Sunday June 2195
U.S.S. Pointe, Delta, Alaska.
About 9 A.M. take the launch for St. John's Baptist Bay about 40 miles north of Delta oppo-
site Salisbury Sound. Coal has been reported here at va-
rious times but only in float pieces. A careful examination
of the material brought down by steaming shows only granite
and metamorphic rocks and occasional bands of graphitic
slate. The latter have some
lines the look of anthracite
and are probably what has
been mistaken for coal by
inexperienced persons. Return
about 5 P.M.

Coal at N. side Yakutat Bay near
the shore seen about five feet
taken in Delta by Dr. Byrnes
Russell Camp No. 2 is at this site
of the same.
Coal at St. George, several thousand dollars spent on development by Capt. Joe Carrott and others but work ceased on account of faulty which cut off the vein.

Sunday June 9, 95

Westonakes lab on southeast und Leppkean mine. Shaft 84' deep full of water, hoist lay apparatus & small car. A few tons of coal taken out (specimen bag No. 1157) about 1 year previous to our visit—now reduced by blocking to small flakes. Appears to have been a small pocket soon exhausted down in friable sandstone and soft shale dipping about 30° NW. only a short distance from the water's edge.
Sunday June 9th — Day. A small sandstone formation was encountered by Messrs. Alexander and Taylor on their way from Salt Flats to the northeast. The formation is about 50 feet thick and consists of light-colored sandstone with a few thin shale beds. The sandstone is poorly beds and shows cross-bedding in places.

The shale beds are thin and show some cross-bedding. The formation is about 150 feet thick and consists of sandstone with a few thin shale beds. The sandstone is poorly beds and shows cross-bedding in places. The shale beds are thin and show some cross-bedding.

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with occasional lignite nodules but no well defined coal seams. The surface of the land covered with vegetation. The only opposing between the trees & low water mark.

At another point on a small islet between two arms from Favorite Bay, Mr. Bright found points out a rigor or eight inch beam of lignite much decomposed at the surface. This was traceable from low water mark to the base of the bluff. The same beam appeared much broken up washlike, and every where down, the topography apparently everywhere lies than 100 feet. The arm (30°52') in which these exposures are shown in the 2nd from the entrance, rocky and with long tides, only accessible at slack water. Alb. 30°45' W. by.
Monday June 18th 1866
At Pt. Sullivan a draft 22.5 ft. was made by McClatchy & others with poor results. The interlopers about 10 inches thick of much coarser phytoplankton existed in the draft according to McClatchy but no true species separated by about 6 & 8 inches of hard black silt to 70 ft. Silt to 80 ft. the coal laden end of this draft not due appear to have been utilized except in the bottom adjacent to the mine (14 ft. at 50-110 ft. The adjacent Bottoms about 4000 ft. in succession)
November 16th 1955

My mother Ula Louise Spreadhead/Round and my father James M. Spreadhead/Round.

They were both from the old homestead and had been married for about 30 years. I was born in 1955, the same year my parents celebrated their milestone of 30 years together.

My grandfather, Henry Round, was a skilled farmer and had a large garden where he grew vegetables and fruits. He passed away in the early 1960s, but his legacy lived on through his children and grandchildren.

My grandmother, Mary Round, was known for her baking skills and heruscituated the family with her delicious pies and cakes. She passed away in 1965, but her memory lives on through the family gatherings and holiday meals.

My mother, Ula Louise, was a hardworking woman who took care of the family and the home. She passed away in 1970, but her memory is cherished by the family.

My father, James M., was a quiet man who worked hard on the farm. He passed away in 1975, but his memory is honored through the family's commitment to the land.

Our family farm has been in the family for generations, and we are proud to carry on their legacy of hard work and dedication to the land.
Monday June 10/95

Meade of Mitchell's seams on arm of Mitchell Bay
1st tunnel, where coal was taken out for the Auginaum timbered box filled with water and cracked by land slide (specimen of coal in bag 117)
visible seam averaging about a foot, near high water mark much contorted and 150 ft west turns vertical and bifurcates, then runs out
strike SE Dip SE flat much
A second short tunnel in same
Van Coal, a short distance
jutted up the arm.
Rock hard stones chiefly, above
without fossils, below shales
with leaves, like the others.
Continuing up the arm or a small point is a tunnel
put in by Brightman, de Groff
and others for 100 ft or less
now abandoned. Seam of
Shale lignite not over 14 inches thick, in shale, on side of which is a harder bluish stone. (Specimen of coal in Fig. 11c.)

Many leaves in the shale, a few specimens (U.S.) collected. Several thousand dollars spent on this mine quite worthless.

In a small cove at the head of the left branch above is the only coal seam now worked on which Mr. McShane has done a good deal of work and taken out nearly 100 tons of coal. Dip N 25° E, strike N 40° E.

The rocks here are a low bluff of coarse sandstone under which dipping nearly at the angle of the beach.
and visible from b. w. to somewhat above high water mark about level with the surface of the beach is a seam of shale & coal (18 inches) and which has been dug out for a distance (along its face) of about 150 feet to a depth of a couple of feet on the beach and normally corrected on the land are several seams of coal separated by variously thick beds of shale & slate sandstone.

The upper (specimen of coal in bag No. 114) is the best & clearest and not over a foot thick. Coal from this seam mined in the Patterson Seam burned 18 sided tubular stoves, burned well and developed about 7/4 the heating value.
Wellington (B.C.) coal, usually used, was described by botanists. Comely coal, Below this seam is a series of small or two of shale and a large parallel seam of fragrant lignite mixed with bright coal and thin leaves of shale. This contained many particles of fossil material and impressions resembling wood fibres. Passing to the north over it the bulk of the coal and uniformity of this seam could not be distinctly defined but it appeared to include about these just with the central portion somewhat more sharply than elsewhere. Whether this mass was a local thickening of a seam elsewhere thinner or part of a uniform bed can only be determined.
Some points about the work of some of the members of the committee on the project of continuing and the next project.

The work of some about the

Some on the other hand.

by the other project.

of continuing the project.
Woods 2d. Kadakel Isd. July 11/75

On the shore of the island facing Chinika Bay there are numerous beds of blackish slate, the beds are nearly vertical and in large part coinciding with the bedding. The beds are sometimes so numerous they extend in the extent of a few rods. These slates alternate with thin sandy layers and from many places, but are faulted and broken up in a remarkable manner with numerous dykes of grayish hard diorite intruding them and often greatly crossed with small cracks which are mostly filled with quartz feldspars. Breccia are very common in these slates but careful search reveals a few 120 feet. The average strike 34° N. the dip is 10° E. The beds

...
form successive ridges between which are fresh water lakes long & narrow or escapes. The fossils (to July 16) were all found in the westernmost layers. These are somewhat less crushed than those above them and the latter become lighter colored and more gossy looking toward the top. The thickness visible above the sea is about 100 ft at the thickest section. The diorite intrusions are usually more or less transverse to the strata. I could find no bowldir on the surface but one or two scattered patches of a sandstone like that of the cliffs but of the peninsula were noticed near the high water mark on the beach. 90 late found one erratic on the Mission grounds.
As we leave Chichimek Bay and work NW through the Strait between Redak & Passage I., S. Prince I., the land mass seen to be less flat elevated, and no true levelled bench is visible on the NW I. of Redak or Passage.

**Bight W. of Cape Douglas Cooks Inlet July 21, 1875.**

This bight has a much case in 3-5 f. ms. against wind & sea except from N. & SE.

The cape is bent with rocks of the 2nd & 3rd parts of the bay appear to be land. The west coast in bold and should be kept away in entering.

The east peninsula is composed of metamictic rocks mostly horizontal and more or less water blasted with ash beds containing carbonaceous matter and boulders of plants.
They are somewhat faulted and
the streams are often stream-
ward and sometimes contain
pebbly boulders. The places are
mostly red or grained, as if
the deposit was a marsh floor.
To the south three glaciers are
visible in the range that come down
south of Cape Douglas and join only
in a stream discharging into the
bight. The entrance is in the lar-
gest. The penultimate part of the
bight is composed of a very level
layer of detritus about
40 feet thick with a talus of broken
material on the same, and indications
of kept beds beneath. The top
of this bed has been moderately
glaciated (as also the eastern part
toward) and shows a fat outline.
The agency might have been an
extension of the glacier whose stream
now discharges into the bight as
the grounding point towards it.
The bight is a great deal de-
composed on the surface, but the glacelation was rather a smoothing off than snowly.
Leaving the Cape and making a course NW by W for August
ton. It the back or northern side of the Douglas massif is well seen, snow-covered and
with three very large snowy glaciers descending to the
vicinity of the sea. That to the east appears to be the
largest and showed an ever
snowy surface without last
real snows. Northwest of
the group of mountains is a
space of comparative low land
behind the shoal Kuskokwim
Bay. The embay are reported
plentiful.
On the way to Auguston 30, and
6 or 8 miles from it are the dead
crater rocks (——) which are said to be SE way from
the peak of Auguston. We saw
Then in me with a high bluff on east side of inlet 2 portable Pts. beds bearing N.E. by E. While the peaks bore from us N.W., S.W.

mag. latitude. They bore N. 50° E. and the peak N. 60° W. At low water there were two low flat rocks and a smaller point or
tittle two miles off. They are said to be a rock at ½ tide.

July 22nd 1595
Augustin Jd. - Velcas.

Anchored in 3½ fms. sand with the S. Pt. bearing S.E. by S. the

west Pt. W.W. the peak N.E. by E.

about a mile from the beach. The S. pt. is saucy and low but

the boat landing is best here;

the beach running off very soon

north of it. The west point is

composed of ashes and volcanic

stones forming low bluff lands
and running off in flake upon which the boulders, sometimes very large, are irregularly scattered. This was formerly an excellent harbor for small craft here, and the inner harbor still exists, but the entrance is now dry at low water. This change was brought about in the last eruption (about 1883) and that it was due to an elevation of the bottom and not to filling up by the fall of ejected material is evident from the presence of a number of more or less stunted spruce trees near the shore which are evidently older than the eruption and would have been killed by the fall of material sufficient to choke the harbor.

The peak has the regular conic form, the apex being broken away to the west and...
About 5 P.M. leave anchorage and start northward for Chilkoot anchorage.

July 23rd, 1895. About six A.M. run into Chilkoot Harbor and anchor under the island there. Baree Highlands Light at anchor, waiting for salmon from Kussleff canneries. We aboard and consult captain Hughes about the locality. He is anchored in 16 fathoms. Spring tide in June was 56 ft. about 24 ft. of ordinary tides. Go to Point at N.W. head of Borth entrance. Bloated by foul stream about 5 ft. high. Reddish just off. Smaller yellowish sandbars. Combe quantitatively about 15 ft. then dark open to pole limed sled. Successor than lead 2, lowest is a light gray barren shale. The Chilkoot is rather plentifully supplied with fossils (2.78).
of Cretaceous age. Impressions
in the mud common. Brachiopods,
Ammonites, Fragments of a coral,
and other organs are sometimes
remains of a coral. In some
of the layers near the beach one
found white pebbles containing
the same fossils as the matrix.
These strata are moderately in
clined (due to eolian
and the beach is largely composed
of wind-blown material) back
above some of them which
run out at low water, a long
distance. The NW head of the en-
tance shows blocks of sandstone
and conglomerate contain-
ing rolled pebbles, while pef-
blasts in the matrix containing the
same fossils. These blocks are
much higher than those on
the mainland side and above
the NE end of Island St. rises
to a magnificent castellated
summit of massively eroded...
...The strata gradually steepen to the SE end with the slight dip of the gently curves strata. Just at the extreme end of the strata the beds are for a short distance more steeply inclined. The weathering is one or less rectangular giving candle like forms and near the beach worn out by the sea into caves and natural arches. The cliffs on the mainland side appear? similar and also rise very high and continue high past the SE entrance. Off the SE end there were no visible rocks or breakers and we were informed there is no bar but a clear channel in but in entering and leaving a well
The marked tide rip was encountered both times, which might lead to the suggestion that obstructions exist. On the island side the water is held in the main shallows near the head of the harbor for a long distance from the beach. There seemed to be no hidden dangers and the holding ground is good. The wind is often stronger inside the harbor than out in the inlet at the same time; even the high land and funnel-shaped valleys. The harbor opens to the SE but the entrance is so narro, and the channel so long that the winds probably do not blow home with severity enough to endanger vessels at anchor. Here is probably a narrow channel out at the W end of the harbor but the ground is too foul to render any attempt to enter advisable.
An extract to a survey.
Left the harbor about 5 P.M. and started a little before the flood tide for West and North Foreland. P.V. foggy with a fresh breeze out tendency to sea. Touch the shore east of Ralphine 2d while at supper, but with no bad results.

July 24/95. Anchor off West Foreland about 4 P.M. to wait for the flood tide. A small village of Rostien Situado near some of them come off the ship. Bluffs about 50 ft. high of gravel and sand, wooded above with some high mountains in the interior. Leave at the slack about 10 A.M. for North Foreland. This is a wide bay between the two with deep water and good grounds in many of it. The land behind it is partly very low, all wooded and a little
session is a flat or shoal not
drawn on the charts and of
considerable extent, forming
a serious danger. Here it
is nearer Pt. Campbell and
more southerly than on the
chart and there is no channel
direct off it between it and
the point shown. The shoal
in Furnagain Bay is more
drawn on the chart or the
chart. There is an inlet near
the point east of Pt. Poresson
north of which anchorage may
be had. East of this, the Bay
is almost dry at low water.
Around the N. England to the
north and about two miles
distant is Ladd's fishing
landing point. Anchored here
about 4 P.M. and landed
The water has 3½ fms half a
mile off the head at 3½
feet. Rites 25 to 35 ft.
The formation is gravel.
a small river coming in. The promontory is low here for a short distance, with landfalls on either side. About N. magnetic is seen Tshihita Na, a high peak near the Beshita Na River, the land on both sides of Turnagain Arm as seen from here is high & mountainous. Anchor here for the next flood tide.

July 25 93-
Leave about 2 A.M., with mines boat in tow. Thick foggy, come off the 2d about 4 A.M. and land over to Mt. Spennevelson, then along the shore at 2 miles distance to a small rocky point with a bump at the end, woods, and with a small flat rock off its end. Anchor here for 3 P.M. Less one boat at high until about 8 A.M. The point shows the strength of the ebb a little earlier.
of the anchoring place, hence by the azimuth compass Pt. Campbell will bear West of the edge of Pt. Possession WNW, the SW edge of the island by W, and the small rocky point East a cable and a half by compass.

Pt. Possession is long, low, wooded with small bluffs at the shore; Pt. Campbell is similar.

At the bottom of the light east of Pt. Possession which is short, the land rises to 5000 ft. mountains (and also the opposite shore), both are rocky and come down to the water in rocky bluffs with no beach at high water. Off the high land in the south there is a small diamond shaped low island around which the boats float dry at low water. It is called Haystack by the maims. At the anchorage the following readings were taken of the sonar by patent log from the vessel.
215 Old Mill Campground 1926

2:30 Studying for test
3:30 B.L. & T. H. leave
4:30 Study for test
5:45 P.M. Communal hour
6:30 Last hour of work
7:00 P.M. Dinner
8:00 P.M. Study for test
9:00 P.M. Communal hour
10:00 P.M. Bedtime

Note: Study the number three hour of the P.M. Study for test.
July 27, 1857

1 Pac. Mining & Transportation Co.
2 Jas. Rosenthal & Z. Montgomery (1.5%),
3 agent in San Francisco.

The explorations begin in 1894 sec,
4 near Eastland Creek, Rachefkina.

In the course of the year and
6 thereafter, various attempts to
7 establish a camp on the place
8 and to mine ore were made. The
9 exploring parties, however, did not
10 succeed during the season.

Specimen (218) was seen in place
11 in the vein, weighing 13 oz. on the
12 table.

Specimen (219) was seen in place
13 with bag 13 3/4 oz. (5 4/3)

Specimen (220) was seen in place
14 with bag 13 3/4 oz. (5 4/3)

A description of the mine, which
15 contains a large water
16 pond, few boulders, shale and
17 lignite. The upper part was
18 covered by some 10 ft. of
19 clean gravel. Bluffs 200-300
20 feet rising behind 1000 ft.
Mr. Curtis is employing only a few men and the work he is doing is of the nature of exploration. The development of the property will depend on the results of the experiments with the coal. The Alaska Coal Co., which owns all the other claims within the spit on the bay, they have put in two tunnels which have reported caves in and the station is not now occupied. A Mr. Cooper, living at Ninilchik, is the agent but only occasionally visits the buildings. Here the Central Pacific Co. sent out an expedition under Lieut. Schurerin, U.S.A. to explore the coal for locomotive purposes in 1891. But did not find it at all suitable for such use. The coal was taken from Meriel canyon. Next to the Colonnade, next below Eastside.
The coal does not want to be too frequently stirred in firing, has little smoke and light ash.

Pull up a little southerly of Mr. Neil Cameron and examine a seam of coal that which has been prospected with two short tunnels by Mr. Curtis. One seam about 45 ft. above the beach is 4 ft. inches thick, clear coal with about six inches clay over claystone above and a thick gray clay below. Above this are three seams separated by thick beds of clay or claystone, the whole between is nearly four feet. The other tunnel, the coal fairly compact with a dull finish, occasional thin lenses of sand or shale and a tendency to breaking cubically along side the Mercer oil might.
which the Alaska Coal Co.
entry was founded, and a tun
nel (now covered by cover by
Mr. Breckley) there are several
seams close to one another, of
which the lower is the thickly
and better coal and about
18 in thick. This is nearly
the lowest seam in the
200 ft series visible above
tide marks and is more
compact, glossy in fracture
and disposed to break out in
the same manner of the
bay and higher in the
series. (Specimen Fig. No. 13.)
Buy a fresh supply from the
mate of the Mariner for Mr.
Merritt and Mr. J. A.
About 34 P.M. took the head
back to the Mariner at her
broth. At 10 P.M. left for
Seldovia Harbor arriving at
11 a.m. 19th,
Wednesday July 31, 35
Morning cold, gauzy, lattice cloud, no ash or dust. Intervene, Black A, C, C, and Smith (Red C, C) take or come with us. Examine the rocks which are schistose and much contorted. In some of the gaps between the projecting points NW and SE of the harbor are pitches of slate appear to be the same beds which we nearly horizontally abutting each other. From the entrance to the harbor shows a dark streak like coal. Above the harbor a coal seam is reported about five inches thick and a piece of coal supposed to be from this seam picked up on the beach is compact, glossy, breaks coarsely, dull, 1.5") the bluff at SE head of the
The harbor is composed of two small rocky bluffs united by a low spit and a continuously high as in the chart. The entrance has rocky bottom close across with keep in 5 fathoms most of it is bush bed. There is a rounded boulder off the NW small whitish bluff pl. visible at low water. There are also rocks above & below water around the S.E. head, inside these are 7 1 fathoms, water sandy bottom off the village in sound harbor. Protection in the outer harbor from all but NW winds and at the head of the bay from all, said about dozen for Takali Ed. Pitch off Shaly weather current with light airs.
Thursday Oct. 1, 1893
Ranch Amalik 1 mile behind Shackle ro about 5.30 A.M. All the rocks are well sheltered from all winds, and range in 10 fms. sound.

The rocks are chiefly coarse sandstone (Dry Creek) resting conformably on an underlying greywacke and containing quartzite pebbles. Thickness about 253 ft. or more. Shades of brown and black, draws in layer fine bed rock or more. Almost three quarters about 75 on edge stuck of impure sand. Which about 6 inches are pure coarse. A glossy texture, tough, the hunts up to 7 or 8.

Blacksmith went to town Thursday morning. These beds are broken off by a granite...
due west we pass to the east and where probably once covered by a more recent forest which leaves the slope of the adjacent hills bare and looks as if the forest had been cleared away. The same scene of a forested hillside, but bare in places, is seen in the distance. The trees are mostly pine and fir and the ground is rocky and covered with moss and other vegetation.

We found the water for Cold Bay about 11:30 and sailed before an ice forming. The ice was seen extending nearly halfway across the entrance to the bay, which had been clear of ice yesterday. The northern most cove was covered with

...
up in the N.E. part of the bay about 10 M. to ashore and look at the rocks which are very peculiar.

They comprise chiefly calcareous sandstones or sandy limestones containing numerous related concen
trically nodules and some pebbles. (43)

Fossil wood SW head of harbor
(Specimen No. 157)

Invertebrate fossils from first bench of mountain west of stream near anchorage
N.E. side Cold Bay (Bay No. 149 & 148)

Invertebrate fossils from about middle of rocks at high water mark West of stream to

Fossil wood N.E. Head of
bay (Bay No. 148 & 149) Protection
Fossil wood from W. shore
at I (Bay 143) tall
Vegetable impressions from slates below conglomerate below granite N.W. plot of harbor Cold Bay. (fig. 142)
Sandstone from above eruptive discord. Inghill Sd. Harbor. (fig. 146)

In this limestone we found a small seam of carbonaceous shale with occasional thin laminae of coal. The shale only a few inches thick. Above the limestone was a moderate thickness of crumbling shale without fossils much more cracked. In chalk streaks. The limestones were impressions of reed-like plants. Like those seen at Cape Douglas, NW of these low cliffs, which rise behind the squawish hill. The beds descend gradually toward a small stream off which we anchored. Were a considerable
West of the stream the limestones and shales are again seen, forming a low arch, westward from which they are surmounted by a regular series of beds which have a purplish or reddish-gray tint from a distance and being of varying hard ness rise in a series of terraces to a summit about 2000 ft high. The harder beds are limestone, without fossils, the softer mes a limestone, which crumbles into small angular fragments making long uniform talus slopes. The limestones contain many mostly lenticular or ophicordal white and black carbonaceous which affect per
ticular horizons more than others, there are also thin variable beds of conglomerate. About the middle of the series, N.W. from the anchorage was a bed of conglomerate of small rounded pebbles in a limestone matrix, which also contained fragments of organic remains, among which were Ammonites, Belemnites, Ostracods and the like.

At the outlet of the first high reach of the entire mountain stream, dipping 30° N.W., Darwin found Ammonites, a brachiopod like Phyllophora, Belemnites and a bivalve or two. The dip of the strata because were steep near the valley of the stream. On the shady sides of the limestone...
found pieces of fossil and also carbonized wood and obscure shales or osteo-like impressions of plants.

Late in the morning we crossed to the Light of the NE part of the harbor at the head of which is a flat with a large lagoon bordered by woods which a stream runs, ascends to a gully of extreme in the rocks joints bluish, shales and limestones like those of the eastern side of the bay. Well up I found a calcareous shale with a few plant impressions above which was a heavy bed of conglomerate above which was a hard perhaps andesitic volcanic rock which from fragments fallen from above seem to be above coarse grained and gritty higher up.
bed of this rock seemed to lie conformably on the other rocks. The southern end of the point was relatively low and the beds very massive and horizontal, a fault concealed by a scree at the junction, probably separates these beds from those to the north of them which dips more steeply to the northward. The face of the cliff much eroded into cirques gave also rocky to the thousands of seashells, mostly sead and gulls. On the limestone near the point fossil wood and numerous beds were found, the latter often car-
we searched in vain for
the ammonites mentioned
by Fisher. The rocks were
the same as those de-
scribed for the NE part of
the bay and the only fossil
forms were scattered wood
and obscure plant remains
and fossil seeds. The bed con-
taining the ammonites
may exist here about but
at all events is not con-
spicuous. Rained most of
the P.M. with fresh winds,
from the eastward. Laid
anchor and return to anchorage
Aug. 3. 1895

Levee about 3 A.M. for
Hialeah inlet. Bay North Fair
Fresh breezes. Arrive about
10:30. A hidersha killed by
us pilots us behind the island
about 11. A.d. all, north
east of this one, which carry
in John the portage to Ugabik
Aug. 3, 1875, Kachemak Bay, Alaska.—— Specimens from locality near Ugashik port, in bags 1, 2, 5, 21, 21, 21, 216, 21, 21, 22, 223.

The banks is less than 100 ft. high and mostly grassy. Some small exposures of sandstone and coarse shale afford plants of augenitic and other metamorphic rock. The charts of this vicinity are poor. The bay leading to the Betcheroff village is clear except near the point. Entrance near the point. The ground extends well off. The upper part of the bay is shoal. Near a couple of miles off the beach there is no conspicuous mountain recognizable as the one on the chart near the village. The mountains appear to
the front of rocks similar to those near Cord Bay. The entrance to the inner bay is rather close to the outer inlet with 2 or 3 feet over a bar, within of plenty of water. One bay there is a second entrance west of the first branch of inlets with deep water in it. There are various rocks in this but no hidden dangers. Mt. Blair is at the head of the bay out as on the north, north of it. There is a large glacier on its foot and on the eastern face two others descend from the same mass. Leave the bay about 11:30 for Clignik Bay where we arrive next morning.
Sunday May 4/95

Took fare with excursion boat. Allve in Chignik Bay about 6 a.m. and enter the bay near and run up to the canyon which is on the SW side of the bay. 2 fms least water on the bar and 22 ft at high water. Within the channel is moderate grade, 2-3 fms water, banks bottom up to the canyon, beyond which it shoals.

Capt. Miller & Capt. Smith of the canneries come aboard. We go ashore and inspect the canneries, dine with Mr. Wm. Smith and about 1:30 go on a small chart ahead up to the head of the bay and about 1 mile up the river to the coal mine. The river is not very deep and runs between perpendicular and high banks of rocky walls to
a lake 2-3 miles further up which is 5-6 miles long then connects by 5-6 mile drive with another lake said to be as long as the first.

The coal was discovered by one Henderson about 1885 but he did not maintain his rights against Mr. Robert Lee who did some explorations during seven years and took out several hundred tons of coal. He sold his rights to the Alaska Packers Company in 1895 and they proceeded 1912 to develop the mine in a more systematic fashion using the coal for the canning industry. During the summer three men are employed who take out about two and a half tons per day of a coal of $3.00 per ton. About 350 tons a year or 150 tons in all have been mined here.
During the winter two men are employed underground at the rate of 25$1/2$ an hour, working by machinor as little as they please. There is no machinery and the work is done by blasting the rock & coral compact in which it occurs. There are two tunnels about 45 ft. apart, 20 ft. high and 240 feet long. The only timbers are uprights which have been put in to support the roof, which is good but shows signs of weakness in spots. The upper tunnel has been filled to a width of 40 ft. in some places with a single cross cut to the lower tunnel. The strata Dip 90° 21½° E and the strike N. 15°-20° W. The bedding is very regular in the whole with a few small
ships. The coal consists of
of seam about 16 inches
in average thickness, of
which one inch is a strata
of sandstone or less
regular. Above this 11 inches
above are about six inches
of coal, about two feet
below is another small
seam 6-8 inches in thick-
ness, very adhesive to the
roof, which is of a firm
sandstone.

Here are fern-forest, all
stems or reeds with an excep-
tional leaf, figuring in the
notices among them (fig. 144).
The coal is solid, bright,
clean, with little visible
shale and no sulphur
fig. 141). Experiments in
burning at the cannonery
give as a result 115 lbs.
equal 107 lbs. Wellington
coal. It does not chalk.
The ash is granular and of a reddish grey. The coal gives little smoke and is of satisfactory stoniness. The vein comes to the surface about half higher than the upper tunnel in a ravine and has been traced沿着 more than half a mile.

Leave Chignik Lagoon about 5 P.M. for the shumagins with a quiet and cloudty sky. The sandy beds of the west side of the bay appear gently wave and are horizontal and flat against the mountain rocks apparently even.

Gently.
Monday Aug 3rd -

Morning, ste. Cap. Peary

an off about 4. all day

ste. with moderate

sea. the head wind. sail 3rd

of rosean and anchor at

Sand Point off the building

about 2 P.M. to adore for

news it paid every body fine

to be on this bark. the steamer Portland has just arrived with goods from New-

Arms. Steamed down there &

anchored in the outer harbor by 6.30 P.M. After dinner

go ashore and see Thomas the

depot collector. Dr. Call and

the cashier. Hobbled Mr. Bagley

and others and got some late

papers. Then aboard for the

night, a 50 storm setting in

Tuesday Aug 4th

Morning sunny. Lettering. To

adore after breakfast and
walk up to the Phelps Consolidated Mine about three miles where we meet Capt. Magie. BTQ, prove the mine and I go round and see the works under guidance of Mr. Barlow. Take lunch with them, have a shoot with the 30-30. We can't return by the launch about 4 P.M. in a stormy and rainy day. Another trip inside the Inner Harbor for better protection. Night blows hard in squalls with hard rain.

Wednesday Night

Morning wind still fresh but a little more to the westward so the crew goes again to the mine. I remain on board to write up notes to The book off entrance to Phelps. Told for the Sr Cap. 2 3/4 by compass from The Middle Passage at 15.95. The crew return with wet coats.
May 6, Thursday

The weather was fine and favorable. The middle Channel was clear of ice, E by S. 4° S. North Head nearly W. N. Head E by S. E. East by N. S. By S. E. Being out we find the breakers in line with the break of the point on the south side of the entrance. The party return about 4 P.M. and we sail for Coal Harbor, anchoring on the lee of the island about 7.30. Messrs. Allen, Holley, J. D. Nelson and myself.

May 7, Thursday

Morning is adverse weather. The weather was fine and favorable. The middle Channel was clear of ice, E by S. 4° S. North Head nearly W. N. Head E by S. E. East by N. S. By S. E. Being out we find the breakers in line with the break of the point on the south side of the entrance. The party return about 4 P.M. and we sail for Coal Harbor, anchoring on the lee of the island about 7.30. Messrs. Allen, Holley, J. D. Nelson and myself.
The main coal seam had (Bag 131 coal from lower bed of Zachovskaya Bay. Bag 143 coal from layer one 131.) an initial seam of dull coal, fairly free from slate, about this half a dozen small teams of 4-5 inches thick of impure coal, partly brilliant and partly dull. The fissures much scattered by non-coal and with many thin sandy or shaly laminae. In split iron pyrites is very abundant. These seams are separated by wider bands of quartzodens, aluminous shale or gray sandy layers.

The thickness from which this coal was obtained is about six feet by eight to ten and runs in about 18 ft. 4
seemed about 200 ft above the bay. 100 ft higher was a tunnel, of about the same size, partly timbered with wood, passing and with the coal in very numerous small seams, varying from 
inch to 2 inches in thickness. A carbonaceous slate intermixed the whole of the rock, of a very poor quality, to be of any importance. As that the tunnel had not been worked in late the spring where these openings have been made is more to the southward than that the old diggings of 1866-72 seem to have been made to work or visit the volcanic rocks at the NW end of Boffo. This time some down the Red Creek and examine the rocks. Then back to Sand Point where we lie up at the Wharf.
and last we talked about #308. He had pencil marks and the price was 3.00. Before he can give us all the things later for pictures.

I made pencil marks how much the price was. Before he can give us all the things later for pictures.

He made pencil marks how much the price was. Before he can give us all the things later for pictures.
swell and tide caps in Melan pass used arrive at 9th

back about 6 PM. To action

are cordially seed by Mr. Baldwin & Capt. Nice. To aboard the cutter Rush & per Capt. Harper who wishes to withdraw his offer of a cutter to Newstead Bay, as one of his vessels has been detained at Lasta. Mr. Baker decides to give up that trip and go to 4 P.M. on the 8th. The which is expected here in about a week. Return to the shore and sleep at the

house.

Sunday May 15th

Morning calm, cloudly, the

can trying to set out. Write
letters and send up notes.
Canal Nursery earl

Jan 11
From anchorage
S. 1/4 S. 65° 45' E.
1. Edge Bogoslof S 3° 45' E.
W. 4° 6' E.
2. Grewingk W 3° 45' N.
W. 4° 6' N.
N. Peak Bogoslof 1/4 the length high.
Middle peaker little higher.
Highest part of Grewingk a little
more than 1/4 total length.

Bogoslof and Grewingk vol.
caines 8 May 13/93.
Aug. 13, 1895—off Bognoroff to Greymouth.

Sailed around the islets keeping the distances & taking the bearings.
Bognoroff bearing South, the log reads 0.2 miles.
The two islets on one South 85° East, log 0.93 miles.
Off middle N.E. end of Greymouth, log reads 1 mile.
Bognoroff comes out west of Greymouth, west edge 5.55 miles.
Log reads 1.38 miles.
Bognoroff leaves Greymouth & log reads 1.85 miles.
North edge of Greymouth bearing N.E., log reads 1.5 miles.
South edge of Greymouth bearing N.E. log reads 2 miles.
North edge of Bognoroff bearing N.E., log reads 2.8 miles.
South hills N.E., log reads 3.25.
East edge of Greymouth in one with
West edge Bogoshoff Log reads 3.65 whole island curve 2.675
East edge Bogoshoff and East edge Bogoshoff in oil Log reads 2.75 miles

Bogoshoff is wedge like
Grenville's flat topped with
a little stream, from squared
with three short northerly
projections.
The spit projects past
Bogoshoff and curves to
the eastward under water
Thus appears to be a channel
between the two. Anchor in
seven fathoms east of the spit
Aug 15, shells like Spinius
from Cape Thompson, SE
Alaska, Cal. Coast, &c.
also meteoric stones from
Hatteras, North and Weisbar
from Kingp, 26. Fischer-
Ammonite in U. C. C. museum
from Sullivan, 7d.

November Bay Coal A Co.
bag 27

176 Coal, existe in clay bank
at the beach near Petock, 7d
specimen obtained by Dr. B.
July 16/95
North Pacific Mining & Smelting Co. Capitol $300,000 $120,000
Incorporated, Portland, Ore.

R. H. Bradley, Vice Pres.

Organized Oct. 1895, under the laws of Calif., commenced opera-
tions immediately.

Disbursed from Eastland

Expenditure of $491,500

E.W. Wood testing coal for Co.

V. D. French & Co. Borden

Bore 800 feet deep in the

Blackbutte, Bay coal

and report showing coal

steaming coal. Whistler.
good fire was kept up. They used 1600 lbs. in a given time during which they would have used 2200 lbs. of Comox coal, with a low fire and small pressure of steam. The amount used was 2240 lbs. of Comox.