dr. Krulish spent from April to November investigating health conditions in the native settlements in southeastern Alaska, in western Alaska as far as Cook Inlet, on the Yukon River, and in the vicinity of Nome. In his report Dr. Krulish states that in his opinion 15 per cent of the native population of Alaska is infected with tuberculosis in its varying forms, both active and latent, while in 7 per cent it is present in its active stages. Trachoma, rheumatism, and venereal diseases also prevail to a considerable extent in many of the native villages.

An appropriation of at least $125,000 is needed to establish an Alaska medical service with an efficient organization for the natives of Alaska. The good results already accomplished by the present inadequate service demonstrate that disease among the natives of Alaska can be eradicated if funds are provided for the establishment of well-equipped hospitals in important centers and for the employment of a sufficient number of physicians and nurses.

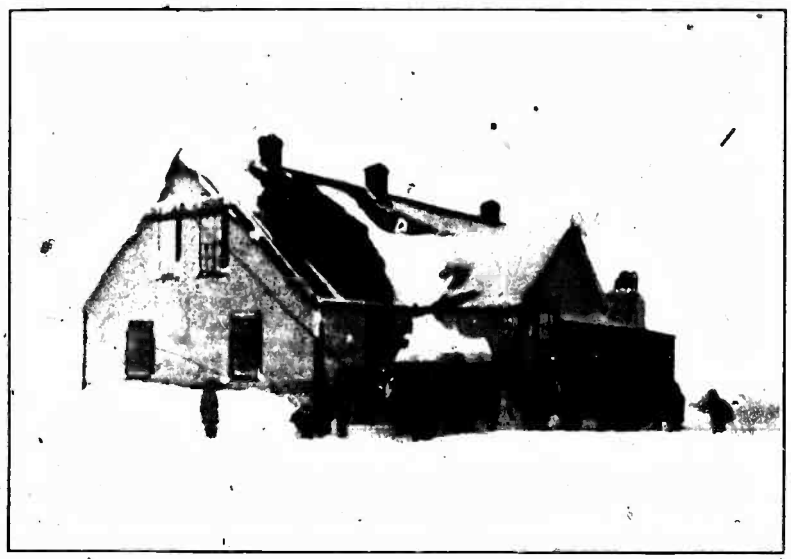
RESERVATIONS.

Experience has proved the wisdom of reserving, in certain localities, tracts of land exclusively for the use of the natives of Alaska, where, secure from the evil influence of unprincipled white men, the natives can build up their own industries. By Executive order, June 19, 1912, a tract of approximately 12 square miles on the west coast of Prince of Wales Island, in southeastern Alaska, was reserved for the use of a colony of natives who had migrated thither from the villages of Klinquan and Howkan and founded a settlement which they named Hydaburg. Under the supervision of the teacher of the United States public school the Hydaburg Trading Co. was organized to transact the mercantile business of the settlement and the Hydaburg Lumber Co. to operate a sawmill. These enterprises have been eminently successful. The prosperity of the Hydaburg colony caused the natives of Klukwan and of Klawock, in southeastern Alaska, to desire similar reservations upon which to conduct their own enterprises. By Executive order, April 21, 1913, a tract with an approximate area of 800 acres, bordering the Chilkat River, was reserved for the exclusive use of the Klukwan natives. Much of this land has agricultural value, and gardening will be systematically taught by the teacher of the United States public school. The proposed reservation at Klawock is within the Tongass National Forest; negotiations are in progress with the Forest Service for its reservation.

ECONOMIC AID TO NATIVES.

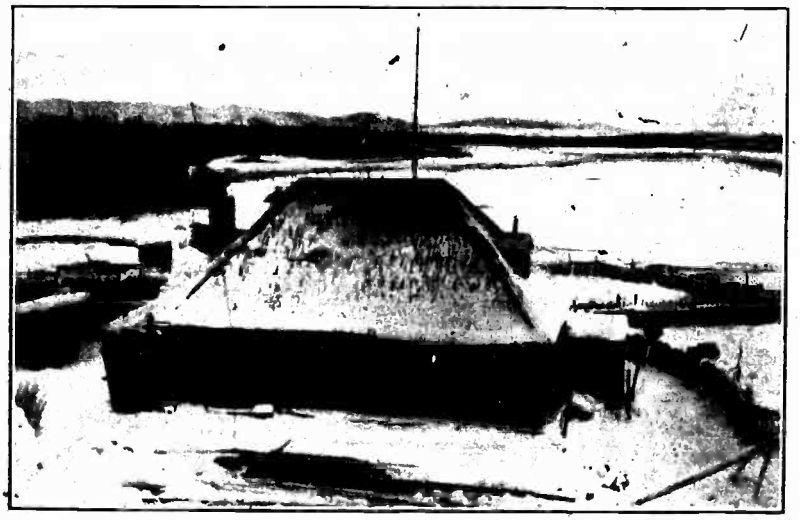
The reindeer service.—A very important part of the work of the Bureau of Education for the natives of Alaska is the assistance rendered them in their economic and industrial development. Foremost among the enterprises undertaken in this direction is the reindeer service, which in the 20 years of its existence has become a vast wealth-producing native industry in northern and western Alaska. At an average of $25 per head the 30,532 reindeer owned by the natives June 30, 1913, represented a capital of $763,300. The total income of the natives from the reindeer industry during the same fiscal year was $66,966, exclusive of the value of the meat and hides used by the natives themselves.

Cooperative stores.—Throughout Alaska there are in small native villages some traders who charge exorbitant prices for the imported food and clothing which, with the changing environment, have unfortunately become necessities of life for the natives. Valuable furs and other native products are frequently bartered for imported goods at rates which keep the natives hopelessly in debt to the traders. In very many villages there are less than 100 natives; even the legitimate freight and profit which any trader must charge is a heavy



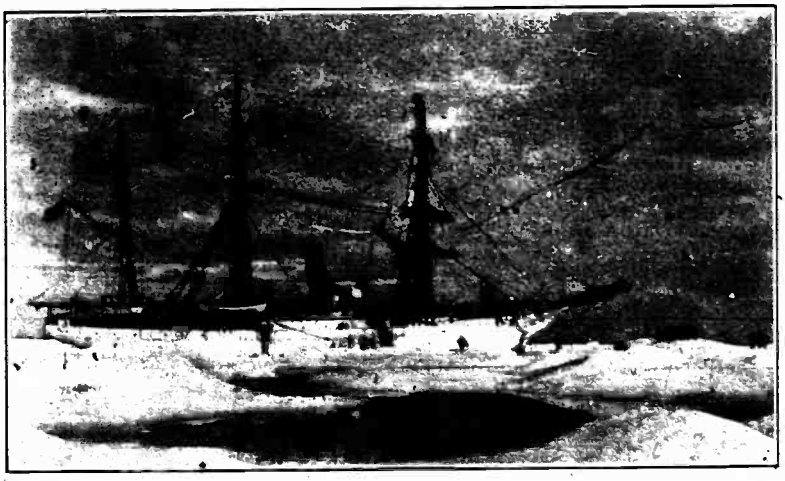
A. UNITED STATES PUBLIC SCHOOL, BARROW.

The northernmost school in the world.



B. UNITED STATES PUBLIC SCHOOL, SHUNGNAK.

Situated on a river which flows into the Arctic Ocean.



A. THE U. S. S. "BEAR" IN THE ICE PACK, ARCTIC OCEAN, AUGUST, 1913.

B. THE UNITED STATES HOSPITAL, KOTZEBUE, ARCTIC ALASKA.

burden on such small settlements. The Bureau of Education therefore fosters the establishment of cooperative stores and other cooperative enterprises owned and managed by the natives themselves. By thus relieving themselves of the burden of the profit exacted by the middleman, the natives are able to secure the necessities of life at the lowest prices and can at their own local stores obtain equitable value for their furs, ivory, woven baskets, and other native products. The wisdom of the policy of thus assisting the natives to help themselves has been especially demonstrated at Hydaburg, in southeastern Alaska, where, under the general oversight of the teacher, the native management of the cooperative store, after 12 months of existence, was able to declare a cash dividend of 50 per cent and still had funds available toward the erection and equipment of a larger store building. Native stores have for several years been successfully conducted at Wales and Gambell in northern Alaska.

For many years economic conditions have been especially deplorable among the natives of Atka, a remote island in the Aleutian chain, visited only by one of the revenue cutters on its annual cruise and by a trading schooner. On this untimbered island the local price for rough lumber was $50 per thousand and $8 per thousand for shingles, with proportionate charges for the articles of clothing and for the food supplies kept by the local trader. For each of the skins of the few blue foxes caught the natives received from the trader goods averaging $8 in value. In Seattle rough lumber sells for $12 per thousand, and shingles at $2.25 per thousand, and the blue fox skins sent out by the Atka natives during the summer of 1913 brought at public auction in Seattle from $17.10 to $66.50 each, according to quality. In April, 1913, it was found possible, with the cooperation of the Revenue-Cutter Service and philanthropic merchants in Seattle, to aid the natives of Atka to establish their own store. The merchants consented to advance the original stock for the store to the value of about $1,500, and measuring approximately 15 tons, which the Revenue-Cutter Service delivered at Atka. Under the direction of the teacher, a local cooperative store has been established, and the natives will as rapidly as possible pay the Seattle merchants for the goods advanced. Detailed reports of the operations of the store will be submitted to the chief of the Alaska Division, and, with the approval of the Treasury Department, the commanding officer of the revenue cutter visiting Atka will audit, from time to time, all financial transactions connected with the enterprise and aid in every way in its successful operation.

Sale of native products.—One of the problems of the work has been to provide a market for the furs and ivory obtained by the Eskimos on the shores of Bering Sea and the Arctic Ocean and in other remote

regions. Formerly it was possible for these natives to dispose of their wares only to local traders. With the extension of the mail service, many natives now forward by mail packages of fox, lynx, mink, and hair seal to the supply and disbursing office of the Alaska Division in Seattle, which, through the Seattle Fur Sales Agency, sells the furs by public auction to the highest bidder. The net proceeds of furs, ivory, and whalebone sold in Seattle for the natives during the fiscal year ended June 30, 1913, was $4,144.

Salmon industry.—A successful experiment in salting and exporting salmon bellies was conducted by the natives of Tatitlek during the summer of 1913, under the instruction and supervision of the teacher. In the spring a wholesale dealer in salt fish in Seattle furnished to the Tatitlek natives 100 barrels of salt for guaranteed prices on the various species of salmon; the Bureau of Education provided the fishing equipment, including one drag seine and two gill nets. As a result of the season's work, 130 barrels of salted salmon bellies have been sent to Seattle by the Tatitlek natives, which will net them more than $1,000. The law requires that the natives must preserve the backs of the fish and use them for food. Accordingly, as the result of this undertaking, the Tatitlek natives will have, in addition to the cash received, approximately 75,000 smoked salmon for winter use.

LEGISLATION.

Among the most urgent needs of the work of the Bureau of Education for the natives of Alaska have been (1) legislation compelling regular attendance in the schools, (2) legislation giving the employees of the Bureau of Education in Alaska power legally to enforce in the native villages obedience to their instructions with reference to matters relating to health, and (3) legislation regulating the civic rights of the natives. It is gratifying that at its first session the Alaska Territorial Legislature took action regarding two of these matters. The compulsory school attendance law makes attendance obligatory upon all native children between the ages of 8 and 16 (unless physically or mentally incapacitated) residing within 1 mile of a United States public school.

The law regulating the registration and restriction of communicable diseases in Alaska provides that in any native village any representative of the Bureau of Education shall have power as health officer to enforce quarantine regulations, to cause garbage to be removed, to disinfect persons, houses, or property, and to cause furniture or household goods to be destroyed when they are a menace to the public health. Violations of the regulations made or disobedience of orders given under the authority of this law are pun-

ishable by a fine not exceeding $100 or by imprisonment for not more than 50 days, or by both fine and imprisonment. The Territorial legislature also passed a bill to amend the Penal Code of Alaska, making the soliciting, purchasing, or receiving of liquor by a native a criminal offense.

RECOMMENDATIONS.

1. Medical relief.—Adequate and special provision for the medical and sanitary relief of the Eskimos, Indians, Aleuts, and other natives of Alaska is imperative. Most of these natives live in villages far away from any white settlement in which there is a practicing physician, and must depend on Government physicians, nurses, and teachers for ordinary medical attention and care. The use of part of the educational appropriation for medical relief is an emergency measure dictated by the absolute necessity for action. The entire appropriation is urgently needed for the support of the schools and to promote the industrial development of the natives. Under a decision of the comptroller this appropriation can not be used in erecting hospitals. Without hospitals for the segregation and proper care of natives afflicted with tuberculosis, trachoma, and other communicable diseases, it is impossible to reduce their prevalency. An appropriation of at least $125,000 is needed to establish a medical service among the natives of Alaska with an efficient organization. This is a matter of vital importance not only to the natives but also to white settlers in Alaska.

2. Legislation regulating the civic rights of the natives.—Provision should be made for the acquiring of citizenship by properly qualified natives. At the first session of the Territorial legislature a bill was introduced creating a board of Indian commissioners in each judicial district (of which board the superintendent of the United States public schools residing in each judicial district should be a member ex officio) and providing that said board, upon application in due form, shall issue certificates of citizenship to natives found to be qualified. The native applying for citizenship must, under oath, renounce his adherence to tribal customs. No certificate of citizenship should be issued to a native unable to read and write the English language. This bill failed of passage; it is to be hoped that it will receive favorable consideration by the Territorial legislature at its next session.

3. Transportation.—The recommendation is repeated that the Bureau of Education should own and maintain a light-draft, seagoing power schooner, capable of carrying from 250 to 300 tons, in which to transport teachers, building materials, and school supplies from Seattle to the remote schools on Bering Sea and the Arctic Ocean. The possession of such a vessel would enable the Bureau of Edu-

cation to carry its employees to and from its numerous schools remote from the regular lines of travel with some degree of safety and comfort. The responsibility of sending teachers across the Pacific Ocean in such small, uncomfortable, and heavily laden vessels as have hitherto been used has caused the officials of the Alaska division no small degree of uneasiness. The present arrangement is expensive. In a few years such a vessel as is desired would pay for itself in the saving of freight charges alone. Moreover, it would provide satisfactory means of summer inspection by superintendents and physicians, and, being under the complete control of the bureau, these officials could take sufficient time to perform their duties thoroughly in the various villages visited. In addition to transporting passengers and freight, such a vessel would be very useful also as a means of instructing natives in navigation, engineering, and seamanship. By its use it would also be possible economically to supply the natives in the untimbered regions with materials for use in constructing sanitary houses, and to aid them in developing fishing industries. Of the 25,000 natives in Alaska, at least 20,000 live near salt water.

4. Appropriations.—It is only during July, August, and September that supplies can be delivered at places in the interior of Alaska and on the shores of Bering Sea and the Arctic Ocean. In order to insure delivery before those regions are again closed by ice, supplies should leave Seattle not later than June 1 of each year. The appropriation for the support of the work of the Bureau of Education in Alaska, carried in the sundry civil bill, sometimes does not become available until late in the summer, with the result that the officials immediately responsible for the work of the Bureau of Education in Alaska are compelled hastily to send appointees and supplies just before the closing of navigation in these northern waters, when severe storms are encountered and the rivers are beginning to freeze. Occasionally, on account of late shipment, it has been necessary to send supplies to their destination hundreds of miles over the frozen country, at heavy expense and with great delay. Provision should be made for the availability of funds early in each summer.

5. Protection of walrus, polar bear, deer, reindeer, and caribou.—The threatened extermination of walrus in Alaskan waters demands attention. During the past three years, owing to the increased demand for walrus hide and ivory for commercial purposes, well-equipped expeditions in large power boats have killed numbers of walrus in northern Bering Sea and in the Arctic Ocean. The meat of the walrus is a staple article of food among the Eskimos, and its skin is the principal material used in the construction of their indispensable boats. Since the systematic hunting of walrus has been

undertaken by white men very few walrus have been obtained by the natives, the result being a shortage of food in some of the villages along the Arctic coast. It is therefore suggested that this subject be brought to the attention of the Department of State, with a view to ascertaining the feasibility of action to secure a treaty between the United States and Russia, and the other powers concerned, for the purpose of protecting the walrus in Bering Sea and in the Arctic Ocean.

It is recommended that the regulations of the Department of Commerce for the protection of fur-bearing animals in Alaska be amended so as to establish an open season for the killing of polar bear between September 15 and June 15. The strict enforcement of the present regulations forbidding the killing of polar bear at any time would work a hardship on some of the Alaskan Eskimos inhabiting the shores of Bering Strait and the Arctic Ocean. While most of the polar bear taken by these people are killed on the ice from 3 to 10 miles from the shore, a few stragglers are unlawfully shot while seeking food on the beach, often when robbing the native caches. The possession of a few skins taken in this manner should not jeopardize the other skins which are taken legally beyond the 3-mile limit, and cause an Eskimo to suffer through the over-zealous activities of game wardens or other officials. Polar bears move on and with the floating ice. Their habitat is not a fixed one; therefore any regulation which can not protect them on the high seas can have little or no influence in preventing their extermination.

In order to protect deer, reindeer, and caribou from the ravages of wolves, it is recommended that the Alaska game law be amended so as to place a bounty of $15 per head on wolves. Protection against the ravages of timber wolves is especially needed on the islands of southeastern Alaska, where wolves are rapidly exterminating the deer once found there in large numbers. The wolves seem to kill from pure love of slaughter; often the carcasses of deer are found untouched save for wounds on the neck and shoulder.

LIST OF PERSONS IN THE ALASKA SCHOOL SERVICE, 1912–13.

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

EMPLOYEES IN THE WASHINGTON OFFICE.

William Hamilton, Alaskan assistant, Pennsylvania.
David E. Thomas, bookkeeper, Massachusetts.
Julius C. Helwig, junior clerk, to February 15, 1913, Indiana.
Mrs. Lottie E. Condron, stenographer and typewriter, District of Columbia.
Harry Brimer, under clerk, March 16, 1913, to May 25, 1913, Tennessee.
James O. Williams, stenographer and typewriter, from June 16, 1913, 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, clerk, Washington.
Julius C. Helwig, clerk, from February 16, 1913, Indiana.
Miss Florence P. Hutchinson, stenographer and typewriter, Washington.

EMPLOYEES IN ALASKA.

District superintendents of schools.

Walter C. Shields, northwestern district, Nome.
Andrew N. Evans, western district, Unalakleet.
George E. Boulter, upper Yukon district, Tanana.
Henry O. Schaleben, southwestern district, Seward.
William G. Beattie, southeastern district, Juneau.

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

Walter H. Johnson, Nome.

Physicians.

Emil Krulish, M. D., Public Health Service, on special detail.
Henry O. Schaleben, M. D., superintendent southwestern district, Seward.
Walter L. Barbour, M. D., Kotzebue.
Bruce H. Brown, M. D., Russian mission, Nulato, and lower Yukon region.
Walter W. Council, Cordova, from November 16.
Linus H. French, M. D., Nushagak.
Paul J. Mahone, M. D., Juneau.
Daniel S. Neuman, M. D., Nome.
Ovid B. Orr, M. D., Akhlok.
James A. Payzant, M. D., Chitna, from November 16.
J. W. Reed, M. D., Gambell.
Curtis Welch, M. D., Council (contract physician).

Nurses and teachers of sanitation.

Mrs. Anna G. Barton, Kogiung, August 11, 1912, to June 30, 1913.
Miss Mabel H. Berg, Russian mission, September 1, 1912, to June 30, 1913.
Mrs. Clara M. Brown, Nulato, October 1, 1912, to June 30, 1913.
Miss A. Charlotte Doren, southeastern district of Alaska, July 1, 1912, to August 31, 1912.
Miss Esther Gibson, southeastern district of Alaska, February 1, 1913, to April 30, 1913.
Mrs. Ruth Hawkesworth, Hydaburg, November 1, 1912, to May 31, 1913.
Miss Paula Hubbert, Juneau, October 1, 1912, to June 30, 1913.
Miss Elsie H. Peterson, Juneau, July 1, 1912, to September 30, 1912.
Miss Jean V. Rankin, Juneau, July 1, 1912, to January 31, 1913.
Miss Stella E. Rasmussen, Juneau, October 1, 1912, to June 30, 1913.
Mrs. Marie B. Slightam, Juneau, July 1, 1912, to August 31, 1912.
Miss Carrie L. Whitten, Nushagak, July 16, 1912, to June 30, 1913.

Contract hospitals.

Holy Cross Hospital, Nome.
Fairhaven Hospital, Candle.
Cordova Hospital, Cordova.

Teachers, school attendance, and length of employment, 1912–13.

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

Schools.	Teacher.	Appointed from—	Average daily attendance.	Enrollment.	Months teacher employed.
Barrow	D. W. Cram (July)	Washington	71	108	12
	Mrs. Belle Cram	....do			
	Miss Alice Ahlook	Alaska			
Buckland	Mrs. Iva K. Taber (Nov.-Apr.)	....do	14	20	5½
Council	Charles W. Snow (July)	Maine			
	Mrs. Lulu J. Welch	Alaska	20	39	6
Deering	Miss Martha Hunnicutt	California	31	56	7
	Mrs. Iva K. Taber (Sept.-Oct.)	Alaska			
	Miss Florence Pommok	....do			
Gambell	Miss A. C. Anderson (July)	Nebraska			
	Miss Cora B. Hawk	Pennsylvania	55	100	12
Golovin	Miss Anna A. Hagberg	Illinois	42	65	8
	Miss Mary K. Westdahl	Alaska			
Icy Cape	J. V. Geary	California	23	33	12
	Mrs. Eva W. Geary	....do			
	Miss Hanna Ahneevuk	Alaska			
Igloo	H. D. Reese	Pennsylvania	20	34	12
Kivalina	J. H. Maguire	Alaska	26	69	10½
	Raymond A. Bates (July)	....do			
	Miss Margaret Bates (July)	....do			
Kotzebue	Miss Margaret White	....do	27	63	7
	Mrs. Barbara Barbour	North Dakota			
Noatak	Frank B. Snowden	Ohio	31	40	10½
Nome	Walter H. Johnson	Alaska	20	36	12
	Miss A. C. Anderson (Aug.-June)	Nebraska			
Point Hope	Fred M. Sickler	Indiana	21	77	12
Selawik	Robert Samms	California	21	46	10½
Shishmaref	Arthur Nagozruk (Oct.-Apr.)	Alaska	22	28	6½
Shungnak	Charles D. Jones	Washington	36	70	12
Sinuk	W. B. Van Valin	....do	16	26	9
Teller	Miss J. Enesstvedt	....do	16	26	7
Wainwright	Fay R. Shaver (July)	....do	30	43	12
	Miss Margaret Bates (Aug.-June)	Alaska			
	Raymond A. Bates	....do			
Wales	Miss Mattie Caldwell	Missouri	50	71	12
	Miss Edna Cameron	Alaska			
	Charles Menadelook	....do			
	Arthur Nagozruk (Sept.)	....do			
Total			592	1,050	

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

Akiak	John H. Kilbuck	Alaska	28	49	12
Akulurak	Miss Mary Laurentia	....do	38	43	7
Bethel	Samuel H. Rock	....do	25	41	8
Goodnews Bay	Claude M. Allison	Washington	15	24	12
Hamilton	Henry H. Fuller	....do	8	29	10
	Mrs. Martha A. Fuller	....do			
Hooper Bay	Chas. F. Richardson	....do	35	93	12
Kosarefsky	Onesimo Lacouture	Alaska	105	108	8
	Miss Mary Thecla	....do			
Louden	Mrs. E. E. Eby	....do	8	27	10
Mountain Village	Walter E. Cochran	West Virginia	18	26	10
	Mrs. Minnie Cochran	....do			
Nulato	Miss Mary W. Salley	Alaska	12	25	8
Pilot Station	George S. Bowers	Washington	14	52	10
Quinhagak	Mrs. A. C. Schwalbe	Alaska	24	36	8
Russian Mission	Hanson G. Berg	Washington	5	21	9
St. Michael	George B. Hefler	....do	19	52	12
	Miss Annie Aloka	Alaska			
Shageluk	Henry Dull	Kansas	12	20	10½
	Mrs. Florence Dull	....do			
Shaktoolik	Misha Ivanoff	Alaska	11	19	7
Unalakleet	E. E. Van Ness	Tennessee	43	61	12
	Miss Esther Johnson	Oregon			
	Samuel Anaruk	Alaska			
	Miss Ebba Tomron	....do			
Total			420	736	

Teachers, school attendance, and length of employment, 1912–13—Continued.

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

Schools.	Teacher.	Appointed from—	Average daily attendance.	Enrollment.	Months teacher employed.
Circle	Miss Ethel Ellis	Missouri	14	20	10
Eagle	Miss Lulu Graves	Alaska	18	31	12
Kokrines	Julius Jette	....do	3	15	6
Rampart	L. E. Rivenburg	New York	11	18	11
Tanana	Miss Jessie M. Harper	California	14	34	9
	Miss Margaret Harper	....do			
Yukon	Miss Hannah E. Breece	Alaska	42	96	8
Total			95	214	

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

Akhiok	Mrs. V. E. Orr	California	13	31	8
Atka	Harry G. Seller	Washington	30	50	10
	Mrs. K. D. Seller	....do			
Chignik	Mrs. Lura Olsen	Alaska	12	23	11½
Chogiung	Miss Mary Watson	Washington			
	J. S. Mullins	Alaska	25	42	10
Copper Center	L. A. Jones	Washington	9	37	12
Iliamna	Joseph L. Brown	Alaska	18	23	11½
	Mrs. S. R. Brown	....do			
Kanakanak	Mrs. Isabel Gilman	....do	17	23	11½
Kenai	Miss W. E. Dolan	Oregon	40	74	9½
	Miss A. M. Dolan	....do			
Kogiung	George A. Barton	Washington	13	22	10½
Kulukak	F. G. Payton	....do	18	27	10½
Nushagak	Mrs. Corinne Call	....do	16	27	12
Seldovia	P. H. Nash	....do	21	34	11
Susitna	Mrs. J. M. Nagley	Alaska	9	27	10
Tatitlek	C. W. Cook	Washington	28	42	8
	Mrs. Mary E. Cook	....do			
Togiak	J. S. Calkins	Montana	14	28	12
Tyonek	Roger C. McNally	Alaska	25	29	12
	Harry N. Cooper	Washington			
Ugashik	John W. Fuller	....do	16	26	10½
Unalaska	Robert D. Scott	Pennsylvania	67	80	10
Total			391	645	

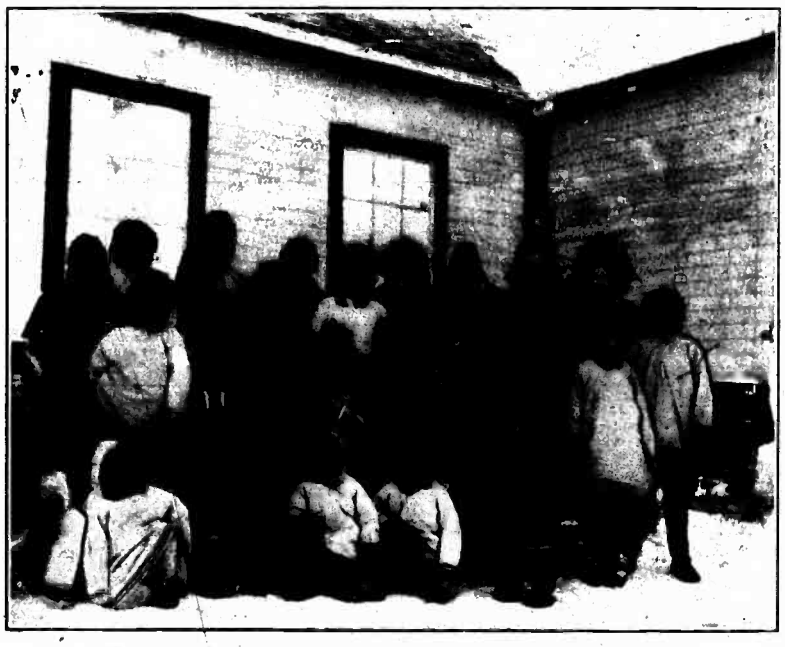
SOUTHEASTERN DISTRICT—NORTH PACIFIC COAST REGION EAST OF 141°.

Craig	Miss Lacie G. Webster	Alaska	13	21	4½
Douglas	Miss Isabel S. Thursby	Illinois	11	71	7½
	Miss Edna Dean	Washington			
Haines	Miss E. N. Birkinbine	Alaska	14	45	7
Hoonah	G. A. Danforth	Washington	12	81	9½
	Mrs. Rena C. Danforth	....do			
Hydaburg	C. W. Hawkesworth	Alaska	48	86	12
	Miss Margaret Hamilton	....do			
	R. M. Whitcomb	....do			
Juneau	Miss Elnora G. Ginther	Oregon	10	53	7½
Kake	Miss Nora Dawson	Missouri	27	73	7½
Kasaan	Miss Edith G. Nelson	Alaska	17	27	7
Killisnoo	Raphael Goodheart	Washington	15	64	9½
	Mrs. Leona R. Goodheart	....do			
Klawock	Mrs. S. E. Edmunson	Idaho	34	82	7½
	Miss Mary Costa	Alaska			
Klukwan	B. B. McMullin	Washington	24	56	9
	Miss Mary Watson	....do			
Loring	Miss Helen C. Moyer	Alaska	13	25	7
Saxman	Miss A. C. Doren	....do	6	43	7
Sitka	Miss Cassia Patton	....do	25	104	8
	Miss J. H. Wright	Washington			
Wrangell	Miss Nellie M. Taylor	Nebraska	12	48	7½
Yakutat	E. M. Axelson	Illinois	18	49	8
Total			299	928	

A. ICY CAPE VILLAGE, ARCTIC ALASKA

B. ESKIMOS ON THE ARCTIC COAST.

A. ESKIMO GIRLS.



B. TEACHERS AND PUPILS, WAINWRIGHT, ARCTIC ALASKA.

Summary of teachers, school attendance, and length of employment for the year 1912–13.

	Schools.	Teachers.	Pupils.	Daily attendance per school.	Enrollment per school.
Northwestern district	20	30	1,050	30	53
Western district	17	24	726	26	45
Upper Yukon district	6	7	214	16	36
Southwestern district	18	24	645	22	36
Southeastern district	16	24	928	19	58
Total	77	109	3,563	23	46

Summary of expenditures from the appropriation for "Education of natives of Alaska, 1913."

Appropriation		$200,000.00
Salaries of officials and clerks	$15,414.72	
Salaries of superintendents	9,680.00	
Salaries of teachers	82,905.15	
Traveling expenses of inspectors, superintendents, and teachers	12,385.43	
Textbooks, stationery, apparatus, furniture, and industrial supplies	14,011.63	
Fuel and light	19,570.27	
Local expenses	2,229.14	
Repairs and rent	3,629.04	
Erection of buildings	5,843.04	
Sanitation and medical relief	31,758.13	
Relief of destitution	1,634.34	
Expenses of offices	784.52	
Reserved for contingencies	154.59	
Total		200,000.00

THE REINDEER SERVICE.

The reports from the reindeer stations for the fiscal year ended June 30, 1913, show a total of 47,266 reindeer distributed among 62 herds. Of the 47,266 reindeer, 30,532, or 65 per cent, were owned by 797 natives; 3,853, or 8 per cent, were owned by the United States; 5,047, or 11 per cent, were owned by missions; and 7,834, or 16 per cent, were owned by Lapps.

At an average value of $25 per head, the 30,532 reindeer owned by the natives represent a capital of $763,300. The total income of the natives from the reindeer industry during said fiscal year, exclusive of the value of meat and hides used by the natives themselves, was $66,966.

GROWTH OF THE ENTERPRISE.

The reindeer industry in Alaska began in 1892, with the importation by the Bureau of Education of 171 reindeer from Siberia. The importation continued until 1902, and a total of 1,280 were brought

from Siberia. The object of the importation was originally to furnish a source of supply for food and clothing to the Eskimos in the vicinity of Bering Strait. At that time the Eskimos on the vast untimbered grazing lands of the Arctic and Bering Sea coastal regions from Point Barrow to the Alaska Peninsula were nomadic hunters and fishermen, eking out a precarious existence upon the rapidly disappearing game animals and fish. In 20 years the reindeer industry has made of them civilized, thrifty men, having in their herds assured support for themselves and opportunity to acquire wealth by the sale of meat and skins to the white men in those regions. In addition to providing support for the natives, the reindeer furnish an assured food supply to the mining and trading settlements in Arctic and sub-Arctic Alaska in case of disaster during the long period of each year when those regions are icebound and inaccessible.

ADMINISTRATION.

The Alaska reindeer service is an integral part of the educational system of the Bureau of Education for northern and western Alaska. The district superintendents of schools are also the superintendents of the reindeer service; the teachers in charge of the United States public schools in the regions affected by the reindeer industry are ex officio local superintendents of the reindeer herds in the vicinity of their schools. The reindeer service is administered under the rules and regulations regarding the United States reindeer service in Alaska, approved by the Secretary of the Interior.

DISTRIBUTION.

The reindeer are distributed among the natives by a system of apprenticeship. At each station, promising and ambitious young natives are selected by the local superintendents as apprentices for a term of four years. In accordance with the rules and regulations, an apprentice receives 6, 8, and 10 reindeer at the close of the first, second, and third years, respectively, and 10 more at the close of the fourth year. Upon the satisfactory termination of his apprenticeship, an apprentice becomes a herder and assumes entire charge of his herd, subject to the rules and regulations. A herder must in turn employ and similarly distribute reindeer among his apprentices, thus becoming an additional factor in the extension of the enterprise. A native may also acquire reindeer by purchase from another native, upon condition that he will be governed by the provisions of the rules and regulations for the reindeer service.

A NATIVE INDUSTRY.

In order to make the natives preserve and accumulate the reindeer intrusted to them, and to preclude the possibility of the reindeer

industry being taken from the natives, no native has been permitted to sell or otherwise dispose of female reindeer to any person other than a native of Alaska. Strict adherence to this fundamental principle of the Alaska reindeer service has built up for the natives of northern and western Alaska an industry which is especially adapted to them and affords them assured means of support. There is grave danger that granting to the natives permission to dispose of female reindeer to white men would, unless scrupulously safeguarded, rapidly deprive the natives of their reindeer and destroy this great native industry which is the result of 20 years of careful oversight and fostering care. It is possible that the removal of the restriction prohibiting the sale of female reindeer to white men might, with watchful guidance, result in making reindeer raising in Alaska and the exportation of reindeer meat and hides an industry of great commercial importance.

EXPENDITURES.

The appropriation for "Reindeer for Alaska" for the fiscal year ending June 30, 1913, was $5,000, which was expended in furnishing food, tents, and clothing to the apprentices (who during the four years of their apprenticeship are to a certain extent prevented from providing food for themselves by hunting and fishing), and in defraying the expenses of establishing herds in new locations, which include hiring guides, also providing food, tents, and camp equipment for the native herders employed to transfer the reindeer.

Summary of expenditures from the appropriation for reindeer for Alaska, 1913.

Appropriation		$5,000.00
Salaries of chief herders	$671.10	
Support of apprentices	4,014.27	
Establishment of new herds	300.00	
Reserved for contingencies	14.63	
Total		5,000.00

General statistics of the Alaska reindeer service.

Stations and herds.	Established.	Total reindeer in herd.	Government reindeer.	Mission reindeer.	Lapps.		Natives.														Sled reindeer.[3]		Income from sale of meat, freighting, etc.			
							Herders.		Owners.[1]		Apprentices.								Total apprentices.	Total natives.	Reindeer owned.					
											Government.		Mission.		Lapps.		Herders and owners.									
					Number.	Reindeer owned.	Number.	Reindeer.	Number.	Reindeer.	Number.	Reindeer.	Number.	Reindeer.	Number.	Reindeer.	Number.	Reindeer.				Trained.	Being trained.	Mission.	Lapps.	Natives.	Total.
Barrow, No. 1	1898	1,118	128				5	497	27	289	2	23					6	181	8	40	990	19	30			$4,793	$4,793
Barrow, No. 2	1909	546					3	419	2	52							3	75	3	8	546	15	20			2,519	2,519
Bethel, No. 1	1913	247					3	223	4	24										7	247	$31	$5			$300	$300
Bethel, No. 2 (Kilbahlin)	1911	1,285			2	1,227									2	58			2	2	58	40				$1,200	$1,200
Bethel, No. 3 (Kivigiuk)	1912	516					5	493	2	11							2	12	2	9	516	36	2			$525	$525
Bethel, No. 4 (Nukluk)	1907	470					3	403									2	67	2	5	470	$41	$12			$550	$550
Bethel, No. 5 (Tauiksak)	1902	2,118			6	2,118																38			$1,500		$1,500
Bethel, No. 6 (Oungagtuli)	1913	455					3	405	6	16							2	34	2	11	455	$12	$4			$400	$400
Bethel, No. 7[4]	1901	1,300		1,144									5	156					5	5	156	$20	$5	$800			$800
Buckland	1911	839	102				3	613	9	59	1	17					2	48	3	15	737	24				$1,590	$1,590
Cape Douglas[4]	1911	670	1	6			8	596	5	24							3	43	3	16	663	12	$5			$800	$800
Cape Espenberg	1913	193					1	124	2	60							1	9	1	4	193	2				$400	$400
Chegiung[4]	1910	400	151								5	249							5	5	249	$6	$2			$600	$600
Council	1907	901	3	8			6	256	24	549							4	85	4	34	890	$15	$10			$2,000	$2,000
Deering, No. 1 (Lane River)	1905	658		3			5	536	14	88							1	31	1	20	655	19				1,166	1,166
Deering, No. 2 (Good Hope River)	1911	746		124			4	413	12	149			1	18			3	42	4	20	622	29	7	$200		$1,200	$1,400
Deering, No. 3 (Kugruk)	1913	376	1	1			2	193	10	169							2	12	2	14	374	16	3			$700	$700
Egavik	1907	842			1	801									1	41			1	1	41	19			1,311	395	1,706
Gambell	1900	966	47				7	824	2	22	1	38					1	35	2	11	919	37	3			2,355	2,355
Golovin, No. 1	1896	1,315		872			3	261	2	96			3	86					3	8	443	10		$1,400		$450	$1,850
Golovin, No. 2[4]	1908	1,100			1	1,100																$30	$10		$2,000		2,000
Golovin[4]	1907	1,300	33	6			7	684	3	546							2	31	2	12	1,261	$20	$10			$2,200	$2,200
Goodnews Bay	1909	692	338				4	274			3	80							3	7	354	35				$600	$600
Holy Cross	1911	468		468																		6	2	$400			$400
Hooper Bay	1912	385	303				1	22	1	3	5	57							5	7	82	16	6			$500	$500
Jay Cape	1906	567	36						8	470	2	39					2	22	4	12	531	18	16			1,142	1,142
Igloo, No. 1	1907	699	49				3	223	15	337							2	90	2	20	650	33	3			1,808	1,808

Igloo, No. 2	1912	905					5	573	15	393				1			1	29	1	21	905	37	2			1,751	1,751
Igiotolik (Bonanza)	1913	507	27				4	275	11	190				1			1	15	1	16	480	11				1,420	1,420
Igiotolik[4]	1910	954					4	721	12	146				2			3	87	3	19	954	11				3,056	3,056
Illamna, No. 1 (Kenai)	1905	240	67				2	79	2	48	2	46							2	6	173	[3] 25	[3] 4			[3] 400	[3] 400
Illamna, No. 2 (Koghonak)	1913	99					3	93									1	6	1	4	99	[3] 7	[3] 3			[3] 500	[3] 500
Kinak	1910	435	302				1	22	3	7	3	104							3	7	133	26				[3] 450	[3] 450
Kivaliña	1906	775	99				4	285	24	301	3	42					3	48	6	34	676	69	2			3,997	3,997
Kogiung	1909	247	50				2	120			3	77							3	5	197	10				[3] 400	[3] 400
Kotsebue, No. 1	1901	1,683		444			7	518	25	660			4	38			1	23	5	37	1,239	55	3	737		3,395	4,132
Kotsebue, No. 2 (Candle)	1910	[1] 1,675				6	1,675															[3] 25	[3] 5		[3] 2,000		[3] 2,000
Kulukak[4]	1912	200	108								5	94							5	5	94	[3] 10	[3] 2			[3] 300	[3] 300
Mountain Village	1908	483	246				1	66	2	7	6	164							6	9	237	14	6			894	894
Noatak	1910	674	161				1	77	16	184	4	252							4	21	513	44	7			120	120
Nome	1913	501	73				9	354	3	74										12	428	19				[3] 800	[3] 800
Point Hope	1908	1,357	168				6	904	17	236	2	12					2	37	4	27	1,189	37	33			4,966	4,966
Poker Creek	1913	437	189				4	248												4	248	11				[4] 500	[4] 500
Salt Lake (Imeruk)	1913	235					2	74	1	135							2	26	2	5	235	[3] 10	[3] 2			[3] 300	[3] 300
Selawik	1909	702	187	10			5	295	22	163	2	47							2	29	505	28	5			287	287
Shaktolik	1907	900	2				4	752	12	109							3	37	3	19	898	23				2,098	2,098
Shishmaref, No. 1	1905	762	52				6	580	6	101	1	6					2	23	3	15	710	18	7			[3] 1,150	[3] 1,150
Shishmaref, No. 2	1909	1,416					5	1,359	4	21							2	45	2	11	1,416	30				[3] 1,800	[3] 1,800
Spiahmarof, No. 3	1910	592					3	512	3	57							2	23	2	8	592	[3] 12	[3] 4			[3] 900	[3] 900
Shungnak	1907	754	134						16	196	8	424							8	24	620	35	8			915	915
Sinuk	1907	464	5	143			2	153	11	56			3	107					3	16	316	23				571	571
Spruce Creek	1912	353					3	182	7	171										10	353	[3] 10	[3] 4			[3] 750	[3] 750
Teller	1892	783		353			4	132	11	240			3	51			1	7	4	19	430	[3] 30	[3] 5	[3] 500		[3] 650	[3] 1,150
Togiak	1911	292	171								5	121							5	5	121	8	3			[3] 300	[3] 300
Tubutulik[4]	1910	340					1	211	3	129										4	340	[3] 20	[3] 2			[3] 650	[3] 650
Ugashik	1910	635	447								4	188							4	4	188	9	2			[3] 450	[3] 450
Unalakleet (North River)	1897	795	10	221			4	456	0	67			2	41					2	12	564	12	[3] 5	292		715	1,007
Unalakleet (South River)	1911	916	1		4	913			2	2										2	2	[3] 20	[3] 6		1,505		1,505
Wainwright	1907	1,207	155				12	695	27	270	2	34					1	53	3	42	1,052		94			1,189	1,189
Wales, No. 1, and Mint River[4]	1894 1911	2,598		1,242			3	572	20	572			4	212					4	27	1,356	[3] 20	[3] 6	[3] 1,500		[3] 1,800	[3] 3,300
Wales, No. 2	1908	1,178	9	2			5	937	18	153							2	77	2	25	1,167	53				[3] 1,300	[3] 1,300
Total		47,266	3,853	5,047	20	7,834	188	18,605	447	7,562	69	2,114	25	709	3	99	65	1,353	162	797	30,532	1,371	378	5,829	8,316	66,966	81,111

[1] By purchase or inheritance. [3] Included in total. [3] Estimated. [4] No report received; all figures estimated.

Increase in reindeer service from 1907 to 1913.

	1907	1913		1907	1913
Total natives owning reindeer	114	797	Sled reindeer:		
Herders and owners	57	635	Trained	445	1,371
			Partly trained	77	375
Government apprentices	17	69	Income of natives from reindeer	$7,783	$66,966
Mission apprentices	28	25	Total income from reindeer	$9,563	$81,111
Lapp apprentices	7	3	Percentage of reindeer owned by—		
Herders' and owners' apprentices	27	65	Government	23	8
			Missions	22	11
Total apprentices	79	162	Lapps	14	16
			Natives	41	65
Reindeer owned by natives	6,406	30,532			

Number of reindeer belonging to each class of owners in 1912–13.

Owners.	Number of reindeer.		Increase.		Per cent owned.	
	1912	1913	Number.	Per cent.	1912	1913
Government	3,776	3,853	77	2	9.8	8
Missions	4,511	5,047	536	12	11.7	11
Lapps	6,121	7,834	1,713	28	16.0	16
Natives	24,068	30,532	6,464	27	62.5	65
Total	38,476	47,266	8,790	23		

Annual increase and decrease of reindeer.

Years.	Balance from previous year.	Fawns surviving.	Imported from Siberia.	Butchered or died.	Total in herd, June 30.	Per cent of annual increase.	
						By fawns.	Net (since importation ceased).
1892			171	28	143		
1893	143	79	124	23	323	55	
1894	323	145	120	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	29	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		[2] 130	12,828	36	25
1907	12,828	4,519		1,508	15,839	35	23
1908 [3]	15,839	5,416		1,933	19,322	34	21
1909 [3]	19,322	6,437		2,844	22,915	33	18
1910 [3]	22,915	7,239		2,829	27,325	32	19
1911 [3]	27,325	9,496		3,192	33,629	35	23
1912 [3]	33,629	11,254		6,407	38,476	33	14
1913 [3]	38,476	13,681		4,891	47,266	35	23
Total		75,004	1,280	29,018		[4] 40	[4] 23

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

Showing cost and results of introduction of reindeer in Alaska.

	First ten years, (1893–1902).	Next five years, (1903–1907).	Last six years, (1908–1913).	Total.
Appropriations	$133,000	$99,000	$65,000	$297,000
Number of herds established	9	7	46	62
Number of natives becoming owners of reindeer	68	56	673	797
Average cost per Government apprentice	$1,956	$1,768	$96	$373
Number of reindeer passing into native ownership	2,841	3,565	24,126	30,532
Valuation of same	$71,025	$89,125	$603,150	$763,300
Income received by natives	$4,500	$5,500	$199,476	$209,476
Number of Government reindeer at end of period	2,247	4,684	3,853	3,853
Valuation of same	$56,175	$177,200	$96,325	$96,325

Wealth produced by introduction of reindeer in Alaska.

Valuation of 30,532 reindeer owned by natives in 1913, at $25 each	$763,300
Total income of natives from reindeer, 1893–1913	209,476
Valuation of 16,744 reindeer owned by missions, Laplanders, and Government, 1913	418,600
Total income of missions and Laplanders from reindeer, 1893–1913	71,795
Total valuation and income	1,463,171
Total Government appropriations, 1893–1913	297,000
Gain (392 per cent)	1,166,171

PART II.—DETAILED REPORTS.

The Alaska school service is of vast extent. If the map of Alaska were superimposed upon the map of the United States, the public schools for natives would fall in 21 different States. This great area has been divided into five school districts, each under the immediate supervision of a district superintendent of schools, as follows:

The Northwestern District, including the region north of Norton Sound and west of the mouth of the Koyuk River, drained by rivers to Bering Sea and the Arctic Ocean.

The Western District, including the region south or east of the mouth of the Koyuk River, drained by rivers to Bering Sea.

The Upper Yukon District, including the region east of the 156th meridian, drained by the Yukon River and its tributaries.

The Southwestern District, including the region drained by streams reaching the coast between Cape Newenham and the 141st meridian, together with the adjacent islands, and the Aleutian Islands.

The Southeastern District, including the region east of the 141st meridian.

One of these supervision districts contains fully 100,000 square miles, and the others average more than 65,000 square miles each. In visiting the widely separated schools a district superintendent must travel vast distances by sled over the frozen, trackless wilderness, or sometimes must risk his life on treacherous, tempestuous waters in a native canoe or unsafe power boat; he must endure the rigors of the Arctic winter, the violence of the northern storms, and the foulness of the native huts in which he must find shelter.

The western school district includes the recently established schools in the Eskimo villages on the low-lying coast between the Yukon and Kuskokwim Rivers, which are difficult of access on account of the treacherous shoals and the violent storms which are frequent in that region. In the following report, Supt. Evans describes the wreck of the *Wasp*, a small schooner in which he was returning from a tour of inspection. Before reaching land, Mr. Evans and his companions spent three days and four nights in the small dory, with no water and with no food except a little raw bacon.

A. THE SUPERINTENDENT OF THE NORTHWESTERN SCHOOL DISTRICT ON A TOUR OF INSPECTION

B. REINDEER AND HERDERS AT AKIAK, ON THE KUSKOKWIM RIVER, IN WESTERN ALASKA.

A. ESKIMO IN CLOTHING MADE OF REINDEER SKIN.

B. ALEUTIAN BASKET WEAVER.

SECTION 1.—REPORTS OF SUPERINTENDENTS.

REPORT OF A. N. EVANS, SUPERINTENDENT OF SCHOOLS IN THE WESTERN DISTRICT.

Considerable difficulty was encountered in securing a boat on which I could make the tour of inspection of the schools in the Kuskokwim region and deliver the supplies, the season being late and the rates high. The only suitable boats available were the *Seddon* and the *Wasp*, the former a 35-horsepower engine gasoline boat carrying about 21 tons, and the latter a two-masted schooner built at Unalakleet and containing a 20-horsepower engine. The *Wasp* was selected because she could carry more freight, and her rate was $198 less than the rate offered by the *Seddon*.

Dr. Reed and I were the passengers. Dr. Reed was destined for his new station at Bethel, and I was to make the round trip in order to see as much as possible of the tundra country and the new stations in the summer.

Leaving Nome about noon of August 5, we arrived at St. Michael about 8 a. m. the following morning, and proceeded to load the cargo for our schools which had been left there by the steamer from Seattle. The loading was completed late in the afternoon, and we planned leaving on the high tide early in the morning. We left the dock about 7 a. m., on the morning of the 7th, and proceeding through the canal reached the sea in the afternoon, and keeping outside the Yukon flats arrived off Cape Romanzoff about 10 p. m. of the 8th. A southwest wind had raised such a swell that it was dangerous to attempt to run into Hooper Bay in the dark, so we anchored for the night.

On the following morning the *Wasp* rounded Cape Romanzoff, and finding the narrow, winding channel proceeded into Hooper Bay, where we anchored within a few feet of the shore. The freight was unloaded on the muddy beach near the village, the school being several hundred yards distant on high ground.

Dr. Reed made an examination of the natives as far as possible, but considerable tact was necessary in dealing with these superstitious natives. They have been under the influence of the "medicine men" for many years and are not acquainted with physicians of the white race.

The village is composed of a group of igloos on a small knoll, the whole presenting the appearance of a beehive. The natives are very dirty and the igloos indescribably so. There are very few stoves in the igloos, and the natives have little of what might be considered property. They have been isolated from the whites to a large extent, and are more primitive in their habits and customs than any of the Alaskan natives known to me. The village is foul with filth that has been accumulating for years, and scattered about among this filth were the remains of dead dogs. We secured some kerosene at the school, and Mr. Richardson, the teacher, some natives, and I burnt most of the surface filth.

I have seen these natives three times previous to this present trip, each time in the winter. The attitude of the natives is becoming more favorable to the work of the school, and the results are becoming apparent, particularly among the children. There are about 500 natives within a radius of 50 miles of this school at various times during the year, and these natives receive their medical aid through the Hooper Bay school. The natives do not understand English, and in order to render relief in an intelligent manner the teacher should have a competent interpreter.

The reindeer herd has been located at this station about a year and a half, and the results are apparent. The fact that the herd is near leads the natives to have some confidence in their ability to maintain an existence in spite of the depletion of the natural resources upon which they have been accustomed to depend for a living.

Leaving Hooper Bay with a southwest wind and a heavy swell, the *Wasp* headed for Goodnews, which was reached after a three days' trip, most of the time in heavy seas. Navigation in these imperfectly charted waters is dangerous, and we were glad to reach a harbor so well protected as is land-locked Goodnews Bay. The United States Coast and Geodetic Survey has made a survey of the harbor, and it is to be hoped that its charts will become available soon. It is presumed that the careful charting of these dangerous waters will not only be of great assistance to navigators, but that the information thus furnished will tend to reduce the high freight rates that prevail in the Kuskokwim regions. The schoolhouse and village are about 12 miles from the entrance to the bay, and in order to reach the school it is necessary to follow a narrow channel, or, in the case of boats of 4 or 5 foot draft, to use the high tide. We arrived at the school a little after daylight and proceeded to unload the supplies. In passing through the village to reach the schoolhouse we were agreeably surprised at the personal cleanliness of the natives, as compared with their condition when the school was established. Mr. Allison has been unusually attentive to the care of the natives, and they show the results of his zeal, not only in their persons, but also in their desire to improve their surroundings.

Three small gardens in the village gave promise of vegetables of the hardier varieties, but most of the vegetables were injured by worms. This is the first year that the ground has been cultivated at this place, and it is hoped that the soil will become better after it has been used for a year or two. The conditions at this place are not very favorable for gardening.

The natives were summoned to the schoolhouse and examined by Dr. Reed. The appearance of the natives indicated that they were as healthy as the average natives.

The herd of reindeer at this place is under the direction of Wassili Kawagleg, chief herder. At the time of my visit, some of the herders had moved the deer back to the mines where they were selling some of their deer. The annual report was not yet completed at the time of my visit, but the reindeer men informed me that the increase was a little above the average.

About 200 miles south of Goodnews are the salmon canneries, among the greatest in the world. At certain times of the year the fish are plentiful in Goodnews, but the natives have not learned to use them except in the dry form. They use the dry fish for food and for feeding the dogs. A limited amount of the dry fish is sold to the miners for dog feed. A saltery would be of great assistance to these natives in aiding them to secure a livelihood, and it is recommended that some arrangements be made with the boat delivering the annual school supplies to deliver barrels to the natives and take out the salt fish to the markets.

Quinhagak.—After leaving Goodnews the boat went to Carter Bay, about halfway between Goodnews and Quinhagak, where it was necessary to remain until another tide came in in order to get into the village of Quinhagak. The sea for many miles in front of Quinhagak is full of mud flats, which shallow-draft boats can cross only at high tide. A small stream comes out past the village, which makes a crooked channel that enables the boats to get in, but once in they must remain until the next high tide. On account of the many delays caused by adverse winds we decided not to spend many hours at Quinhagak, and after looking over the wet, unwholesome village and conferring with the

Rev. A. Stecker and his daughter, who had been appointed teacher, we went out with the tide and headed up the Kuskokwim for Bethel.

Bethel.—After traveling about 40 miles to Eek Island the tide ran out, leaving the boat high and dry until the next tide. About midnight the tide again returned, and after traveling until afternoon we arrived at Bethel. The Kuskokwim timber makes its appearance at this place, and the mild climate makes gardening possible. Here we saw some beautiful flower gardens; the hardier vegetables are successfully grown in the mission gardens. We were sorry that the natives did not have gardens.

Dr. Reed's supplies were landed at this place, which will be his headquarters, and arrangements were made for a dispensary. During the evening I talked with several natives, advising them to clean up the loose filth while I went up the river to Akiak, and I requested Mr. Rock, the teacher, to provide rakes for the purpose. On my return from Akiak I was pleased to see that all the natives had complied with my request and had burned the filth.

Akiak.—Akiak is about 40 miles above Bethel and is one of the new schools in this region. There are more evidences of progress in this village for the time the school has been among the natives than there are in any of the villages along the lower river. Conditions are unusually favorable at Akiak, this part of the river affording timber, good soil for gardening, excellent fish, and small game, besides being a reindeer center.

Among the greatest evidences of progress in this village are its gardens. When the school was established, the village contained no gardens; now practically every family has a garden or an interest in a garden plot owned by another native or by the school.

The wreck of the "Wasp."—Early on the morning of the 23d of August we left Akiak on the return trip, and after stopping at Bethel about four hours we continued down the river until the tide left us stranded near Eek Island. When the tide permitted we went on into Carter Bay and anchored alongside the survey steamer *Yukon*. With the high tide we left this bay and headed out to sea with a fairly strong breeze which increased in strength as night came on. About 8 o'clock on the morning of the 25th we thought we sighted land, but the high sea and the mud flats that extend out made it impossible to approach it. We decided to head for Nunivak Island and get behind it for shelter. The storm increased in severity, until, at 6 o'clock, the boat was suffering a good deal from the pounding of the heavy seas, at times shivering all over from the impact. A little after 6 the water began to come into the hold rapidly, and though we began to bail with four buckets, the water gained, and we could not find the leak. We tore out the lining, but still could not find the leak, so we concluded that the schooner had opened up about the keel and decided that our only hope lay in heading her for the mainland, and by hard bailing keep the water down so that the engines would run. After three hours of the hardest work, the water flooded the engines so that they stopped. Realizing that a dory could not live in such a heavy sea, we put all the gasoline tanks and other light material into the hold and fastened down the hatches, hoping that the schooner would keep afloat until the sea would go down. A little after midnight, rising on a big sea, the schooner capsized, and we had to take to the dory, which was unusually light and only 18 feet long. In launching the dory the compass and all our provisions (except a little raw bacon) were lost. Fortunately, in capsizing the schooner did not sink, and realizing that it would float we hastily pulled in behind it and used it for a breakwater for two nights and a day. Finally the storm quieted down somewhat, and realizing that we were constantly being blown farther to sea, we concluded to try to reach land. Accordingly at daylight on the morning of the 27th we left the

shelter of the wreck, and, without compass, headed in the direction where we supposed the land to be. After pulling for two more days and nights we finally reached land, having had no water and nothing to eat but raw bacon. We had been thoroughly drenched all the time. After reaching shore and satisfying our thirst, we began to examine an abandoned igloo when a canoe with three natives appeared and supplied us with some dry fish, seal oil, and a little burnt flour for use in lieu of tea. These natives lived about 15 miles away, but had been unable to reach their village on account of the wind. We took shelter in the abandoned igloo, ate the dry fish and seal oil, and endeavored to dry out by building a fire in the igloo. We spent a very uncomfortable night, due to the intense pain in our feet, which were swollen. Two days were spent at the village in arranging for a skin canoe to take us to Bethel and in getting some food. Six days were consumed in reaching Bethel, the delays being due to head winds and tides. On arriving at Bethel we were in a condition that made travel impossible; so we remained there six days under the care of Dr. Reed. Though Dr. Reed and others urged us to remain longer, we felt it was necessary to hasten on, and reaching the portage, about 100 miles above Bethel, three days and a half were consumed in crossing to Russian Mission on the Yukon. The portage is about 100 miles long and is composed of a series of lakes, sloughs, and land, necessitating poling and carrying the canoe at various places. Leaving Russian Mission the following day, we arrived at St. Michael September 26.

ANNUAL REPORT OF WALTER C. SHIELDS, SUPERINTENDENT OF SCHOOLS IN THE NORTHWESTERN DISTRICT.

Supervision.—The winter tour of inspection included every school in the district, with the exception of the two island schools which can be reached only in the summer. The winter's trip covered about 3,200 miles and took five and a half months. I used dogs for only 310 miles; during the rest of this great journey I was drawn by reindeer.

At each place the work of the teacher was carefully gone over, the natives visited, and in every way the teacher assisted in his work. By reason of his personal acquaintance with the people and the respect in which his position is held by them, the superintendent is usually able to settle any little misunderstandings that have come between the teacher and the natives. The personal relation between the superintendent and the natives, as well as between the superintendent and the teachers is very important. In addition to the conferences at Nome, and the visits during the winter, constant correspondence was carried on with all of the teachers on the mainland.

Teachers.—In my report for last year I expressed my opinion on the value of the services of the teachers and their devotion to the work. With each year my appreciation of these things increases. Without exception, the teachers in this district are devoted to their work, and all of them are doing splendid work. Most of the teachers have specialized in certain directions. I believe that this chance for specialization and development of personality is as powerful in holding teachers in the service as the interest in the Eskimo problem. A teacher who makes no serious mistakes at the start and who is able to interest the people will soon find that he is looked up to and that his authority, as a representative of the bureau, is considerable. I know several teachers who are much attracted by this "authority" and who, I believe, are largely held by it. Such teachers are very apt to overstep the bounds, and then their position among the natives is seriously compromised. I find it advisable to caution teachers against being carried away by this love of authority.

Our teachers are constantly called upon to meet serious emergencies and to perform special services not usually expected of a teacher. When these emergencies involve travel, either by small boats in summer or over the trails in the winter, it often means considerable hardship. Such trips may also involve real personal risk.

I believe the teachers in this district appreciate the treatment afforded them by the bureau and are proud to be in its employ.

It is a source of amazement to many people in Alaska how the bureau is able to secure teachers with such high qualifications and devotion to its interests at such extremely low salaries. In every way, and from the very beginning of the work in Alaska, the bureau's chief asset has been the high class of its teachers.

Schools.—The work is going on along the regular lines, varied at each school by the individual abilities of the teacher. The success of the purely scholastic work is remarkable. I would draw especial attention to the marked improvement in the teaching of English and its use among the children outside of school. The need of a specially prepared primer, and then a specially prepared supplemental reader, is very great. While a complete set of readers would be a good thing, I believe a primer written especially for Eskimos, and then an advanced supplemental reader dealing with Eskimo life in an interesting way, and written by someone really familiar with the life, would be sufficient for the present needs. It is my intention during the next year to do special work along these lines by a series of circular letters to the teachers in my district. We will distribute special lessons prepared by different teachers and will try to secure results.

Industrial work.—I believe it would be well to furnish each school with the materials for a model igloo, and to have one made by the boys at each school as practical industrial work. This would have wonderful results in teaching the boys to make the kind of houses best adapted to their needs and would interest the older people. The industrial instruction given to the girls reaches them in a direct way and has a positive effect on their lives. It is difficult to give an industrial course in the schoolroom for boys who are to do most of their work out of doors. It is easier to teach the girls household arts in the schoolhouse, and this is done with great success. This work consists of cooking, sewing, and general housework. Improvement along these lines is very evident at all the villages.

Gardening.—This part of the work has not been developed to any great extent in this district on account of the climate; also because the natives prefer to reap the harvest of the waters during the summer season than to make any attempt to till the soil. However, Mr. Reese, at Igloo, being favored by the best climate and soil in this district, as well as being specially adapted to the work, has been wonderfully successful, not only in raising vegetables himself, but in getting the natives to do the same. The people raise enough turnips to last through most of the winter. While the gardens at Shungnak, on the upper Kobuk, have not been developed greatly as yet, the prospects are excellent. At most of the schools the children plant flowers or vegetables in boxes which are kept in the schoolroom for study, but in general the future of this branch of industrial work is very limited in this district.

Means of support of the natives.—Trapping is the chief means of income for most of the natives. While most of them can secure a sufficient amount of the food of the country, yet in their advance in civilization they have begun to need the foods of civilization. Instead of bewailing the fact that the Eskimo can not get along on the food of his ancestors we should recognize the fact that we wish to lift him to a higher plane of living. No doubt he was happy and

well a century ago, but progress must come to the Eskimo as well as to the white man. With the benefits of civilization he must assume its responsibilities and face its difficulties. In order to secure the articles that must be purchased he must have articles of trade. Furs are the most valuable thing he can get from the country. While the game laws are often unfitted to the entire breadth of this immense country, yet they err on the safe side as far as the preservation of the game is concerned. The fur-bearing animals of Alaska are extremely valuable and their preservation is important. During the past year the natives in this district have been unusually successful and the furs have brought unusually high prices. With the development of the country and the increase in the number of white trappers the furs of Alaska will rapidly disappear. The white trapper is decidedly less amenable to the laws than the Eskimo and his methods are more businesslike and successful. A white trapper goes into a section with the intention to get all the fur that is in it. The Eskimo usually goes for only a limited time; his methods are erratic and his equipment incomplete. As the white trapper is decidedly the foreigner, the rights of the native to the trapping grounds would seem incontestable.

Fishing is the largest native industry furnished by this part of the country, and it is the one that has been least developed. There is an immense field in building up this industry for the native, but it must be approached very carefully and only after thorough study. There is a considerable field for exploitation in the herring fisheries. A dealer in Nome has agreed to furnish natives of Golovin Bay the salt for salting fish and will pay them a fair price for the prepared fish.

Several traders have attempted to interest the natives in the manufacture of dried walrus meat for sale as dog feed and in the preparation of their hides for shipment to the States. They have also somewhat encouraged the shipment of seal oil in wholesale quantities to other parts of Alaska. I do not believe in encouraging any of these industries, as they would soon put a commercial value on the seal and walrus, which are to the coast Eskimos what the caribou used to be to the inland natives. Such wholesale hunting as would result would undoubtedly mean the rapid extinction of these animals. The seal, if hunted as it is at present, will probably be obtainable for many years, but the hunting of the walrus by whites has already resulted in the marked diminution of these animals. The laws for their protection are quite strict enough, but unfortunately, the walrus being a sea animal, no laws apply to his being killed out on the high seas.

Medical work.—The fact that Congress has made no appropriation for medical relief of the natives is the most discouraging feature of the work and the hardest for us to understand. It should not be necessary to say anything more than that there are thousands of Eskimos in this district who are without the aid of a phyician. While each school is equipped with a good medical outfit, yet at best a teacher is only a layman.

THE REINDEER SERVICE.

Distribution of herds.—Herds are quite numerous in some sections of this district and considerable study of the map is required before a new herd can be located. It would seem that there would be plenty of room for new herds in northern Alaska, as it is well known that the moss grounds are almost unlimited. The difficulty is to locate a herd where it will get summer grazing. This difficulty exists on Golovin Bay and Norton Sound, Salt Lake near Teller, Buckland Bay, and Kotzebue Sound. It is possible that by furnishing salt in sufficient quantities the deer might be kept inland in the summer.

It is my opinion that it will soon be extremely difficult to limit each herd to its own summer grounds. I believe we will soon have to start fall round-

ups" at several of these sections. This is already done at Golovin. Then the deer could be allowed to mix and the herders could relax somewhat during the summer. This round-up would be useful in two other ways, besides separating the deer. Summer herding is hard to control. The herders all wish to catch fish at that time and there is a constant attempt on the part of many of them to shirk duty. I believe we should encourage the herders in their attempts to live on the country independent of their deer. By allowing some of them to leave the herd in the summer and letting the deer mix somewhat the herders would be better satisfied and could secure more fish for winter use. In the second place this round-up would serve to create greater interest in the "technique" of the business, which is much needed. It would bring a lot of the herders together in a friendly rivalry. They would see how each man could handle deer and there would be more of a premium on the successful lasso men. If for a year or two the Government would conduct the long-planned Reindeer Fair in connection with the round-up, it would be a splendid thing.

Traveling with reindeer.—During my tour of inspection last winter it was necessary for me to use dogs for only 310 miles. Next winter I hope to be able to use deer practically the whole trip. This report shows that my average for each day during the whole winter was 28 miles, but during the month of March the average was 34 miles a day. As this average was seriously affected by many short trips it by no means shows what deer can do.

Breeding.—During the past two winters there has been considerable interchange of bulls among the herds, so in many cases new blood has been introduced. However, a still greater interchange is needed. At several of the herds where caribou are within reach I have offered prizes of deer to the herders who succeed in catching live caribou fawns to be put into the herds. In one case the chief herder supplemented this with an offer of an extra deer from his herd. I hope in the future to take up this matter in a more definite manner, and at the proper season to organize parties to catch the caribou fawns. A few young caribou fawns would make a great improvement. I know one sled deer which is part caribou, and he is a beautiful animal.

Sale of female deer.—In the country north of Kotzebue the reindeer men sell many females to other natives. It is a great sign of the success of the industry and the success of the Bureau in training the natives in it, that there are many natives eager to buy female deer, but few herders who are willing to dispose of them.

In this connection, I wish to emphasize the propriety of our recognizing the chief herders and herders as much as possible. These men have the greatest respect for the Government and look to us for direction. Most of them are picked men, who are somewhat educated. Many of them have asked me for copies of the rules governing the reindeer service, and they read them.

An industry for the natives.—In order to assure the success of the reindeer industry it must never be forgotten that the Eskimos are not yet ready to stand alone. To leave the Eskimo reindeer owners to face the commercial development of the industry would assure its ruin as an Eskimo industry; the only way we can assure its continued success among the natives is by maintaining the closest kind of supervision.

The money invested by the Government and the immense amount of human endeavor that has been put into the reindeer industry would all be wasted, as far as its original purpose of helping the natives is concerned, if the industry were allowed to be sacrificed to the greed of the white man, which has always pushed the native to the wall.

SECTION 2.—REPORTS OF TEACHERS.

ANNUAL REPORT OF THE UNITED STATES PUBLIC SCHOOL AT BARROW, IN ARCTIC ALASKA, LATITUDE 71° 25', THE NORTHERNMOST SCHOOL IN THE WORLD.

By D. W. CRAM, Teacher.

Arithmetic.—Arithmetic was given a prominent place in all of the grades. The advanced class received much instruction in practical problems, including the purchase of lumber, the computing of the cost and selling prices of different classes of goods used at Barrow, using the lists in wholesale catalogues, the cost of the different methods of transportation, taking into consideration wharfage and insurance, as well as commission, both for buying and selling. Plans were drawn for houses suitable for this country and their cost figured at local prices, and at prices for lumber purchased on Puget Sound plus freight, commission, wharfage, and insurance, together with lighterage at Barrow. The work of the lower classes was supplemented by computing the cost of sending fox skins to Seattle by mail, as well as figuring the value of bearskins, whalebone, ivory, and such other products as the native ships to the States.

English.—So marked has been the advance in the use of English that throughout the year in every church service the missionary has been able to have responsive readings from the English text of the Bible, in which a large percentage of the congregation joined. As a result of this language work the number of reliable interpreters is continually increasing. One method frequently used in teaching English was to send the class to the blackboard, with the exception of one pupil. The pupil that did not go to the blackboard would turn to a lesson in a first or second reader. From this lesson he would interpret into Eskimo some sentence indicated by the teacher. Those at the board would write the sentence in the English. After the pupil had given a few sentences in Eskimo, he would change places with some member of the class at the blackboard. By the use of this method the class was compelled to translate from the Eskimo into the English, thus giving them more readily a grasp of the English. Often the same method was used in the spelling class.

Hygiene and sanitation.—This year great stress was placed on instruction in hygiene and sanitation in all of the classes of the advanced room. Information was given as to the evil effects of the use of tobacco. The problem of drunkenness hardly enters into the work here, inasmuch as practically the entire native population is composed of total abstainers. However, there is no telling when some of these young lads might go to a place like Nome and there come in contact with the liquor traffic, consequently the evils of intemperance were taught. Tobacco has been used by young and old in the village, including the greater part of the white population. Even children of tender years in the past have had free access to it. Among the most inveterate users are the women, who, when it gets a grip upon them, seem to be greater slaves to the habit than are the men. Since most of these women are nursing mothers there can be no question but that untold harm comes to the children. The bad effects of tobacco upon the human system was not only studied in the schoolroom, but any child found guilty of violating the rules and regulations in this respect was severely brought to account. The work of the schoolroom was supplemented by public addresses to the old people and the young alike, and as a result many of those who have been habitual users of tobacco have given it up.

A. NATIVES OF ATKA, ONE OF THE ALEUTIAN ISLANDS.

B. LANDING SUPPLIES FOR THE COOPERATIVE STORE, ATKA.

A. OATS ON THE SCHOOL FARM, KLUKWAN, SOUTHEASTERN ALASKA.

B. DRYING FISH AT SUMMER CAMP, SOUTHWESTERN ALASKA.

Industrial work.—Among the supplies shipped here last summer was an outfit for a blacksmith shop. This included a twist drill and portable forge—both very much needed in the community. As soon as these were landed, the next problem for consideration was a proper housing of the same. When the boats of the summer were gone we began assembling all of the available material for making a rough building. With this and the lumber left over from the repairs made two years ago and by trading some of the old shingles left over from the building of the schoolhouse years ago to the captain of a ship for common lumber we were able to build a shop 16 by 28. This shop is open to the free use of the community at all times of the year, except Sundays, day or night. From the very day it was finished it has been a veritable beehive of industry. At the times when the people were making their preparations to go whaling it was often in use day and night. Work of all kinds was done in it, from the making of dog chains to the covering of canoes. While the largest canoes of the village are longer than the shop, by opening the large double doors in one end of the building and constructing an addition of snow and canvas it was sufficiently enlarged to accommodate the longest canoe. For the spring whaling alone there must have been nearly a score of canoes covered in this place. The shop was built entirely by volunteer labor, and the men who were engaged on the job were as faithful as if they had been receiving pay for it. The only material that was purchased was 477 feet of dimension lumber.

Sewing.—In the industrial work of the school much emphasis was placed upon sewing, with all of the older girls of the school in the class. The pupils engaged in this work did the best that they have ever done since sewing became a regular feature of the work. Last year most of the class were beginners, consequently what might be termed the "piece system" had to be employed—that is, several girls would each make a part of a garment and then it was put together by one of the older members of the class. This year a step in advance was taken. The older members of the class, under the supervision of the teachers, did most of the cutting, and then an entire garment was placed in the hands of a pupil and she was responsible for its completion. If the work was not done properly, she was compelled to rip it out and do it over again. The result of this method was an output of very good work. Ever since the sewing class was established it has been the custom for the members of it to bring their own cloth and make their own garments, with what assistance could be given them in the school. In the neighborhood of 150 garments were made. These included dresses, waists, snow shirts, shirts, and other garments.

Medical work.—The crying need of this place is a hospital in charge of a competent physician. There may have been some deaths directly due to the lack of a hospital during the past year. It also goes without saying that there are some lives that, without doubt, have been shortened for the lack of such an institution. There have been numerous cases which we were compelled to treat every day, some of them of months' duration. This work had to be done either in the schoolroom, the kitchen, or the living rooms of the teachers, which in every case was decidedly unsatisfactory. While every precaution was taken to avoid infection, at the same time there were certain cases that should not have been cared for in a private home.

Such medical supplies as we had on hand were very soon exhausted, and we had to call upon the schools at Wainwright and Icy Cape for all that they could spare from their stock on hand. We even sent to Kotzebue and had some medicine sent from there on the last mail. Under these conditions the medical work was a great strain upon the nervous vitality of the teachers. A hospital located here would serve the large local population as well as reach

the people of Wainwright and Icy Cape, also a large population as far eastward as the boundary line.

The commercial and industrial situation.—Never in the history of Barrow, so I have been told, certainly never since our residence here, have the natives received such good value for their furs as they have this year. Local traders have for the first time been compelled to compete with the outside prices. As a result of these conditions the price for a single prime white fox skin reached $14 during the winter, while that of a polar-bear skin was from $30 to $55, according to the size of the skin and the condition of the fur. One reason for this is that the native has learned during the past three years that there is a demand for his furs in the States. He has learned that there are agencies through which he can sell his furs at competitive sales. He has also learned that the only expense to him in selling such goods is the nominal commission and the cost of getting the goods to market. He has further learned that he can send such goods by mail. The native has learned that when he is paid for furs by a reliable fur sales agency he is paid with cash and not with merchandise at sky-high prices. However, in this connection, it is only fair to state that with the increase in the prices of fox skins and other furs there has also been a decrease in the price of merchandise locally.

I have been informed from what I consider to be reliable sources that in 1910–11 the natives paid as high as from 10 to 15 white fox skins for a single sack of sugar—100 pounds weight. This year it was a poor fox skin that did not purchase 100 pounds of sugar, while the purchasing power of a good fox skin was 140 pounds of that article of merchandise. This year in the place of paying three fox skins for one sack of flour the native could get, if he wished to trade his furs at Barrow, seven sacks of flour and seven 1-pound cans of baking powder for one fox skin. In other words, the purchasing power of 1 fox skin in 1913 at Barrow was equal to the purchasing power of 28 fox skins in 1910–11 as applied to these commodities.

If these conditions can be maintained for a few years longer, there is no reason why they should not materially affect the prosperity of the people. At the present time this increased prosperity is shown in the increased number of reindeer purchased by natives. Very many of the natives have paid old debts, all of their current expenses, and have invested a small surplus in reindeer. Since February 1, 1913, money has constantly been on deposit here by some full-blood Eskimo for the purchase of reindeer either from the local herds at Barrow or from Wainwright or Icy Cape. These facts foretell the dawn of prosperity for these people.

The reindeer.—As will be seen by the annual statistical report there were more reindeer purchased from the Barrow, Wainwright, and Icy Cape herds by natives at Barrow than ever before in the same length of time. The purchases from these three places amounted to between 80 and 100 reindeer, for which a cash consideration was paid of $25 for each deer. This does not include the deer that were awarded to apprentices. Ninety-six deer were given to employees for their services, as required by the rules and regulations of the department. This makes the grand total of deer transferred about 180 at these two herds. In other words, the deer purchased at Barrow during the year, with those the apprentices received, exceeded the entire first shipment of reindeer into Alaska in 1892, which was 171 deer. This showing should prove conclusively that the natives of Barrow are taking advantage of their opportunities of acquiring an interest in the reindeer herds. These deer were purchased by and awarded to about 85 different Eskimos, 18 of whom had never before owned a single reindeer. There is not the least doubt but that

the natives take a pride in individually owning and looking after a particular herd of deer. It is equally true that they enjoy getting started in the service on a small scale and watching their own deer grow into a larger herd. The reindeer herds here take the place of a savings bank. Let a native get a few dollars in his fingers and in the majority of cases he begins figuring how he can get hold of enough more money to buy a reindeer. Once he has made the investment and the saving habit is acquired he wants to repeat the process and will work toward this end.

The purchase of reindeer during the last two years has affected the whole commercial life of the community. It has inspired almost every full-blood Eskimo with a desire to become an owner. Especially is this true of the young lads, many of whom go to the herds every summer and spend their vacations, there learning about all of the traits and habits of the deer, as well as helping with the herding and other work of the camp.

For the past two years the herders and apprentices, as well as other residents of this section of the country, have had the impoverishing effects of debt preached to them for about 365 days of the year, and it has been one of the hardest lessons that they have had to learn. Indeed, the herders at first seemed to consider that any inquiry into their financial standing was completely out of the province of either the local superintendent or the district superintendent. No greater good along this line has ever been accomplished than that done by Mr. Shields on his visit here in the early part of March. He told the natives publicly and at the herd when we visited it together that in one case a native had been temporarily dispossessed of his deer for the reason that he went in debt and for other reasons. This seemed to make a marked impression upon the herders and apprentices and they talked it over a great deal among themselves. They have all seemed to show a more ready disposition to figure on getting out of debt and staying out than ever before.

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

By Raymond A. Bates and Miss Margaret E. Bates, teachers.

Wainwright, situated near Wainwright Inlet, "three sleeps" south of Barrow and "one sleep" north of Icy Cape, stands on a slightly elevated glacial bluff overlooking the sea. Besides the United States public-school building, the village boasts two frame houses and nine igloos, with an approximate population of 100, or 9 to the dwelling. With the exception of the larger frame house, the dwellings are all single-roomed abodes, dark, crowded, and cheerless.

Mr. Shaver, the preceding teacher, left the village early in August, and it was not until the 19th of November that the new teachers arrived, after an arduous journey by reindeer sled 275 miles from Kivalina. The intervening time, though but three months, had served to let conditions slip back a step toward the old careless ways; the dogs, contrary to previous instructions, were left to run at large, and the demand for soap seemed to have gone on a decline. This indicates what would happen in case the Government were to withdraw the schools. Civilization can not be grafted upon savagery; it must germinate and grow. The Eskimo has force and native ability, and he is not unwilling to be directed. The problem is, of course, to teach him to direct himself.

By the 19th of November the sun had gone on his annual furlough, which in this latitude does not expire until the 20th of January; the mercury on its sub-

zero journey to 60 degrees was then enjoying a stopover at 20 degrees below zero, and the northeast wind had piled up a drift at the corner of the schoolhouse, a monument 20 feet high, dedicated to winter, which has survived even the nightless days of June.. On the level ground there was comparatively little snow.

After Thanksgiving the annual inventory and requisition for supplies for the term beginning in the autumn of 1913 were sent off on the outgoing mail, subsequent mails being too late for the purpose.

The school republic.—To the communistic mind of the Innuit a sort of cousin-like regard for his neighbor seems to have been the nearest approach to a form of government. In Wainwright the opportunity presented itself to begin the experiment of self-government in the school. Before a suitable plan could be formulated mail arrived. It brought a pamphlet entitled "The School Republic," by Wilson L. Gill. This had been sent by Dist. Supt. W. C. Shields, with the suggestion: "Adopt this for use and report your success." It was adopted, not in its entirety, but as much of it as was practicable under the circumstances. The chief barrier, as in any work among the Innuit, was the English language. Self-government had to be employed as a detail in school management, and its use as a method of teaching good citizenship postponed. The organization was called the "Wainwright School Republic." Any pupil able to read in the first reader was eligible for membership; the kindergarteners were considered as wards. The officers were a president, mayor, and judge, each with a term of one month. The president presided over the council at its regular meetings, held each Friday afternoon. At these meetings bills were introduced, discussed, and voted upon, and citizens were elected to perform such duties as became necessary. To become a law a bill after being passed by the council must have the signature of the mayor and be posted conspicuously. Over 30 laws were enacted during the term. A few will give an idea of what they were like: "No citizen shall speak Eskimo in the schoolroom." This law seemed a failure at first, as, instead of speaking English the pupils remained silent or stepped out into the hall when they wished to converse. They soon overcame this reluctance, however, so that even the kindergarteners lisped a bit of English. As it was the special aim of the year's work to teach English this was very gratifying. There were also laws to the effect that no citizen should whisper, look behind in school time, be noisy, rude, or wear his skin parka in the schoolroom. There were also fines for dirty faces and hands or uncombed hair.

The duties which the citizens were elected to perform were sufficiently numerous for each citizen to have a duty. The duty of the fireman was to keep the room comfortable from 8 a. m. till 8 p. m. and to bank the fire for the night. The lamplighter filled, cleaned, and trimmed eight lamps—no small task during the long twilight. There were the floors to be swept, ice to be fetched for drinking purposes, snow to be thawed for washing purposes, the records of attendance, of the game killed by the village hunters, and of the weather to be kept; paper, pencils, and books to be doled out, and various other duties in connection with the school work to be attended to.

The mayor's staff included three police officers, one being truant officer, another the monitor of the kindergartners, and the third the health officer. It was often amusing to see a stubby little 12-year-old police officer bring to school a man-grown truant. The schoolroom was kept open from 9 a. m. till 8 p. m. of every day; when school was not in session the schoolroom served as a sort of club room. One or more of the police officers was always present, and the room was always orderly. Citizens might read, write, sew, play games, or

do whatever they liked, but they must never be idle. "The School Republic" seems to be the problem of school management solving itself. It increases school efficiency, adds enthusiasm, and answers the teacher's question, How shall I do without an assistant?

Cooking.—The cooking room being inadequate for the purpose, the cook-stove was moved into the schoolroom, where the cooking class could do their baking with very little loss of time to their other lessons. All the girls of 7 years and over were divided into four classes, each class having a certain day of the week on which to bake. Each g..l baked light bread once a week, usually six loaves. In this way every home in the village enjoyed light bread at least once a week during the entire school year. Besides bread the girls were taught to make biscuit, cinnamon rolls, cookies, and doughnuts. All the recipes were made as simple as possible and called for only such ingredients as were found in the homes or could be obtained. Fresh seal oil or whale oil was found to be a fair substitute for lard. While rising the bread was protected from becoming chilled over night by being wrapped in furs, and we had good bread in the coldest weather. All the material except salt, yeast cakes, and cinnamon was furnished by the classes and the finished product taken home.

Every effort was made to teach neatness and cleanliness. Table, mixing boards, and dishes were washed carefully and every towel, utensil, and apron had its place. In all, 1,098 loaves of bread, 10 dozen biscuits, 30 dozen doughnuts, 41 dozen cinnamon rolls, and 26 dozen cookies were baked. The class also took charge of and prepared the Thanksgiving and Christmas dinners.

Sewing.—One hour each day was devoted to sewing. Gingham aprons with bibs were the first product of the class, as they were needed by the cooking class. Each girl above the primary grade made a dress for herself. First they took each other's measurements, then each cut her own dress pattern, after which she cut and fitted her dress. An effort was made to correct the leaving of raw seams, a fault common to native sewing. Dresses were made for all the little girls and waists for all the little boys of the primary grade, which the children wore in school and took great pride in keeping neat and clean.

The smaller girls hemmed towels and dishcloths and made holders. Drawings were made of the birds, flowers, and animals found in the Arctic and embroidered in outline stitch with red embroidery cotton on bleached muslin. One old-fashioned patchwork quilt was pieced. In both cooking and sewing, especially in sewing, the girls were quick to learn, did good work, and seemed to enjoy it. Some carried their patterns home and made other dresses after them; others helped the older women to improve their work.

The industrial hour proved a good time to teach English. Names of the materials used, work performed, products of the work and their relations, learned through such object lessons make a lasting impression.

Towels, aprons, and other garments were laundered at the schoolroom throughout the winter and the children came to take considerable pride in keeping at all times neat and clean.

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

By JAMES H. MAGUIRE, teacher.

School.—The term 1912-13 began October 7 with an enrollment of 24, which increased steadily, as native families returned to the village, until December 24, when an enrollment of 61 was recorded. This meant more than desk capacity, and the enrollment of every child of school age in the vicinity, showing undoubted interest in school work. This interest was not entirely confined to children, for 10 adults attended throughout December and January, and three completed the entire term.

In the work of the school special attention was given to practical problems of interest to these people, in which reindeer, dogs, seals, furs, whalebone, and other local products were bought, sold, traded, and divided. Money values of all denominations were thoroughly explained, this being suggested by Otpelle, chief herder, who had been tendered four dimes in some transaction, but before accepting had brought them to the schoolhouse for verification. Distance and time have had little significance among the Eskimos, distance being determined by "sleeps" and time by inclination. Therefore frequent drills were given in these subjects with satisfactory results. Frequent talks were given regarding the evil effects of tobacco and intoxicating liquor, but the younger native knows practically nothing of liquor, and the older ones learned a bitter lesson long ago and strongly urge against anything that smells of liquor.

In all branches of school work the Kivalina native child is quite proficient, considering that school advantages have extended over a period of but 7 years. They read well, and while not always with understanding are most eager for interpretations and explanations, which frequently require patience and ingenuity. Their arithmetic is good, and some are very rapid in mental work. Competition is keen along this line, especially when a blackboard tally is kept.

In writing and map making the natural instinct of imitation is strong. These children also are surprisingly good in spelling and composition. All children above the primer grade kept diaries throughout the term.

School republic.—Acting upon a suggestion by Dist. Supt. W. C. Shields, accompanied with pamphlets by Mr. Wilson L. Gill, the subject of a school democracy was taken up. This was of keen interest to the children, inasmuch as Mr. Shields had established a town council for the village a year before which had proven a decided success. "The School Republic of Kivalina" was adopted as the name of the new organization. Candidates for office were nominated, voted upon, and duly elected as follows: President, vice president, judge, two peace officers, two health officers, and two commissioners of works, the term of office extending over a period of 60 days.

This organization did not at any time interfere with school work, its deliberations occupying time outside of school hours, and the innovation was of material assistance to the teacher. The natural inclination of these natives is to indulge in friendly intercourse and in much healthy outdoor sport; therefore the peace officers and judge found very little to do. The health officers looked after the general cleanliness of all children; their activity resulted in a clean and absolutely vermin-free attendance. These officers promptly took new pupils into the bathroom, where hair was combed and rigidly inspected, faces and hands washed, and if clothing was below the standard of cleanliness the child was given soap and sent home to have clothes washed or changed. The commissioners of works came in for the hard labor, caring for the fires, carrying coal, removing ashes, sweeping, dusting, and procuring ice and snow for

the bath tank; it was also their duty to maintain a neat and orderly workshop; they could call upon others for assistance, but they understood that they were responsible for conditions, and they did their work, and did it well.

A special feature of Kivalina school life is the bathtub. The new stove and bathtub were set up and connected before school opened. Friday afternoons after school hours were given over to the girls, and Saturdays to the boys; it was no uncommon sight to see four boys in the tub at one time; they never seemed to get enough of the good warm water, and on various occasions took two baths the same day. Adults took advantage of the tub; practically every white man who traveled this way was invited to enjoy the luxury of a bath, and all were emphatic in their appreciation. Four hundred and ninety-two school baths were recorded for the term, approximately 20 baths per child, based on an average attendance of 25, and not once was bathing compulsory.

Domestic science.—The older girls are all proficient in the use of the sewing machine, but instructions were given in its use and care to the smaller children. The sewing machine was also used very frequently by boys. Towels for each child were made, also aprons, parkas, skirts, and shirts. Instruction in darning and mending was given to both boys and girls. Each new baby was given two new dresses, for, unlike white people, these mothers make no preparation for the little stranger before he arrives.

Three classes were instructed in cooking each week, as long as flour was available. Three hundred and thirty-seven loaves of bread were baked, also quantities of rolls, biscuits, and doughnuts. The Thanksgiving and Christmas feasts were prepared and served by the cooking class girls in the schoolroom. "Sourdough" biscuits and hot cakes are made in every igloo, yeast and soda being preferred to baking powder and being less expensive. The younger girls make bread at home, but if more flour had been available the output of light bread would have been doubled.

Instruction in laundering was given three days each week, at which times the bathroom, portable tubs, and washboards were available and necessary soap furnished.

Shopwork.—Very little was accomplished in shopwork on account of a scarcity of lumber, but the boys had access to the shop daily and made sleds, chests, benches, and tables, also a number of chairs. The natives use tools understandingly, but are inclined to be careless and hurry away when a job is completed, regardless of the condition in which they leave shop, tools, or bench. The men of the village made many sleds, repaired others, and find the shop of great benefit.

Home visits.—The proximity of the native homes to the school building made visiting very easy, and the 12 homes were inspected weekly. Ventilators were occasionally found stuffed and the air bad, but the majority of homes are kept clean and orderly, and the floors are washed every Saturday.

Disposal of garbage.—After the snow disappeared the spring clean-up was made. Rakes, shovels, and wheelbarrow were busy. The accumulation of winter filth was raked into piles and burned or buried, the grounds of the absent villagers being cared for by those who remained behind, directed by a councilman.

Health.—Kivalina is healthy and admirably located, even though medical assistance was rendered 574 times. Probably one-fourth of that service was given to visitors who stopped at this village when north or southbound. The Noatak summer village is temporarily located 16 miles below us, and the Point Hope camp 20 miles above. People from both camps come or send to this place for medicines. During the winter there was no illness more serious

than severe colds and stomach troubles among the small children. In October a woman named Kopak received a bad gunshot wound through the left leg. She was 12 hours or more without attention in her hut, which is perhaps 15 miles from this place, nevertheless she stood the trip well and responded to treatment so readily that in 11 weeks she was able to travel again. This case interested our boys and girls very much, and during the noon hour when the leg was dressed the older ones took turns in assisting. Sterilizing and bandaging were explained, also the process of granulation, which in this case was astonishingly rapid.

Agriculture.—Heretofore this place has not been looked upon as a garden spot, but the abundance of wild vegetation and great variety of flowers encouraged an attempt. A hotbed was made, using two old windows for covers. Radishes, onions, lettuce, parsley, and turnips were planted. The radishes, lettuce, and turnips came up in 4 days, the onions in 10, and the parsley in 17. The result of this attempt is of interest, and it is anticipated that gardening even at this point will be in a measure successful.

Water supply.—Before the frost left the ground a well was sunk through frozen ground to the depth of 6 feet 4 inches. The water in this well is excellent, being ice-cold and sweet. The natives were so pleased with this well that one was put down for them at the west end of the village with equally good success.

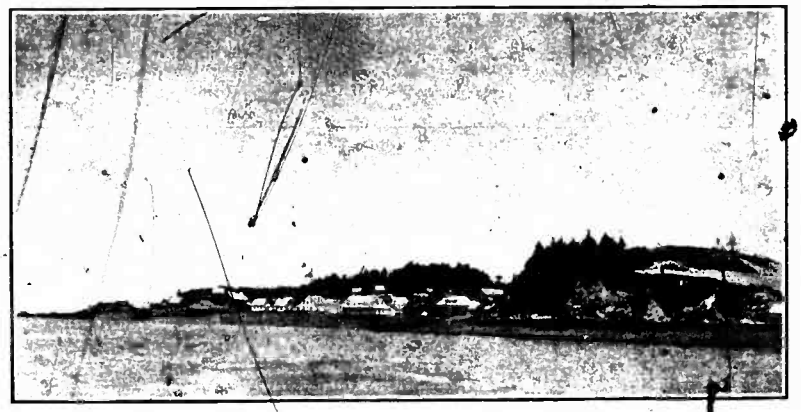
Town council.—An entirely new town council was elected April 2, composed of three of the old men and two younger men who can read and write and speak English, thus making this council independent of interpreters. The new council has a firmer grasp on things than the retired body, and its members are open to suggestions. The question of firewood is a serious one here; the supply collected last summer was insufficient for half the winter. It was not an unusual sight to see women and children searching for wood during some of the very worst storms, and with poor success. Between this place and Point Hope, probably 20 miles from here, the beach is piled high with driftwood, which can be brought here with very little effort. The new council has agreed to raft down this driftwood and make a municipal woodpile which will be sufficient to last throughout the winter. A similar proposition was laid before the council concerning a supply of fish. The natives having homes along the rivers have an abundance of fresh fish all winter, while the coast native depends upon the riverman's liberality or eats old fish. The council has promised that Kivalina people will have as good fish as the river people and to that end will establish fish trapping along the rivers.

Reindeer.—We are experimenting with a head stall, or a sort of bridle with reins attached to the side of the head, so that the animal's head can be turned from the nose and not from the neck, an arrangement which we think will prove effective and not interfere with the animal's breathing.

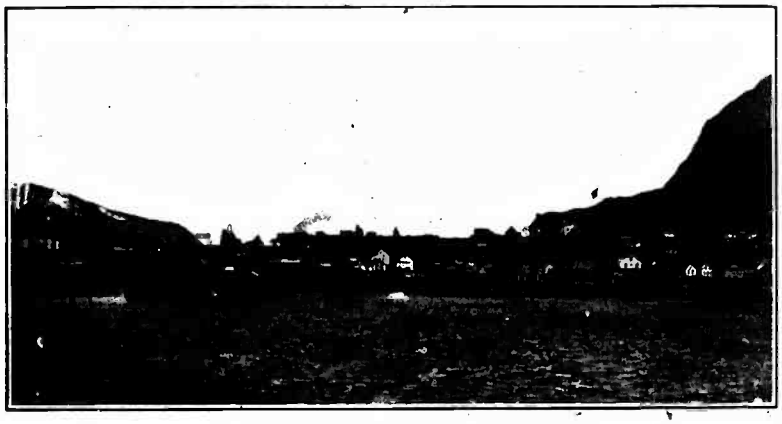
Eventually Kivalina will be a great reindeer center, just as in former years it was a great caribou country. It is only a question of a very few years until every adult Eskimo will have his own private stock and the problem of support will be solved.

Notes.—In February we were visited by District Superintendent Shields and Dr. W. L. Barbour. These gentlemen inspected all Government property and native houses and talked with and advised the people. A visit was also made to the reindeer camp, where the herd was inspected and the people advised on matters of health, business, and general welfare. In March Mr. Shields spent three days with us on his return from Barrow, again visiting the reindeer camp to confer with the chief herders.

A. KLUKWAN, SOUTHEASTERN ALASKA



B. SELDOVIA, SOUTHWESTERN ALASKA



A. HAINES, SOUTHEASTERN ALASKA.

B. NATIVE BAND, KAKE VILLAGE, SOUTHEASTERN ALASKA.

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

By FRANK B. SNOWDEN, teacher.

General conditions.—The natives were very successful in fishing during the summer, and they also swelled their caches to overflowing during the late fall. As winter drew nearer, game seemed to multiply, and at no time during the whole winter were there any signs of a dearth of food. This has certainly been one of the most prosperous years the natives have ever enjoyed; they caught red and white fox, wolverine, and caribou in abundance, and as fur has increased in value they look forward to having more money this summer than they have had for several years. That the natives are waking up to the situation is manifested in the orders they sent to the States this spring for supplies. They are storing these in the event that next winter does not bring the success this one did.

Formerly the natives held their services in the school building; they had a foundation for a church and I soon persuaded them that they ought to complete the building. They hesitated at first, but finally all united in the work and soon we had a nice church building, lined with roofing paper, decorated with flags and pictures, and with a large platform for the choir. This building was used all winter and will be used henceforth, as it is very roomy, and is in a good location for all village affairs.

Officers were appointed for the self-government of this village, thus enabling them to learn from practical experience what it means to be responsible for things. There were five trustees to whom were referred practically every controversy or friction. These trustees settled all disputes, thus taking many a load off the teacher's hands. Each year new officers will be elected in order to teach as many of them as possible the responsibility of holding office. The peace officer had nothing to do, as there was not a drop of liquor in the village the whole winter, nor was there any desire for any. I fully believe should any liquor have appeared the natives would have turned their backs on it, as well as on its possessor. In this village there are very few smokers. We had several socials during the winter in which all participated heartily, held sometimes at the schoolhouse and sometimes at various native houses. Generally we would serve them with refreshments, after which some interesting games and contests were enjoyed.

The natives of this village have revolutionized the old method of living. Almost every family lives in a modern house, with plenty of light and with a good ventilator. My efforts in this direction have been amply repaid. We had less sickness here last winter than at any other village. Almost every house in the village was improved in some way during the early fall. These improvements were praised by Supt. Shields when he visited us during the winter, and no doubt the encouragement which he so freely gave will cause further improvement of village conditions. We received a visit from Dr. Barbour, of Kotzebue, and the natives all felt that the Government was taking a keen interest in their welfare in placing a doctor within visiting distance of Noatak.

School work.—We believe that much has been accomplished in school this term, especially in sewing and cooking. Out of the material supplied we made 7 dresses and 12 shirts, which were furnished to the needy, and which they certainly appreciated. I placed tables and a cook stove in the workshop for the use of those desiring to make bread, and the workshop, as well as our own kitchen, has been much used. Owing to the fact that the school building is too small, we have to share almost every part of the residence with the natives. We receive many callers.

The natives have tried to live in a sanitary manner this winter and cleanliness is evident everywhere. A majority of them scrub their floors once a week and do their washing regularly. We had to accommodate them with baths in the workshop of the school.

The natives take a great interest in music; the organ furnished us last year, the cornet, mandolin, and guitar are all in constant use. Crowds will gather to hear the music and everyone joins in the singing. A few of the girls can play fairly well on the organ.

Medical work.—Almost everyone here has been benefited by the contents of the medicine chest of this school. We have not had to call a doctor once this winter and have had little sickness. There have been only three deaths since our arrival; one was due to hereditary deformity, another to a lingering case of tuberculosis, and the third was a child that died from muscular spasms caused by the cutting of teeth. This winter I gave the reindeer boys for the first time a supply of such medical supplies as cough sirup, quinine, cathartics, bandages, cotton, and balsam. Whenever a native was going on a long journey I had him come in just before leaving, and I gave him some bandages and antiseptics for use in case of accident. All learn how to use a bandage and how to keep a wound free from infection. Everyone is admitted to the lectures on practical medical and surgical relief, which I give every Thursday night. I illustrate these lectures with pictures, and I also tie up imaginary wounds with bandages of all shapes in order that the natives may learn how to take care of themselves. At these lectures I also show them, through pictures, the effect of narcotics on the human system and how the tuberculosis germ is spread through carelessness. They are taught to destroy all sputum whatsoever and to destroy all refuse around those that show symptoms of the disease. I believe these lectures have been the means of bringing about better health conditions in the village. I earnestly recommend all teachers to try this system.

Reindeer.—The reindeer industry is assuredly growing, and all indications point to reindeer herding as the future occupation of the Eskimo. I never saw people take so much interest in anything as these people do in the reindeer. I have visited the camp several times this year and have always found things in good condition, though our chief herder was ill for some time, and finally died this spring. Nevertheless, with the aid of the temporary chief herder whom I appointed things have progressed nicely. The deer are all in good condition in this herd; the herd contains quite a number of well-trained sled deer.

Even the younger boys take a deep interest in the reindeer, and they all aim to become herders.

A native who owns a few deer commands the respect of the population. There have been several sales this winter, and we have added several new names to our list of owners of reindeer. As this winter has been such a successful one for the natives, I anticipate a larger list of owners next year.

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

By ROBERT SAMMS, teacher.

School work.—The work has been carried on on the plan of a primary school in the States, with sufficient variation to meet the different conditions of Eskimo life. Special effort has been made to have the natives use the English language in conversation; they learn reading, writing, spelling, and arithmetic without difficulty, but lack of confidence in themselves makes progress in

speaking much slower. A few years will remedy this, however, and as the older generation passes away English will become the language of the home.

The natives are deeply interested in physiology and hygiene; they like geography, and show some interest in history if put in the form of story or biography. A few have made good progress in all their studies.

All Eskimos love music. Six have taken lessons regularly on the organ. Three are able to play at public gatherings, and one boy has a small organ of his own. One evening each week has been given to training in vocal music. This was open for all, and was much appreciated. A native choir supplies the music for Sunday gatherings. For about three months in midwinter we gave one evening a week to the study of good literature; attendance was voluntary and confined to those who could read. The interest was good.

Receptions were given during the winter for the young people and children. These social evenings seem to have a refining influence upon them and help to cultivate a feeling of attachment for the work.

Industrial work.—In the sewing department the machine sent last summer is much appreciated. The women of the village and some from a distance come to receive instruction in sewing, and they make their garments on the machine. A good many shirts were made for the men. The machine has also been used by the young men in making boat sails, which formerly were hand sewed by the women.

For instruction in cooking, the little kitchen was pressed into service; it was also used as a dispensary, reception, and dining room. Eight school girls and five boys have been taught to make yeast bread. Thirty-five of the older women have also been instructed, using the kitchen five days in the week. These pupils range from 10 to 60 years of age. Where there are suitable stoves instruction is given in the homes; 1,280 loaves were baked in the schoolroom kitchen. All the flour was furnished by the natives. Cooking in the homes is carried on in a much more hygienic manner than in former years.

Health.—Caring for the sick has included medical aid, teaching the natives how to prepare food for those who were ill, ventilating the houses, and fumigating the bedding and clothes of those who had infectious diseases. A committee was organized to assist in this work. The response was hearty and the work conscientiously performed. This committee put in ventilators where needed, brought wood for fuel, oil for light, fixed beds that the sick might be more comfortable, supplied food where sickness prevented the father from providing, and watched by the bedside through the long winter nights.

Weak stomachs are common. Care in cooking and eating will in time do much to remedy this ailment. There is also much eye trouble, a good deal of which can be relieved by the use of proper glasses, better light, and more attention to cleanliness. The use of spoiled fish is still quite common and is responsible for some sickness.

Sanitation.—This village has fair natural drainage. A few small ditches suffice to drain the low places. A few places should be filled in. The water supply is taken from the river, which is wide and deep with some current. The natives do not stop here long in the summer, and the river is frozen over during the winter, so there is small chance of sickness resulting from the use of this water. All refuse not buried is taken away by the ice in the spring. Some toilets of a temporary character are constructed each winter. The ground around each house is cleared up before winter sets in.

Industrial life.—The natives are dependent for their support upon fishing and trapping. The fish catch last fall was only about half as much as usual, owing to unfavorable weather conditions. Trapping was fair. Fewer pelts were secured than last year, but this was offset by higher prices. There are three

stores kept by natives. An increasing number obtain a part of their livelihood from the reindeer industry.

Social life.—As the families become segregated, each owning its own house, there is a perceptible improvement in outward cleanliness and in morals. Petty jealousies and family feuds disappear and cooperation comes instead. The village life here has been marked by kindness, patience, and a sincere effort on the part of the people to live happily together and work for the common good. They often ask for information about the laws governing the country and are free to point out wherein they think changes should be made. This is especially true with the game laws, which are difficult to adjust so as to suit the conditions here on account of the variations in the seasons and weather conditions and the absolute necessity to secure food by hunting. They still recognize their chief, who is now advanced in years, but their affairs are adjusted by a body of men chosen by themselves. This plan seems to work well. When they are scattered in hunting each of these men is expected to preside in the locality where he chooses to hunt and keep careful oversight of the health, morals, and needs of those in his district.

The intermarriage of families closely related has had the effect of lowering the vitality and intellectual life of these people. The rate of infant mortality is very high, some families having lost all their children. One woman informed us she had lost 12 children. A few of the families are childless. There are some cases of epilepsy and idiocy; the intellectual status of several natives is so low as to make them semidependent. The scarcity of girls causes some of the men to seek wives in other localities. All families in this neighborhood are related.

No intoxicating drink and but little tobacco is used. The cigarette, once so common, is now kept out of sight and but seldom indulged in.

Reindeer.—This section is noted for its fine furs, due in part to the exposed condition of the country, for trees are scarce and the mountains distant. Since the fur-bearing animals are steadily decreasing it would seem that for future support the native will be largely dependent on the development of the reindeer industry.

The weather conditions the past year have been favorable. The sales of female deer among the natives have been numerous. But little meat has been sold, as there is no market for it in this part of the country. Good skins for use in making clothing find ready sale in the village.

The herders, apprentices, and their families number 23. Owners and their families number 76, making a total of 99 persons here who are connected directly with the reindeer business. The reindeer herd serves the purpose of a savings bank for the native. Here he can invest his money and know it is safe, while the increase amounts to a good rate of interest. This form of investment is now very popular here.

Some effort has been put forth the past winter to create a better spirit among the natives living near the reindeer herd. A reception was given to the herders, apprentices, and their families at the schoolhouse. This was something new and was greatly enjoyed. A supper was served in our living rooms, the walls of which were decorated with drawings of reindeer and sleds made by the boys in school. Two "igloos" were built for shelter at a temporary camp, and five log cabins constructed at the new winter quarters. Special effort has been made to have each family live in a separate house. All cabins are clean, roomy, and warm.

The camp has been visited by most of the village people and the demand for deer is greater than the supply. We have a waiting list of boys who wish to become apprentices in the reindeer industry.

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

By HARRY G. SELLER and MRS. KATHRYN D. SELLER, teachers.

Agriculture.—During the months of April and May the whole community devoted a great deal of time to agriculture. We made over the community garden in the village, sowing carrots turnips, lettuce, radishes, etc. As last year we did not have success with our garden in the village, we decided this year to try some other locations; so the teachers with 14 men plowed a tract of about 2½ acres, about 7 miles from the village, and planted it with potatoes and turnips. The local trader contributed one box of potatoes and a half pound of turnip seed for this garden. The natives have six other gardens in different parts of the island, besides the two mentioned above. As the school now has a good large boat, kindly given by the Revenue Cutter Service, we are able to go back and forth to the different gardens without trouble. The reason for the scattered gardens is the fact that this island is all of volcanic formation, and it is only in spots we can find land fit for planting. All the able-bodied men in the village worked hard and faithfully in the work.

Carpentry.—All the men and older boys can use tools. During the year we built a one-story building (14 by 16) shingled on the outside, which has been put to good use as an industrial shop for the school, also a canvas dory. A great deal of improvement has been made in the interior of buildings in the way of lining same with boards, also making shelves, bedstands, tables, window frames, doors, chairs, etc. The lumber used for the erection of the school industrial shop was supplied by the Bureau of Education.

Sewing.—Instruction in sewing has been given in schoolrooms, living rooms, and in homes. Since receiving a sewing machine for the school last year, the work along this line has been greatly extended. Besides our machine two other hand machines were brought to the village last fall. Now all of the older girls and women of the village know how to use the machines. Sewing classes were held on Wednesday and Friday afternoons, and the use of the machine was free to anyone on Saturdays. In the regular classes the following work was completed: Fifteen children's dresses, 20 waists, 10 shirts, 7 boys' suits, 10 aprons, and about 12 pieces of underwear. There were days for darning, mending, and crocheting, in which all took great interest; we crocheted 25 school caps, these doing away with the wearing of handkerchiefs among the younger generation. All of the material for this work was purchased at the local store by the natives, with the exception of half a bolt of outing flannel, which the school supplied. The use of patterns was greatly appreciated by women, who cut out a newspaper pattern for each article made.

Cooking.—We emphasized cleanliness in the preparation of food. All the women now make good bread, which is often baked at the schoolhouse during the winter. Biscuits, griddle cakes, oatmeal, rice, doughnuts, pies, and plain cookies were also made, the women bringing their own ingredients. The cooking of fish and seal meat received special attention. We should like to suggest that a full-sized cooking range be sent, as the one in present use is breaking down under the strain.

Washing clothes.—Washing days in Atka have become regular, and we never have to reprimand anyone for negligence in this respect. The floors and windows of homes also receive a good washing once a week. As for bathing, that is a routine work for homes on Saturdays. Ironing and starching of clothes were also taught.

Housekeeping.—The general condition and appearance of the interior of huts are good considering the construction. Within the next year we hope to abolish some of the older barabaras and erect small frame houses in place of them. The women show that they appreciate clean homes, and, if given the means to keep them clean, would, no doubt, prove better housekeepers.

Weaving.—In the last two years weaving has taken its place in the instruction of the younger generation. Classes in weaving meet twice a week.

Occupations.—Trapping, fishing, and basket weaving are the three occupations of the natives. During the winter months the men trap foxes and sell them at the local store. The catch for the season of 1912–13 was as follows:

Kind.	Number.	Average price received.	Kind.	Number.	Average price received.
Black	3	$50 00	Cross	13	$5.00
Silver gray	20	18 00	Red	52	2.75
Blue	77	8.00	White	1	1.50

The teachers also sent to Seattle nine blue foxes to be sold for the natives through the Bureau of Education. Fifty pieces of grass weaving were sold, averaging $4.13 each. One hundred and thirty-seven dollars and ten cents was earned for labor during the year. Game and fish sold by natives in the village brought $12.25. The total earnings of the whole community for the year was $1,809.85, which, if divided equally among the total population of 74, gives them $24.45 per capita. The cost of living is 100 per cent higher than at Seattle.

Fishing.—The fish caught in this vicinity are cod, halibut, and salmon. Salmon is very scarce. Cod is plentiful during the summer but very scarce during the winter. Halibut is caught only during the summer months.

Ptarmigan, ducks, and geese are shot occasionally during the winter. Owing to the continuous rains in this location the natives have a hard time drying fish for winter use. It is most discouraging to have the fish rot on their hands before it is dried. Salt fish is put up during the summer months. Hair seal and sea lion are caught on the western islands during the early part of the year. On account of the great distance they have to go the natives can not bring much of the meat back to the village, as they have only their small bidarkies to travel in. They consider it doing well to bring back all the skins.

Health.—The general health of the native improves each year. It was most gratifying to the teachers when Dr. Carter, of the U. S. S. *Unalga*, remarked this spring that we had the healthiest looking natives west of Kodiak. An epidemic of grip and bronchitis broke out in the village during the months of May and June. The whole community was down with it, including the teachers and their children. After two weeks of constant treatment we got it under control. Credit is due to Dr. Carter, of the U. S. S. *Unalga*, for the medical assistance rendered. We should like to state that it is due to the instructions given teachers by the doctors of the cutters that we are able to treat and care for our people.

Sanitation.—The sanitary conditions have greatly improved since last year. This spring all men in the community, including the local white trader and teacher, turned and worked out our local road tax. We recovered the roads with clean gravel, cleaned out all the ditches, and had a general clean-up all through the village. Owing to a very high tide during the winter, the embankment in front of the schoolhouse was washed out. The men, accompanied by

the teacher, went to the west side of the island and packed driftwood on their backs, a matter of 5 miles, to use in repairing the damage. For all this work, which lasted for a period of four weeks, the men did not expect or receive any remuneration except the meat previously mentioned. They are always ready to make any improvement the teachers may suggest with reference to the school or village.

Morals.—The morals of the natives are good. In the past the drinking of a local liquor had a bad effect. In the last two years there has not been any beeva made or drunk on this island. The moral conditions of this village are as nearly perfect as one could expect in a community of natives.

With the establishment of our own native cooperative store we intend to inaugurate a school republic and local government for the village in general.

In closing we should like to state the natives of Atka fully appreciate the benefits of their school and the assistance rendered by the Government to help them to rise to a position of self-support and self-respect. These natives are now beginning to show an interest in the Government of their country. This spring they were just as eager to learn who was the new President of the United States as the teachers themselves. Only three short years ago their only conception of government was that of a monarch of a foreign country. To-day they honor and respect the Stars and Stripes, and look to the Government for protection. The Government will be amply repaid for erecting the school at Atka by the self-respecting citizens it is making of the natives of Atka Island.

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

By P. H. NASH, teacher.

School work.—The morning sessions were devoted to reading, blackboard writing, arithmetic, and number work, while the afternoon sessions were given up to the industrial work, weaving, sewing, and basket making, varied with penmanship and drawing.

Owing to the fact that most of the children do not hear English spoken at home the pronunciation is very difficult for them, so considerable stress was laid upon reading and conversational exercises, and, considering the circumstances, they are doing remarkably well. All the work given to them in arithmetic and numbers is, of course, concrete and is related to their daily experiences. While slow at this work the result has been satisfactory. The children have always shown great interest in the drawing and sewing, while basket making and weaving being new to them this year they have taken more interest in that than in the other part of the industrial work.

School republic.—We organized a simple form of self-government in the school. The school room was called a city, each desk represented a home, and the aisles were the streets. The children elected their mayor, whose duty it was to give directions to the three councilmen, who were also chosen by the children. Each councilman had a separate duty to perform. One had charge of the homes and streets in the school city; he selected two deputies, a boy and a girl, who inspected the children's head, necks, ears, and clothing. The second councilman had charge of the school grounds; his assistants were boys, whose duty it was to keep the grounds clean around the schoolhouse. In winter they cleared away the snow and kept the walks open; in summer they removed all litter from the grounds. The third councilman acted as a sheriff; his duties were to

raise the flag and see that there was no smoking or chewing of tobacco on the school premises, also to see that there was no swearing or disorderly conduct. The children like this new organization very much indeed.

Sanitary work.—This year more time was devoted to sanitary work. Every other afternoon a different part of the village was visited; by so doing I could make the rounds of the whole village two to three times a week, instructing and urging the people to ventilate their houses, scrub their floors, collect the garbage in boxes or barrels, burn the rubbish, and throw the tin cans where the tide would carry them away. Most of the natives took kindly to these suggestions. Practically all washed their clothes and scrubbed their floors at least once a week, when it was not too cold. When spring set in most of them cleaned up around their houses and burned the rubbish; some dug little ditches as drains around their cabins. In a little village like this, where there are no sanitary regulations, and where cattle, hogs, dogs, and chickens run at will over the town, the sanitary problem is a very difficult one.

Health.—There has been considerable sickness in the village. Most of it consisted of bad colds, coughs, toothache, earache, sore throat, and swollen glands. There are several cases of trachoma in the village; two of these were acute, and had it not been for the fact that Dr. Schaleben was able to spend some time here during the winter treating them, the result might have been loss of eyesight. All these cases have received daily treatment ever since, according to the doctor's instructions. In fact, we make it a point to administer all medicines ourselves, so far as possible, either in the schoolhouse or at their homes; the native can hardly be relied upon to take medicines as instructed. We have had only three deaths this year. Two were very old men and one a middle-age woman. All died of tuberculosis.

General conditions.—The natives are very law-abiding. If let alone by the whites there would be very little, if any, drinking among them. The moral condition is in general very good.

During the winter there is nothing much for the natives to do here, as hunting and trapping have practically ceased in this vicinity. In the summer the natives work at the canneries and on the boats that run up and down Cook Inlet, while a great many are employed at the new coal mine just opened at Port Graham.

In closing, I wish to say that considering the primitiveness and childlike nature of the natives, the ignorance and indifference of many parents as to the value of an education for their children; the poverty of the people, together with their lack of foresight to provide for the future; the lack of laws to compel the children to attend the schools and to enforce sanitary regulations, the bad influence exerted on the weak, susceptible natives by a certain low, degraded, unscrupulous, and hungry class of whites, always found around native villages, the vastness of the rugged territory over which the native races are sprinkled, its inhospitable climate, its inadequate and costly means of transportation—considering all these difficulties it is indeed wonderful what the Bureau of Education is accomplishing for the natives of Alaska.

ANNUAL REPORT OF THE UNITED STATES PUBLIC SCHOOL AT SITKA.

By Miss Cassia Patton and Miss Jeannette H. Wright, teachers.

Before the formal opening of the school last summer, and through the autumn, we arranged lessons for the native women and girls in the preparation and preservation for winter use of the abundant wild berry harvest of this

A. CLINIC IN SCHOOL ROOM.

This illustrates the difficulties under which physicians and nurses work and emphasizes the urgent need for hospital facilities.

B. CLEANING ULCERS AND WOUNDS.

ONE OF THE PHYSICIANS ON A TOUR OF INSPECTION IN A NATIVE VILLAGE.

country. The natives had been accustomed to put up the berries in oil. Not many of them do so since they have acquired a taste for the canned fruits they can get in the stores. Only a few, however, understand the methods of home canning; consequently they picked only what they desired fresh for immediate use. We had the women bring the berries to the schoolhouse and taught them in groups; they furnished their own jars and sugar. They seemed much pleased as they took home the product of their industry. Some of these jams and jellies, we heard, proved too tempting to be put away to supply the winter table.

School work.—Throughout the year much attention has been given to problems in arithmetic arising out of their daily experiences, such as necessary calculations in connection with the handling of their furs, fish, and logs. Much interest and enthusiasm was shown. The men in the evening class were also exceedingly interested in this work in arithmetic. Some said, "That is just what we need." These evening classes were begun in January and continued through April. They consisted largely in thorough drill in the mastery of the "three Rs."

Laundry and bath.—The laundry and bath have been in constant use. On Mondays, Tuesdays, and Wednesdays the women and girls have had the use of the laundry for washing and ironing. Very few used to iron their clothes, but since Miss Patton engaged a laundress to come and give them special lessons in ironing quite a number take pride in their newly acquired accomplishment. On Thursdays the bath was used by the men, on Fridays by the women, and on Saturdays by the children—by the girls in the morning and by the boys in the afternoon. A large number of the children have formed regular bathing habits. After persistently repeated reminders they have acquired the habit of bringing with them their own towels, also a change of clothing.

Treatment of disease.—There has been little illness this year in the community. There have been a few light cases of measles. There was one reported case of diphtheria that came here from another village. The doctor had the case quarantined when brought here as a precautionary measure, but decided later it had not really been diphtheria. The natives have constantly come to us for relief for minor ailments. This spring each day at the schoolhouse we regularly lined up the anæmic children and gave them a tonic. One little girl of 11 is wasting away with tuberculosis. She likes to come to school, and we let her do so because we think she is better off here where our rooms are ventilated. There is no danger of contagion, because a hard and fast rule of this school has long been to use papers for the sputum which are burned in the stove.

Village sanitation.—When the snows were melted this spring we suggested to some natives, whose example we knew would have influence with others, that it was a good time to get the cleaning done around their houses. They accepted the suggestion and achieved excellent results. Sitka may now well be proud of the village streets. It is a pleasure to pass by and note their cleanliness and order.

Recommendation.—We would recommend that as new schools are built and old ones remodeled, open-air schoolrooms be provided, since a large percentage of the death rate among the natives is due to tuberculosis.

SECTION 8.—REPORTS ON HEALTH CONDITIONS.

REPORT ON HEALTH CONDITIONS IN THE ESKIMO VILLAGES ON THE ARCTIC COAST.

By EMIL KRULISH, passed assistant surgeon, United States Public-Health Service.

I accompanied the revenue cutter *Bear* on her annual Arctic cruise and made a general inspection of the natives and conditions in the Eskimo villages along the coast. Owing to the brevity of the stops at each village, time did not permit me to personally examine each and every native; I usually had time to examine only those who presented themselves for treatment, and thus many cases of incipient tuberculosis and other minor diseases presumably escaped my attention. The settlements visited were Kotzebue, Kivalina, Point Hope, Icy Cape, Wainwright, and Barrow.

Settlements.—The settlements are necessarily located on the coast, for the natives derive the greater portion of their livelihood from the sea. The sanitary conditions of the premises vary in the different communities. These conditions, though unsightly and apparently insanitary, are, however, not the direct cause of disease in Alaska. It is in the crowded, overheated, unventilated, and insanitary homes that the principal danger of contagion exists, and where diseases are usually contracted.

In those villages in which the premises are clean, the conditions within the homes are more sanitary and the people healthier; thus I found the natives at Point Hope to be in the best condition physically, while at Barrow the number diseased was the greatest.

Natives.—The Eskimos along the Arctic coast usually have an abundant supply of native foods and furs at their disposal, and therefore are perhaps in better circumstances than other natives of Alaska. While their homes and mode of living are below the standard of the whites, they are far ahead of the Eskimos of the Siberian coast.

Dwellings.—The Arctic coast is a timberless country; the natives therefore depend on driftwood to a large extent for their fuel supply and building material. Coal is plentiful in this section of Alaska, but the mines are inconveniently situated to the villages, and the natives are not prepared at present to utilize this fuel in their homes. Seal oil lamps are also used to some extent for heating purposes. The igloos are usually small in size, which necessarily results in overcrowding, and every crevice which might admit air is carefully sealed during the long, cold winter months in order to maintain a comfortable temperature within.

Disposal of refuse.—With two exceptions, the premises in the villages were fairly clean and sanitary. During the summer garbage and refuse is thrown into the sea, while in winter it accumulates near the igloos and is disposed of in the spring. Under the direction of the teacher a general "clean-up" of the village occurs. The thoroughness of this procedure is in direct proportion to the energy and influence of the teachers in the respective villages. Kivalina was the only settlement at which I saw privies. Urine is preserved in vessels and is used in tanning skins; its use as a substitute for soap is being discontinued. The dead are buried; formerly the bodies were laid to rest upon elevated platforms.

Foods.—The principal food supply of the northern section of the coast is the whale, seal, and walrus; fish are scarce. The meat is well preserved in cellars dug in the perpetually frozen soil.

The natives in the villages in the vicinity of Kotzebue Sound live chiefly on dried and smoked salmon; berries are plentiful in this section and constitute a portion of the diet. Provisions are kept in caches upon elevated platforms.

Ptarmigan, wild ducks, and geese are plentiful all along the coast; reindeer meat is used to some extent, and seal oil is consumed in great quantities and is considered a delicacy. Coffee, tea, sugar, canned goods, flour, and other staples are purchased from the traders for skins. The women make a sort of bread, and sometimes the dough is fried in seal oil, as our doughnuts are fried in lard.

Water supply.—The water supply of these settlements is usually melted ice or snow; the water is of good quality. During the summer months shallow wells furnish water to the natives in the villages of Kotzebue, Kivalina, and Point Hope; streams are utilized in the other villages where they are convenient of access.

Occupations.—Hunting, fishing, and trapping are the principal occupations of the men, while the women make all the clothing and footwear for the family, in addition to performing their household duties. Fur clothing and skin boots are worn throughout the year. A large number of the natives are engaged in raising reindeer. This industry should be encouraged, for it not only is a profitable business but a healthy occupation. The outdoor life which is required of the herders is directly responsible for their healthy appearance.

Climate.—The climate of the Arctic coast is comparatively dry and naturally conducive to health. The summers are short, from two to three months, and during this period continual daylight prevails. The winters are very long and cold, with a moderate snowfall; the ground is perpetually frozen.

The climate is an important factor in the existing health conditions. While the cold exerts its protective influences and prevents the occurrence of infections usually resulting from insanitary premises, on the other hand it is the principal predisposing cause in the dissemination of tuberculosis among these people, in that it confines them to their insanitary homes the greater part of the year.

Diseases.—Tuberculosis is the most important and prevailing disease with which these natives are afflicted; it is present in all its various forms and stages. The number of cases in each village, as further indicated in this report, does not, however, represent the actual number of infections. I am justified in presuming that many cases have escaped my notice from the fact that time did not permit me to conduct a thorough examination.

From reports of Dr. A. J. Watkins, the surgeon on the *Bear* for the past two years; of Dr. Barbour, formerly at Kotzebue; of the teachers of the service, and from my own observations, I would estimate the percentage of active tuberculosis among the natives of the Arctic coast to be equal to that of other sections of Alaska, namely 6 to 9 per cent. The greatest number of cases actually detected were at Wainwright and Barrow.

While tuberculosis is prevalent, eye diseases are very uncommon. But few cases of minor eye trouble were treated and not a single case of trachoma was discovered. A number of cases of syphilis were seen at villages, where there is no doubt that the infection had been introduced by whites. A large number of children are mouth breathers, a condition usually due to the presence of adenoids in the naso-pharynx.

Other diseases which were treated or reported were those due to exposure—rheumatism, bronchitis, and pneumonia. Complaints of gastric disturbances were frequently met with; these troubles are due to the almost exclusive diet of meats and oils and to the insufficiently cooked food. Epidemics of grippe,

measles, chicken pox, and infantile paralysis have been reported from different villages during the past year.

Causes of disease.—There is no doubt that the home life of these natives is responsible for the majority of their diseases. Considering the long winters of continual darkness, during which period these people live in small, overcrowded, overheated, and unventilated quarters, under conditions most favorable for the spread of communicable diseases, the number who escape infection is really remarkable.

The all-night dances, which are of frequent occurrence in all of the villages, at which event from 50 to 60 people crowd into a small space under conditions most insanitary, and where singing, dancing, smoking, coughing, and expectorating prevail during the performance, are also great factors in the dissemination of tuberculosis and other communicable diseases.

Other sources of infection are the common drinking cups and towels, the unclean nursing bottles, two children nursing from the same nipple, several persons eating out of the same bowl with their fingers, the habit of mothers chewing food for their infants, the practice of children exchanging gum and candy, and of placing pencils into their mouths. All these conditions and customs require to be corrected or abolished before permanent results can reasonably be expected.

Recommendations.—To improve the general health of the Eskimos of the Arctic coast it is necessary to remove and improve the conditions which are responsible for their diseases, undermining their systems, and interfering with their earning a livelihood. This may be accomplished by proper education, isolation, and medication.

The most urgent demand in this movement is to isolate those who are a constant menace to others. For this purpose hospitals are necessary. The two central points at which hospitals should be erected and where they will serve to the best advantage, in my opinion, are Kotzebue and Barrow. These institutions should be properly equipped and each have a capacity of at least 15 beds. A competent physician and a trained nurse should be attached to each institution. The services of a trained nurse are also required for village work at Point Hope and Wales. Only willing and competent persons, who must necessarily receive adequate remuneration, should be employed for this work; all others are useless and expensive at any cost.

The dances, previously described, ought either to be abolished or conducted under more hygienic surroundings. Outdoor sports should be encouraged, special effort should be put forth to improve the home environments, more attention and time devoted to teaching hygiene, sanitation, personal cleanliness, proper preparation of food, and the prevention of the common diseases. No teacher, however capable and willing, can perform all these duties properly in addition to the regular work.

To improve the homes is very important, and I am of the opinion that the building of expensive frame houses from imported lumber is a mistake and should be discouraged. An effort should be made to improve the sod igloos, which can be built of the material at hand. The natives should be advised in what manner their present homes may be improved, and where this is impossible erect new buildings. It would be well if in the future all buildings could be erected according to suitable plans and under the supervision of some competent person.

Conclusion.—When one compares the Alaskan Eskimo with his brother of Siberia the difference in favor of the former is readily apparent, but there is still considerable to be accomplished before the task of civilising these amiable and worth-while people is completed.

Dr. A. J. Watkins, of the Public Health Service, detailed as surgeon to the revenue cutter *Bear*, for the past two seasons has been of great assistance to me in my inspection of the various villages. He has taken a special interest in the natives, and in spite of the prevailing unfavorable conditions he has always been very attentive, painstaking, and careful in diagnosing and treating those who applied for relief.

REPORT ON HEALTH CONDITIONS IN THE NATIVE VILLAGES IN SOUTHEASTERN ALASKA.

By EMIL KRCLISH, passed assistant surgeon, United States Public Health Service.

In compliance with the request of the Commissioner of Education, I have visited the native settlements in southeastern Alaska for the purpose of collecting as complete a record as possible of the health conditions of the native people in this section.

Number examined.—All persons in the villages at the time of my visit were examined; the number inspected and utilized as the basis of this report is 2,494. The native population of this district is approximately 5,200; and the reason why the number of examinations was not larger is due to the fact that the majority of these people are out in camps the greater part of the year.

Tuberculosis.—The percentage of tuberculosis in the district is approximately 8 per cent. This includes all forms, and I believe that these figures are as accurate for all practical purposes as can be obtained under the difficulties existing in connection with the routine of inspection. The percentage of infection is a matter of statistics; a difference of 1 or 2 per cent is really immaterial. We know the disease exists, and the number of cases will surely increase unless prompt and active measures are taken to suppress it.

The figures given in this report indicate the actual number of active tubercular infections and do not include the tubercular predispositions; those weakly constituted and susceptible to infection, and who will, no doubt, acquire the disease in the future. In some reports on this subject these cases were evidently reported as actual cases of tuberculosis, and this erroneous classification no doubt accounts for the apparent discrepancies in some of them.

Considering the overcrowded and insanitary conditions prevailing in the majority of the native homes harboring tubercular cases, one would expect to find a higher percentage of infection, but fortunately after the disease is firmly established the progress of it is usually very rapid, and death thus removes the focus of contagion and diminishes the liability of spreading the infection. This applies especially to the women, in whom frequently the disease develops subsequent to the birth of the first child. Each succeeding pregnancy weakens them until they succumb to the disease. I have seen several women in the last stages of tuberculosis, who were about to become mothers. That tubercular girls should remain single is therefore obvious.

Adenoids and tonsils.—Throat affections are very common among the young people. Approximately 20 per cent of the children under 20 years of age have adenoids and tonsils requiring surgical attention. When this is neglected it predisposes the individual to tuberculosis, diphtheria, and other throat infections, impairs the hearing, retards the mental development, and results in deformities of the jaws, mouth, teeth, and palate. The effects of adenoids and diseased tonsils are manifested in every native settlement.

Syphilis.—The number of cases of syphilis in the district is difficult to determine accurately, for the reason that the symptoms of this disease do not always manifest themselves externally, and to obtain a reliable history of previous indications is absolutely impossible.

Eye diseases.—Eye diseases are very common in southeastern Alaska. Over 10 per cent of the natives examined showed evidence of having had eye trouble at some time. The majority of the blindness and partial loss of vision might have been prevented by proper treatment in the early stages of the disease. In every village there are a number of eye cases demanding immediate surgical attention. Some are totally blind from cataracts; the sight in these helpless individuals can be restored by surgical treatment, but without the necessary hospital facilities any attempt would be inadvisable.

Rheumatism.—The large number of rheumatic cases is due to the damp climate of southeastern Alaska; the rainfall in this section is exceedingly heavy, and the frequent exposure in wet clothing and footwear is responsible for these cases.

Hospitals.—Well equipped hospitals are absolutely essential for the proper care of both medical and surgical cases, and without these institutions it is impossible to obtain the desired results. The treatment of natives in the majority of the homes is hopeless, discouraging, and a waste of time and labor, although physicians in the service are frequently compelled to perform surgical operations in homes and schoolrooms on cases where prompt attention is imperative. I question whether we are justified in subjecting these patients to the failures and dangers which are liable to occur when operating without proper facilities and assistants.

The natives themselves realize the necessity for hospitals, and some have remonstrated against these frequent inspections by the Government, which they naturally consider farcical because no action has been taken to relieve the situation. At one of the villages in southeastern Alaska I was reminded that I was the sixth Government doctor to inspect the settlement and submit a report to the Washington authorities.

I am heartily in favor of establishing these hospitals, for without them the work of the physicians is difficult and discouraging and if the erection of these institutions is impossible I believe that the medical work may as well be limited to the teachers and nurses.

At present the St. Ann's Hospital in Juneau is the only equipped institution in this section available for natives, and the quarters assigned to these cases are not very desirable. Formerly, when the Government hospital was in operation, natives were admitted into the hospital for treatment for 50 cents a day, while now they are compelled to pay $2.25 a day for inferior accommodations. The discontinuance of the Government institution has advanced this hospital relief beyond the means of the native, for where previously many availed themselves of the facilities provided by the Government, only a very few seek relief under the present system. The Government hospital was increasing in popularity and favor, and since it has been abolished the natives appreciate their loss.

The locations for the proposed hospitals in southeastern Alaska depend upon the situation of the settlements and the transportation facilities afforded to each community. I believe that one institution should be located on the west coast of Prince of Wales Island, either at Klawock or Hydaburg. The location of the other hospital depends on whether it is proposed to establish one large institution or two smaller ones; I am in favor of the latter, for two hospitals are really needed and they would materially increase the amount of relief rendered. A hospital at Juneau would serve the people of Klukwan, Haines, Skagway, Juneau, Douglas, Yakutat, Hoonah, Killisnoo, and Sitka; while one located at Ketchikan, another native center, would afford relief to the natives of Wrangell, Petersburg, Ketchikan, Saxman, Metlakahtla, Kasaan, Loring, and Kake. Located as outlined, one of these institutions could readily be reached from all sections of the district, either by the regular line of passenger boats or

by means of the individual gas boats, several of which are available in every community. These hospitals can have a capacity of 15 beds and the physician in charge should devote his entire time to the native work.

Tuberculosis sanitarium.—To suppress the ravages of tuberculosis there is but one course to follow, and that is the removal of the infected cases from the homes to an institution adapted for the care of such persons. The occasional dispensing of cough mixtures to these patients in their homes is unscientific and worthless.

After carefully considering all the requirements, I believe that the most desirable location for the establishment of a tuberculosis camp for the natives of southeastern Alaska is in the Chilcat Valley, between Haines and Klukwan. Superintendent Beattie and I looked over this field on our recent trip to Klukwan, and we have selected three sites several miles apart in the drier section of the valley, any one of which would be suitable for the sanitarium. There is but one objection to these locations, however, and that is their distance from Haines, the point which would necessarily be the base of supplies, and the direction from which the majority of the patients would arrive. The climate in the immediate vicinity of Haines is not quite as dry as in the upper valley, but this slight difference is really immaterial and will not affect the results.

The same institution can also be used for those predisposed to the disease and thus act as a preventorium. A school can be operated in connection with this preventorium for those of school age who are able to attend.

Conclusion.—To improve conditions in general in these native settlements it is necessary for them to abolish the communal homes which are now housing two to six families; to maintain the premises and homes more sanitary; to substitute sanitary privies for the present system of disposal of human excreta; to strictly enforce the law prohibiting the sale of liquor to natives; and to encourage gardening in order to supply the people with a more liberal vegetable diet. In the schools the teaching of the essentials of hygiene and sanitation is most important.

For the details of the conditions in the villages in southeastern Alaska I respectfully refer you to the report of Dr. M. H. Foster, dated August 30, 1911.

The following table summarizes the information secured by me with regard to the prevalence of disease in the native villages in southeastern Alaska:

Place.	Number inspected.	Trachoma.	Blindness.	Cataracts.	Other eye affections.	Tuberculosis—lungs.	Tuberculosis—other forms.	Syphilis.
Klukwan	118	4	3	3	12	9	3	3
Haines	115	6	3	7	17	16	3	6
Klawock	179	0	1	2	5	8	5	4
Hydaburg	230	0	2	3	15	7	7	7
Kake	154	3	1	1	6	9	0	4
Petersburg	38	0	0	0	2	2	2	0
Wrangell	118	2	0	1	11	6	2	1
Hoonah	176	8	6	8	24	11	7	4
Kasaan	69	0	0	0	2	2	0	0
Metlakahita	229	0	1	3	10	14	4	7
Saxman	86	2	0	0	4	4	0	3
Ketchikan	128	3	1	1	3	10	6	3
Juneau	164	3	1	1	11	9	5	4
Sitka	276	4	3	3	34	8	8	7
Shagway	8	0	0	0	1	0	1	0
Yakutat	123	11	6	3	13	3	2	6
Killisnoo	147	4	6	4	14	9	2	4
Douglas	146	2	1	0	11	8	1	7
Total	2,494	52	35	37	196	135	60	70
Percentage		2	1.4	1.5	7.9	5.4	2.4	2.8

Tuberculosis (all forms), 7.8 per cent.
Eye affections (all forms), 10.3 per cent.

MEDICAL WORK BY TEACHERS.

The following letter indicates the action which, in the absence of a physician, teachers must sometimes take in order to check outbreaks of disease:

KENAI, ALASKA, *October 25, 1913.*

Mr. W. T. LOPP,
Chief of the Alaska Division, Bureau of Education,
Colman Building, Seattle, Wash.

DEAR MR. LOPP: We wish to inform you that an epidemic of measles exists here at the present time. Up to date we have 132 cases. We have quarantined nearly every house in the village. We informed Dr. Schaleben of the epidemic and that we were nearly out of all medicines. We hope to secure relief from him soon. We are sure that this large number of cases would not have occurred had some of the whites and "near whites" kept the quarantine. As nearly all of our natives are sick with the measles, and some of them very serfously, in order to keep a strict quarantine and to enforce the same we were forced to place guards and to have them patrol the village, two at night and two in the daytime. In many of the houses all the natives are sick and helpless, hence the guards are supplying them with wood and water and such other aid as they might require from time to time. We visit the sick every day, and in serious cases often twice and three times. The serious cases are complicated with pneumonia and bronchitis, especially among the grown-up natives.

We have used up all our allowances for destitution and domestic science to relieve the suffering and to give them the necessary food to live on. Nearly all the natives are out of money, owing to the saloon having been open this fall, and with this epidemic on they are unable to get moose meat. However, Mr. Kuppler has gone out to the hills to get moose meat for them, so that they might have some relief.

In treating the sick we have followed the instructions of Drs. Krulish and Neuman, as given in the Medical Handbook for the Alaska School Service. We find this book invaluable.

Up to the present we have had no deaths. Although there are three or four patients in a very critical condition, we have faith that we can pull them safely through. The weather has been most unfavorable, violent snowstorms and rain nearly every day. This makes it hard to keep the native houses comfortably warm, as the sickness demands.

We have closed the school, the church is closed, and there are no public gatherings or dances.

We are doing everything in our power to keep the measles from spreading to the other villages on the inlet, and we trust that our efforts in this direction will prove successful. It is the whites and "near whites" that we can not control, owing to the conditions prevailing here.

Will you kindly let us know what provision is made for the payment of the guards whom we hired, as per Dr. Krulish's instructions in his medical handbook? We have no authorization to cover this, and as the situation would not admit of our waiting for further instructions from Dr. Schaleben, we followed those in the medical handbook faithfully. It was imperative to have guards, as the lawless element of the whites were willfully trying to spread the disease.

Respectfully,

WILLIETTA E. KUPPLER,
ALICE M. DOLAN,
Teachers.

SECTION 4.—SPECIAL REPORTS: THE HYDABURG COLONY.

By CHARLES W. HAWKESWORTH, teacher, in charge.

The second year of the Hydaburg settlement has been even more satisfactory than the first. Foremost among the successes has been that of the Hydaburg Trading Co. When this company was organized many natives were chary of investing their funds in the store to be managed and directed by their own

people. In both Klinquan and Howkan various natives had owned stores and for a time had carried on quite a business, but without exception every one had failed. It was only upon the assurance that the Bureau of Education would oversee the accounts and attend to the bookkeeping that the natives were willing to buy shares in the Hydaburg Trading Co.

Mr. Sinclair, of the Seattle office, fixed the Trading Co.'s credit with the wholesale houses in Seattle and attended to the buying. In a short time confidence in the store began to grow among the people. The capital stock, at the beginning of the business was placed at $5,000, but previous to the closing of the books, November 30, 1912, before it was known what the earnings of the company had been, men, women, and children came to the secretary and bought every remaining share of the capital stock. In marking the goods our manager fixed his prices to correspond with those current in neighboring stores. When the directors looked over the figures of the year's business they voted to declare a dividend of 50 per cent on the investment.

The night when all the people of Hydaburg gathered in the schoolhouse to listen to the statement of the year's business and to hear the exact figures their money had earned will long be remembered. It was the first occasion of its kind in the history of Alaska and showed that what had been accomplished in one village could also be accomplished in another if the people would pull together. The only regret I heard expressed was that during the 30 years that missionaries and teachers had been among them no one had ever showed them how to cooperate and save the earnings on the money they spent during the year.

Since the original stock had been sold out the stockholders at once voted to increase the capital stock to $15,000, which would provide funds for the establishment of the fish business we hoped to get started as soon as we were in a position to handle so large an enterprise.

The work of the store has been fairly simple when compared with that of the sawmill. The natives of southeast Alaska have long seen how sawmills have been run and how many times they are abandoned after a few years' work. Many believed they would make no money by investing their funds in a sawmill, though all were certain one was needed to build up the new town. It was hard to get money to put the mill on a sound financial basis; in fact the mill has never had sufficient funds with which to work. It was understood when the sawmill started that it was to be run and managed by the people themselves, for we were informed that there were some qualified millmen among our own people. Running a sawmill requires farsighted wisdom as well as an intimate knowledge of men and machinery. Persons possessing these qualifications are not very numerous in the white settlements in Alaska—they are still scarcer among our native people. Upon closing the lumber company's accounts we found the mill had gone behind $59.45.

During our first year the Hydaburg people voted for and elected their mayor and councilmen from among the older men, who had not learned to accept the criticisms which come to any officeholder the world over. Therefore when the day for the next annual election arrived, these first directors requested the voters to elect only young men for office.

Our local preacher was elected mayor; all the new councilmen had attended either the Klinquan or the Howkan schools. This council early went on record to the effect that all the business of the town should be transacted in the English language; this was decidedly a radical step, as practically all of the conversation about town had been carried on in the native tongue.

The first cooperative work under the new council was the building of a sidewalk through the town. The treasury was empty, but the young men had

money in their pockets from the season's fishing and they wanted a good time. The girls planned a basket social. Now, basket socials here are quite different from those we have all known in country towns in the States. Here the baskets are of water-pail size and contain a full meal. The proceeds of the social were used in buying nails for use in building the sidewalk. From the 63 baskets sold, $290 was realized. The labor was performed without charge.

The work lasted three weeks, and the total amount each man had given was summed up in public meeting for the benefit of all. The walk is 10 feet wide and 3,400 feet long, and includes a bridge across the salmon stream which runs through the center of the town. This sidewalk has been called the best one in southeast Alaska.

The deliberations of the people in regard to the work of the village partake of the nature of a town meeting. Each man feels free to express his views at length, after repeating what has been said by a previous speaker. The idea of listening to a statement and then voting upon it is slowly being understood. The young men like the new way, but the older ones feel that even though it does take three nights to discuss a proposition, every man has a chance to exhaust his stored-up oratory, which must find expression at such times.

Early in the first year at Hydaburg the men, working together in public enterprise, built a float of five big spruce logs, which they anchored off shore in front of the sawmill as a landing place for all small boats. Then they had to row ashore in a skiff. The mail reaches us on Monday nights from Sulzer, and gets here between 10 p. m. and 1 a. m. In all kinds of weather we had to row out and bring the mail man ashore. The freight steamer could never come near the float on account of the shallow water. We had to go out with gas boats and bring the freight ashore. We all wanted a dock, but the fishing season was fast approaching when the spring salmon would run, and it seemed as though we would not be able to get it this year. However, Mr. Beattie made an extra inducement, and Mr. Weigle, of the Forest Service, gave the town free use of logs for the sidewalk if the people would finish the dock before the fishing season of 1913 began. Again the whole town got together and built the wharf we now use, which is 442 feet long and has a front of 55 feet. Such large undertakings are easily finished when the people work together.

With regard to the health of the town it will be of interest to note that no one has died in Hydaburg from disease contracted here. We have had some sickness, and Dr. Pigg, of Sulzer, has helped Mrs. Hawkesworth considerably in handling the different cases. Our regular school work during the year progressed with interest and vigor. Among the incentives we introduced was that of taking the parents into partnership with the teachers in promoting interest. Twice a month it was our custom to hold a review of the subjects studied. At those times the parents would visit the school, listening to their children's work, and, when so disposed, asking questions. The cooking classes, after their regular lessons were over, often served the products of their art to the male members of the school.

A real hunger for business training came among our young people when the store was established a year ago last fall. The teacher took a special course in modern business methods during the quiet months of July and August, and was ready to impart these methods to the class of 11 young men who started in just before Thanksgiving. In all of my teaching in Alaska I have never seen so great an interest expressed as by that class of eleven. We met from 6.30 to 9.30 on the only three available nights in the week, Monday, Thursday, and Friday. Almost without exception, when the hour for closing arrived different members of the class wanted to stay longer. Alaskans are easily

interested in any subject that has a practical bearing upon life as it is lived to-day.

It would be difficult to find any people more loyal to law, when they once understand that law, than the natives with whom we labor. But they see so much indifference to law and direct violation of it on the part of cannery crews in the summer time that they often wonder what has become of the power behind the law and why violators of it are not punished.

Situated as we are, it is hard to bring legal questions before the already appointed judges either at Sulzer or Craig. I see no reason why we could not establish at Hydaburg a local court with one of our best educated and trained men as commissioner. As long as he was coached on legal questions by the bureau's representative and had the district court behind him, he would be able to settle many disputes right here at home. Naturally, all of us want to have every difficulty settled in friendly ways, but in our present stage of development there are bound to be some questions that can not be settled otherwise than by the strong arm of the law.

We now have under construction the finest school building in Alaska, where we can apply the school city idea of self-government. We are to have the equipment for training the girls into model home builders and the boys into self-reliant industrial workers, who not only will originate ideas, but also publish a paper telling others of their scheme of life. We have the cooperative system of business that has already made wealthy communities out of poor families in England and reduced the cost of living for scores of working people in New York, New England, and in the Pacific northwest. With the capacity for leadership that our people have shown in other directions I want to see a local court established for their benefit.

METLAKAHTLA.

In 1857 Mr. William Duncan, of Yorkshire, England, was sent by the Church Missionary Society of London, England, as a lay missionary to the Tsimsean tribe of natives in the vicinity of Fort Simpson, British Columbia. Through his efforts this tribe was, in course of time, raised from its primitive condition.

Disagreement with the bishop of the Church of England, who had been sent to preside over the religious activities of the colony, also troubles with the Canadian Government regarding the ownership of land, caused the natives under Mr. Duncan's guidance to consider the question of migrating from British Columbia into Alaska. Accordingly, Mr. Duncan visited Washington, where he conferred with the President, with the Secretary of the Interior, and with other officials regarding the proposed migration. The result of Mr. Duncan's visit to Washington was that in 1887 the colony moved from British Columbia to Annette Island, in Alaska.

Congress in the fifteenth section of the act approved March 3, 1891 (26 Stat., 1101), provided that—

Until otherwise provided by law, the body of lands known as Annette Islands, situated in the Alexander Archipelago in southeastern Alaska, on the north side of Dixon's entrance, be, and the same is hereby, set apart as a reservation for

the use of the Metlakahtla Indians, and those people known as Metlakahtlans, who have recently emigrated from British Columbia to Alaska, and such other Alaskan natives as may join them, to be held and used by them in common, under such rules and regulations and subject to such restrictions as may be prescribed from time to time by the Secretary of the Interior.

Upon the reservation thus provided the settlement grew and prospered. In a statement to the Commissioner of Education, March 21, 1898, contained in Senate Document No. 275, Fifty-fifth Congress, second session, Mr. Duncan thus describes the establishment of industries in Metlakahtla and his plans for the future:

On migrating from British Columbia to Alaska in 1887 we had to forfeit all the industrial plant we had raised at old Metlakahtla. This so much reduced my means that I could not start afresh on any large scale without calling to my friends in America for help. As soon as my plans and needs were known several Christian philanthropists in sympathy with the Indians immediately responded to the call and the sum of about $11,000 was subscribed, and with this sum and my own means the Metlakahtla Industrial Co. was incorporated. The natives have taken shares in the company, and now, after seven years of hard labor, we have a paid-up capital of about $54,000, of which the natives own about $3,000.

The industries I have already named are a salmon cannery, with a capacity for packing 20,000 cans of salmon a year; a sawmill, which can cut 10,000 feet of lumber per day; and a general store, which disposes of about $20,000 worth of goods each year. The Indians are the employees in all the work, and we hope at no distant day they will be sole proprietors of the whole industrial plant. To reach this they have only to purchase the $11,000 of stock from our American friends. My share of the stock, which is $40,000, is virtually theirs already, for not only while I live but after my death it will be used to carry on church, school, and medical work for the settlement, and if the businesses are successfully conducted will yield a further sum which can be spent in extending the industrial plant. All that the natives now need and crave for from the Government is a secure tenure of their island home, citizenship, and their town incorporated as a municipality.

The same document also contains Mr. Duncan's statement regarding Government aid received by him toward the support of the school at Metlakahtla:

For the current expenses of our school work we received grants from the United States Government for several years, namely, from 1888 to 1894, inclusive, amounting, in all, to $12,710. For the first four of these years the yearly grants averaged $2,500, and the latter three years the average grant was $840. The reports transmitted to the educational department yearly will show that in the earlier years, in addition to the day school, we had a training and boarding school, but when the grants were reduced only the day school was carried on. During the last three years, in common with other contract schools in Alaska, grants in aid have been discontinued to us, but we carry on the day school as heretofore, the expense being borne, as all other expenses of the mission are, out of funds derived from my shares in the Metlakahtla Industrial Co.

As the Metlakahtlans came into closer touch with the neighboring settlements and observed the schools among them, they became im-

pressed with the necessity for better educational facilities than those existing in Metlakahtla. Numerous letters and petitions were received by the Commissioner of Education from the Metlakahtlans asking for the establishment in their village of a United States public school under the management of the Bureau of Education. The Commissioner of Education, not being thoroughly convinced of the wisdom of placing a United States public school in this unique settlement, and lacking the necessary funds, deferred bringing the matter to the attention of the Secretary of the Interior.

The cogency of the petitions which continued to come from the natives of Metlakahtla, the recommendations of the chief of the Alaska division and of the superintendent of schools in southeastern Alaska, also the visits of the governor of Alaska and of the Commissioner of Education to Metlakahtla, finally resulted in a request to the Secretary of the Interior for authority to establish a United States public school in Metlakahtla. The request was granted, and the school was opened during November, 1913. The Metlakahtlans showed their appreciation of the school by placing at the disposal of the Bureau of Education a large hall in which the sessions of the school can be held until funds are secured for the erection of a suitable school building, by providing a residence for the teacher, and by contributing $250 toward the teacher's salary.

The following extracts from the letters of Charles D. Jones, teacher of the United States public school at Metlakahtla, to the Bureau of Education describe his reception by the Metlakahtlans and show the real gratitude of the Metlakahtlans for Mr. Duncan's services.

METLAKAHTLA, ALASKA, *November 27, 1913.*

We landed here about noon November 17. In all my life I have never met with so many surprises as in the time since then.

When we arrived at Metlakahtla we were greeted at the dock by all the natives of the village and escorted by the leaders to a well-spread table at Councilman Calvert's home. Unfortunately we had dined on the boat just before landing and could not partake of their well-meant hospitality. They were equal to the occasion, however, and suggested that we walk about the village until we had worked up an appetite. This we did and enjoyed both the walk and the postponed dinner. Near the end of our walk we stopped at the hall which the town had turned over to us for school purposes. Here we were given, unexpectedly, an informal reception by some of the members of the town council. The most interesting and touching part of this impromptu affair was a song of victory led by two of the councilmen of the Tsimpsean Tribe, Adolphus Calvert and Sydney Campbell. Mr. Campbell introduced this song by telling how he and a small company of old men had chanted a very ancient and solemn dirge, some three years before, on Mr. Lopp's first visit to Metlakahtla. He said they were heartbroken on that occasion because Mr. Lopp could give them no definite promise that the Government would give them a public school. Now, he said, they all felt like shouting for joy, so they would sing the old Tsimpsean victory song in appreciation of this great event—the opening of the United States public school in their midst.

In the evening we were taken to the other public hall, built and supported entirely by the natives. Here we were privileged to listen to some very pathetic and most excellent addresses. Among the speakers were Simon Dalton, Edward Benson, Mark Hamilton, Sydney Campbell, Edward Mather, Adolphus Calvert, Edmond Verney, Frank Allen, and Edward Marsden, of Saxman. These speakers showed themselves to be aboriginal giants in strength of poise, choice imagery, and forensic ability. Strange to say, there was absolutely no trace of invective in their discourses, as might have been expected. On the other hand, their speeches were full of gratitude for the service done them by their old leader and famous missionary, William Duncan. Each address ended in an earnest prayer that the opportunity for educational advantages, such as the other natives of Alaska are given by this Government, be not denied them because they happen to live on Annette Island and have been under the tutelage of this noted man. It was interesting to me, and it surprised me not a little, to hear these men make such practical statements of their condition and what they believed the Government could do for them. The speech making began about 7 in the evening and closed at about 11, after which there was music, and the young ladies served sandwiches, cake, and coffee, and another hour passed pleasantly while we became acquainted.

While this delightful program was going on, several of the young men were busy over at the other hall setting up the desks and preparing the building for the opening of school on the morrow. When we arrived on the scene the next morning the room was packed with pupils waiting to be enrolled. At the present time we have 89 day pupils and 27 night students enrolled, and more will be entering as soon as the school is capable of receiving them. We are not able to seat a third of the pupils at desks, so they are sitting around the room on chairs, benches, and boxes. We are waiting until we can get more desks from Seattle.

It is in order to say here that between 40 and 50 children are attending schools in the States, so I understand, and the expense of their transportation has fallen upon their parents. I have been informed that each of these children costs the Government about $200.

Another striking feature of the conditions here is that all my advanced pupils have received their education elsewhere, while those educated wholly at Mr. Duncan's school fall below the fourth grade. He has probably about 20 under his instruction at the present time.

On Thursday evening we attended a basket social. To see the tables full of beautifully trimmed baskets and the well-lighted hall full of nicely dressed people was a sight worth seeing. This social was held for the purpose of securing the balance of the $250 they had pledged toward the salary of the teacher. In addition they repapered and completely furnished a four-room cottage for us to live in, and took upon themselves the task of making all repairs to the house and school building, also of furnishing light and fuel for both. One of the delightful things about it is that they have done it all so cheerfully. Every day a member of the school board drops in to see if there is anything we need.

METLAKAHTLA, ALASKA, *January 8, 1914.*

We are holding two sessions in the day school of three and one-half hours each. We begin at 9 o'clock and close at 5 o'clock. There are 120 enrolled in the day school and the night school stands about the same as when you left. Average attendance about 110 in the day school. We hold night school three nights out of the week. I don't know how long we can stand the pressure. We are looking for an assistant teacher on every boat.

BULLETIN OF THE BUREAU OF EDUCATION.

[NOTE.—With the exceptions indicated, the documents named below will be sent free of charge upon application to the Commissioner of Education, Washington, D. C. Those marked with an asterisk (*) are no longer available for free distribution, but may be had of the Superintendent of Documents, Government Printing Office, Washington, D. C., upon payment of the price stated. Remittances should be made in coin, currency, or money order. Stamps are not accepted. Documents marked with a dagger (†) are out of print.]

1906.

†No. 1. Education bill of 1906 for England and Wales as it passed the House of Commons. Anna T. Smith.
†No. 2. German views of American education, with particular reference to industrial development. William N. Hailmann.
*No. 3. State school systems: Legislation and judicial decisions relating to public education, Oct. 1, 1904, to Oct. 1, 1906. Edward C. Elliott. 15 cts.

1907.

†No. 1. The continuation school in the United States. Arthur J. Jones.
†No. 2. Agricultural education, including nature study and school gardens. James R. Jewell.
†No. 3. The auxiliary schools of Germany. Six lectures by B. Maennel.
†No. 4. The elimination of pupils from school. Edward L. Thorndike.

1908.

†No. 1. On the training of persons to teach agriculture in the public schools. Liberty H. Bailey.
*No. 2. List of publications of the United States Bureau of Education, 1867-1907. 10 cts.
*No. 3. Bibliography of education for 1907. James Ingersoll Wyer, jr., and Martha L. Phelps. 10 cts.
†No. 4. Music education in the United States; schools and departments of music. Arthur L. Manchester.
*No. 5. Education in Formosa. Julean H. Arnold. 10 cts.
*No. 6. The apprenticeship system in its relation to industrial education. Carroll D. Wright. 15 cts.
*No. 7. State school systems: II. Legislation and judicial decisions relating to public education, Oct. 1, 1906, to Oct. 1, 1908. Edward C. Elliott. 30 cts.
*No. 8. Statistics of State universities and other institutions of higher education partially supported by the State, 1907-8. 5 cts.

1909.

*No. 1. Facilities for study and research in the offices of the United States Government in Washington. Arthur T. Hadley. 10 cts.
*No. 2. Admission of Chinese students to American colleges. John Fryer. 25 cts.
*No. 3. Daily meals of school children. Caroline L. Hunt. 10 cts.
†No. 4. The teaching staff of secondary schools in the United States; amount of education, length of experience, salaries. Edward L. Thorndike.
No. 5. Statistics of public, society, and school libraries in 1908.
*No. 6. Instruction in the fine and manual arts in the United States. A statistical monograph. Henry T. Bailey. 15 cts.
No. 7. Index to the Reports of the Commissioner of Education, 1867-1907.
*No. 8. A teacher's professional library. Classified list of 100 titles. 5 cts.
*No. 9. Bibliography of education for 1908-9. 10 cts.
No. 10. Education for efficiency in railroad service. J. Shirley Eaton.
*No. 11. Statistics of State universities and other institutions of higher education partially supported by the State, 1908-9. 5 cts.

1910.

*No. 1. The movement for reform in the teaching of religion in the public schools of Saxony. Arley B. Show. 5 cts.
No. 2. State school systems: III. Legislation and judicial decisions relating to public education, Oct. 1, 1906, to Oct. 1, 1909. Edward C. Elliott.
†No. 3. List of publications of the United States Bureau of Education, 1867-1910.
*No. 4. The biological stations of Europe. Charles A. Kofoid. 50 cts.
†No. 5. American schoolhouses. Fletcher B. Dresslar.
†No. 6. Statistics of State universities and other institutions of higher education partially supported by the State, 1909-10.

1911.

*No. 1. Bibliography of science teaching. 5 cts.
*No. 2. Opportunities for graduate study in agriculture in the United States. A. C. Monahan. 5 cts.
*No. 3. Agencies for the improvement of teachers in service. William C. Ruediger. 15 cts.
*No. 4. Report of the commission appointed to study the system of education in the public schools of Baltimore. 10 cts.
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†No. 12. Training of teachers of elementary and secondary mathematics.
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†No. 17. List of publications of the United States Bureau of Education, October, 1911.
*No. 18. Teachers' certificates issued under general State laws and regulations. Harlan Updegraff. 20 cts.
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1912.

*No. 1. A course of study for the preparation of rural-school teachers. Fred Mutchler and W. J. Craig. 5 cts.
†No. 2. Mathematics at West Point and Annapolis.
*No. 3. Report of committee on uniform records and reports. 5 cts.
*No. 4. Mathematics in technical secondary schools in the United States. 5 cts.
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*No. 13. Influences tending to improve the work of the teacher of mathematics. 5 cts.
*No. 14. Report of the American commissioners of the international commission on the teaching of mathematics. 10 cts.
†No. 15. Current educational topics, No. II.
†No. 16. The reorganized school playground. Henry S. Curtis.
*No. 17. The Montessori system of education. Anna T. Smith. 5 cts.
†No. 18. Teaching language through agriculture and domestic science. M. A. Leiper.
*No. 19. Professional distribution of college and university graduates. Bailey B. Burritt. 10 cts.
†No. 20. Readjustment of a rural high school to the needs of the community. H. A. Brown.
†No. 21. Urban and rural common-school statistics. Harlan Updegraff and William R. Hood.
No. 22. Public and private high schools.
No. 23. Special collections in libraries in the United States. W. Dawson Johnston and Isadore G. Mudge.
†No. 24. Current educational topics, No. III.
†No. 25. List of publications of the United States Bureau of Education, 1912.
†No. 26. Bibliography of child study for the years 1910–1911.
No. 27. History of public-school education in Arkansas. Stephen B. Weeks.
*No. 28. Cultivating school grounds in Wake County, N. C. Zebulon Judd. 5 cts.
No. 29. Bibliography of the teaching of mathematics, 1900–1912. David Eugene Smith and Charles Goldziher.
No. 30. Latin-American universities and special schools. Edgar E. Brandon.
No. 31. Educational directory, 1912.
No. 32. Bibliography of exceptional children and their education. Arthur MacDonald.
†No. 33. Statistics of State universities and other institutions of higher education partially supported by the State, 1912.

1913.

No. 1. Monthly record of current educational publications, January, 1913.
*No. 2. Training courses for rural teachers. A. C. Monahan and R. H. Wright. 5 cts.
*No. 3. The teaching of modern languages in the United States. Charles H. Handschin. 15 cts.
*No. 4. Present standards of higher education in the United States. George E. MacLean. 20 cts.
†No. 5. Monthly record of current educational publications, February, 1913.

*No. 6. Agricultural instruction in high schools. C. H. Robison and F. B. Jenks. 10 cts.
†No. 7. College entrance requirements. Clarence D. Kingsley.
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†No. 11. Monthly record of current educational publications, April, 1913.
*No. 12. The promotion of peace. Fannie Fern Andrews. 10 cts.
†No. 13. Standards and tests for measuring the efficiency of schools or systems of schools. Report of the committee of the National Council of Education. George D. Strayer, chairman.
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*No. 16. Bibliography of medical inspection and health supervision. 15 cts.
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*No. 18. The fifteenth international congress on hygiene and demography. Fletcher B. Dresslar. 10 cts.
*No. 19. German industrial education and its lessons for the United States. Holmes Beckwith. 15 cts.
*No. 20. Illiteracy in the United States. 10 cts.
†No. 21. Monthly record of current educational publications, June, 1913.
*No. 22. Bibliography of industrial, vocational, and trade education. 10 cts.
*No. 23. The Georgia Club at the State Normal School, Athens, Ga., for the study of rural sociology. E. C. Branson. 10 cts.
*No. 24. A comparison of public education in Germany and in the United States. Georg Kerschensteiner. 5 cts.
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†No. 27. Prison schools. A. C. Hill.
*No. 28. Expressions on education by American statesmen and publicists. 5 cts.
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*No. 31. Special features in city school systems. 10 cts.
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†No. 33. Monthly record of current educational publications, September, 1913.
*No. 34. Pension systems in Great Britain. Raymond W. Sies. 10 cts.
*No. 35. A list of books suited to a high-school library. 15 cts.
*No. 36. Report on the work of the Bureau of Education for the natives of Alaska, 1911–12. 10 cts.
No. 37. Monthly record of current educational publications, October, 1913.
*No. 38. Economy of time in education. 10 cts.
No. 39. Elementary industrial school of Cleveland, Ohio. W. N. Hailmann.
*No. 40. The reorganized school playground. Henry S. Curtis. 10 cts.
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*No. 43. Agriculture and rural-life day; material for its observance. Eugene C. Brooks. 10 cts.
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*No. 46. Educational directory, 1913. 15 cts.
*No. 47. Teaching material in Government publications. F. K. Noyes. 10 cts.
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*No. 52. Sanitary schoolhouses. Legal requirements in Indiana and Ohio. 5 cts.
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No. 54. Consular reports on industrial education in Germany.
No. 55. Legislation and judicial decisions relating to education, October 1, 1909, to October 1, 1912. James C. Boykin and William R. Hood.
†No. 56. Some suggestive features of the Swiss school system. William Knox Tate.
No. 57. Elementary education in England, with special reference to London, Liverpool, and Manchester. I. L. Kandel.
No. 58. Educational system of rural Denmark. Harold W. Foght.
No. 59. Bibliography of education for 1910–11.
No. 60. Statistics of State universities and other institutions of higher education partially supported by the State, 1912–13.

1914.

*No. 1. Monthly record of current educational publications, January, 1914. 5 cts.
No. 2. Compulsory school attendance.
No. 3. Monthly record of current educational publications, February, 1914.

No. 4. The school and the start in life. Meyer Bloomfield.
No. 5. The folk high schools of Denmark. L. L. Friend.
No. 6. Kindergartens in the United States.
No. 7. Monthly record of current educational publications, March, 1914.
No. 8. The Massachusetts home-project plan of vocational agricultural education. R. W. Stimson.
No. 9. Monthly record of current educational publications, April, 1914.
No. 10. Physical growth and school progress. B. T. Baldwin. 25 cts.
No. 11. Monthly record of current educational publications, May, 1914.
No. 12. Rural schoolhouses and grounds. F. B. Dresslar.
No. 13. Present status of drawing and art in the elementary and secondary schools of the United States. Royal B. Farnum.
No. 14. Vocational guidance.
No. 15. Monthly record of current educational publications. Index.
No. 16. The tangible rewards of teaching. James C. Boykin and Roberta King.
No. 17. Sanitary survey of the schools of Orange County, Va. Roy K. Flannagan.
No. 18. The public school system of Gary, Ind. William P. Burris.
No. 19. University extension in the United States. Louis E. Reber.
No. 20. The rural school and hookworm disease. J. A. Ferrell.
No. 21. Monthly record of current educational publications, September, 1914.
No. 22. The Danish folk high schools. H. W. Foght.
No. 23. Some trade schools in Europe. Frank L. Glynn.
No. 24. Danish elementary rural schools. H. W. Foght.
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