The Klondike

Dawson Daily
Souvenir,
July, 1905

WELCOME TO AMERICAN INSTITUTE OF MINING ENGINEERS.

It is not every day that the Klondike is visited by so distinguished a body as the American Institute of Mining Engineers. This little volume of illustrated information is a welcoming gift to our visitors by the Dawson Daily and Weekly News. The marvelous and unique scenes illustrated and described herein can hardly be more surprising to the visitor than the character of this work, done in the most northerly of cities within the British Empire. The illustrations and topography will call vividly to mind that this isolated and strange sub-Arctic region is yet supplied with many of the most modern acquirements of civilization, for this littlework means electricity in common use; photography and photo-gravure; modern Mergenthaler typesetting machinery and presses of equal merit. In short, this little work, made in Dawson, will by its pictures illustrate how we live, and by its workmanship illustrate one way in which life in the North is made bearable—by the aid of a modern journal daily reporting the doings of the world in as complete and modern a printing office as will be found in the large cities of the world.

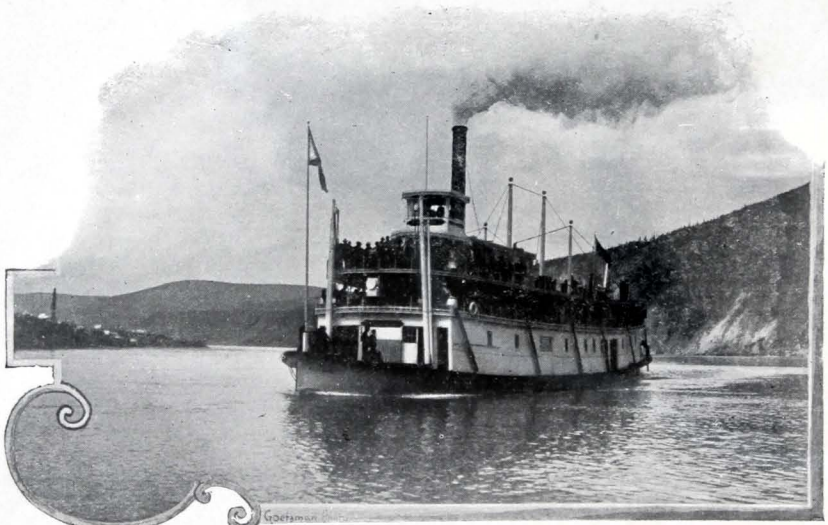
The importance of the occasion must be the warrant of the News for the preparation of this little booklet for presentation as a souvenir to our distinguished visitors. A spirit of enterprise which will bring a sightseeing body of people so far, over mountain and vale, river and sea, warrants a like enterprise on the part of the News. Such visitors are surely entitled to the best, and only the News, of all Dawson offices, can issue a booklet of fitting breadth and workmanship.

A work of love, executed at the briefest notice, this souvenir, "The Klondike," is our testimonial of the open welcome which is yours at every hand. It brings with it the News' appreciation of your visit. It is intended to save you much notation of important facts in memorandum books, and some selection of interesting and characteristic views. It is not by any means complete or exhaustive, but such as it is, it is reliable, even if brief; readable, even if printed a few miles south of the Arctic Circle. It is offered for your acceptance in the hope that it is of sufficient merit to warrant you all in carrying it home as a souvenir of warm hearts, even if it be of a cold country.

Note.—The gold in the gold pan on the cover page is from Discovery claim, Bonanza, the claim on which the gold was found that started the Klondike rush. Mr. J. Moore Elmer, manager of the property, kindly furnished the gold for this purpose.

DAWSON DAILY AND WEEKLY NEWS.

Yukon
Has Produced
$107,000,000 in Gold.



Arrival
of
A. I. M. E.

The Klondike

THE YUKON RECEPTION ASSOCIATION.

OFFICERS :

HON. W. W. B. McINNES, Commissioner of Yukon Territory ..... Honorary President
MAJOR Z. T. WOOD, Assistant Commissioner R. N. W. M. Police ..... Honorary President
J. B. TYRRELL, Esq., M. E., F. G. S. ..... President
J. MOORE ELMER, Esq., M. E. ..... Vice-President
GEORGE BLACK, Esq., M. Y. C. ..... Hon. Secretary

RECEPTION COMMITTEE :

HON. MR. JUSTICE DUGAS,
HON. MR. JUSTICE MACAULAY,
Members of the Yukon Council,

HON. MR. JUSTICE CRAIG,
ALFRED THOMPSON, Esq., M. D., M. P.
Citizens of Yukon.

PROGRAMME COMMITTEE :

Chairman, D. A. CAMERON, Esq., Manager Canadian Bank of Commerce.

EXECUTIVE COMMITTEE :

Chairman, E. W. GRIFFIN, Esq., Manager North American Trading and Transportation Co.

Yukon
Will Produce
$1,000,000,000.

HEREWITH, in presenting the features of Yukon that will most appeal to the distinguished visitors whose coming makes occasion for this publication, it is in order to briefly give something of the history of this, one of the richest sections under the British flag. That a complete and comprehensive history of the Golden North could not be given here is easily understood. The Yukon basin has been known for many years to contain rich deposits of placer gold, but the first gold was obtained by prospectors in 1878 from the bars on the Lewes and Stewart Rivers. In 1886 coarse gold was found along the Fortymile River, at a point about sixty miles from the present City of Dawson, and a camp was then established at the confluence of the Yukon and Fortymile Rivers, that camp remaining to this day a prosperous one, and marking the northern boundary town of His Majesty's possessions along the mighty Yukon. The late Dr. Dawson placed the gold output of the Fortymile country in those days at $150,000 annually. Gold was first discovered in the now world-famous Klondike (which, bear in mind, is all in Yukon, Canada,) in 1896. The discovery that started the memorable rush to this section was that made by George Carmack on Discovery claim, Bonanza Creek, Yukon. The news of the discovery stampeded the Fortymile country, and before the outside world learned of the discovery the old timers in the North had a year at the diggings. In 1897 the rush from the outside commenced, and its incidents are fully known to all. By the spring of 1898 Dawson had reached a population of 30,000 hardy goldseekers, most of whom came here over the White Pass or Chilkoot trails from Skagway, enduring hardships they would have suffered in no other pilgrimage than one in search of gold. But the gold was here in abundance, and each day saw the facilities of access to and egress from

The
Klondike is All
In Yukon Ty.

Our Friend in
Summer, Horse
In Winter.

Dawson made more easy and comfortable for the goldseeker until today the Mining Engineers who are honoring our camp can appreciate the ultimate improvement, as found in their travels o'er rail and on river in their pilgrimage to Yukon. And, here, instead of the crude camp of tents and shacks that grew out of the early rush, our visitors find a well-built city, with all modern improvements, its own water and lighting systems, perfect transportation facilities, telephones, telegraphs, churches and everything that one could ask to make life in this remote region pleasant for the hardy races that people it and quicken into life all its dormant values.

GOLD-BEARING GRAVEL. The country in every direction is highly mineralized and colors can be raised in almost any gravel back in the valley of the Yukon and its tributaries. The chief deposits at present known are the Hillsides and Benches on Bonanza, Hunker, Dominion, Klondike, Eldorado, Stewart, Pelly, McMillan, and their tributaries. The following is taken from the report of Mr. R. G. McConnell of the Geological Survey Department of Canada, now in Dawson:

The white channel gravels have a total volume on Bonanza Creek and its tributaries of approximately 250,000,000 cubic yards, and on Hunker Creek and its tributaries of 200,000,000 cubic yards. They are everywhere more or less auriferous, and sufficient work has already been done to prove that a large proportion, at least, of the whole deposit would pay to hydraulic if water could be obtained at reasonable rates.

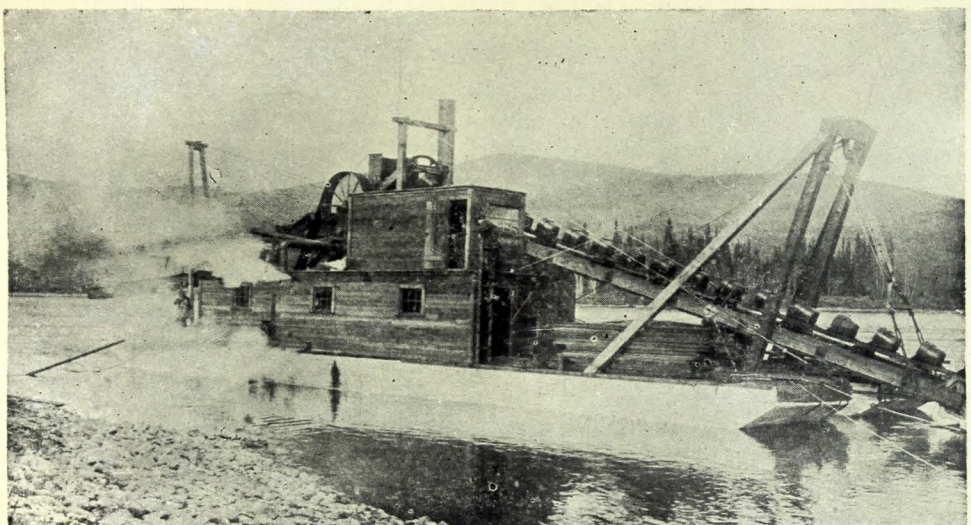
The present price of water delivered on the hills is $7 per sluicehead per hour on Lovett gulch, and $8 to $9 further up the valley, and even at those rates some work is possible. These gravels are very favorably situated for hydraulicking, as they rest on comparatively narrow benches, cut into the sides of the valley, at elevations of from 150 to 300 feet above the present valley bottom.

Yukon Territory is
All
In Canada.

The Hand that
Rocks the Rocker
Gets the Gold.

THE GOLD MINING IN YUKON. The pioneer miners of the Klondike mined under many and strong disadvantages, but be it said to Dame Fortune's credit, their returns were in many cases fully great enough to compensate. The wood fire maintained in the shafts at night thawed the frozen ground for removal next morning, and the same system of sluiceboxes and waterways now most in evidence here snatched from the long-hidden gravels their concealed golden grains. All over Yukon the expensive but effective old-time system of mining will be noticed by our visitors on their tour of the creeks, save that the wood fire has been replaced with steam thawers, and it is therefore unnecessary to dilate upon the old system. What is newest to us, and that which we look to to revolutionize this camp and quicken its life-blood into something of the frenzied movement of the rush days, is the newer and larger plants and mining systems of the larger companies, and it is with them that this book will treat mostly.

Because of the cost of supplies landed in Dawson, the expense of mining is excessive. Vast deposits of gold-bearing gravel that would be considered an Eldorado of fabulous richness elsewhere cannot be handled here to a profit except by the reduction of the cost of mining over what it has been in the past. The individual miner has in many cases been compelled to release ground that was reasonably rich but that with his limited facilities he could not make pay a profit, and from the accumulation of such properties, and by purchasing the holdings of speculative concessionaires who were the first terrible menace that confronted the camp, strong mining companies have attained mining areas upon which they are spending fortunes on machinery preparatory to developing their holdings, and it is of some of these greater plants that we would speak.



Where the Gold
Comes
In Scoops.

THE PACIFIC COAST MINING CO.

(By E. E. Andrews.)

The Pacific Coast Mining Company's plant and property are located at Nos. 6 and 7 below, Bonanza Creek. The pumping plant consists of the following machinery:

Boilers—Two batteries of two each, water-tubed, tested at 225 pounds running pressure; total, 528 horsepower. Stack, 54 inches by 125 feet. (Cahall, built by Aukman, Taylor & Co., Mansfield, Ohio.)

Engines—One cross-compound high duty, fly wheel, coreless valve, 22x44 cylinders (36) stroke (13) plungers, pumping engine. Direct connected jet condensing boiler feed attachment. Capacity, 3,000 U. S. gallons per minute at 37 revolutions to a head of 300 to 400 feet. Built by Snow Steam Pump Works, Buffalo, N. Y.

Smaller machinery—One compound duplex double-acting independent jet condensing pumping engine. Capacity, 1,500 gallons per minute. One Barnes drill press, one pipe cutting machine, 8 inches and down; one shaper, one emery stone, one Lodge & Shipley lathe (36-in. sweep and 10 ft. centers); taper attachments; one 20 horsepower upright shop engine; one direct connected general electric plant (150 lights), etc.

Points of interest about the plant—The large engine weighs 228,000 pounds, three of the pieces weighing over 24,000 pounds each. It required 50 tons of cement for the foundation. There are 384 four-inch valves giving it a large area. Made special by the Snow Steam Pump Works for this country and particular attention was paid to the fact that the water to be pumped carried a large percentage of sediment. It cost over $120,000 for the plant and installation. The pumps

The Slow But
Sure
Way.

were started in the month of September, 1903, and have given complete satisfaction in every way.

Cost of pumping water, etc.—Labor, (one month) $2,200; fuel, $2,600; supplies, etc., $600. Figuring 25 running days to the month makes an average of $216 per day. Number of gallons pumped, 3,000, (miners' inches, 270). Cost per day for one sluicehead of water (60 inches), $48.

Cost of hydraulicking, etc.—The efficiency of one miner's inch of water from the middle of June to first of September is eight cubic yards. This high duty per miner's inch is due to the fact that the gravel rests on an even bedrock high above the present creek level, thus giving plenty of grade for hydraulicking purposes, and that the shape of the gravel being such that it washes readily. Then the ground is well thawed at this time of the year, which makes a big difference in the daily output.

Cubic yards washed per day, 2,160; cost of pumping, per day, $216; cost of hydraulicking, general expense, etc., $200; cost of handling one cubic yard, about 20 cents.

The company has over 1,500,000 cubic yards of gravel which will pay to work by hydraulicking. We are working our deep gravel claims by tunnels, shafts and drifts. We are operating on the different faces on Cheechaco Hill with gravity water this spring and expect to start the pumps the latter part of June and run continuously until it freezes.

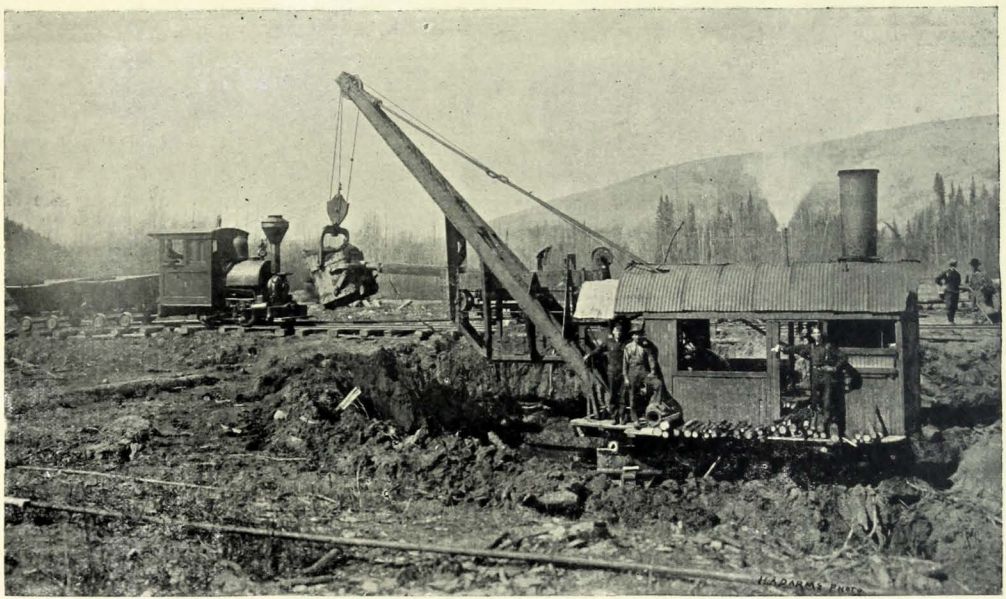
* * *

THE WHITE CHANNEL GOLD HILL HYDRAULICS, LTD.

(By Edward Simpson, Manager.)

Twelve and one-half miles distant, accessible by stage in two hours from Dawson, the property of the White Channel Gold Hill Hydraulics, Limited, is situated on Gold Hill, at the confluence of

Next Month You
Could Ride on Our
Choo-Choo Cars!



Steam Shovel
on
Bear Creek.

Eldorado and Bonanza Creeks. The ground lying in the famous "white channel," has been partly worked by the placer methods hitherto in vogue in the Klondike, of "wood fire" and "steam thawing" and underground tunneling sometimes at a depth of more than 100 feet. On the 23rd of April of this year, however, the preparatory work of installation of a gravity system having been completed last autumn, actual hydraulic operations were commenced.

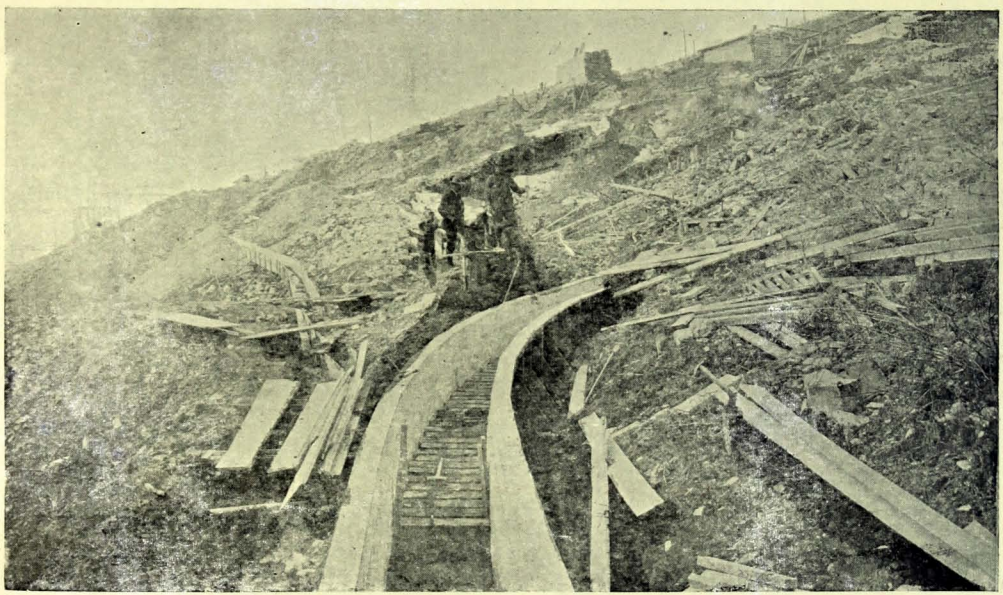
At a point some five miles distant, the waters of Bonanza Creek are diverted and conveyed through 4.78 miles of ditch and 1.04 of flume, each capable of carrying 1,000 inches, along the right limit of Bonanza Creek, crossing the numerous tributaries en route and being augmented by their quota of water, until at a point just below the town of Grand Forks they are conveyed to the opposite side of the creek and onto Gold Hill by means of an inverted siphon. Here they are directed through six No. 2 monitors onto a face some 1,000 feet in extent. These monitors are arranged in pairs which each feed a lateral to the main sluiceway. By working these pairs alternately, two-thirds of the face is always exposed to the thawing influence of the sun's rays, while one-third which has already been thawed may be most easily moved by the action of the water. Adopting this system, with the monitors under 146 feet direct pressure from the siphon, as nearly as can be estimated, the duty is four cubic yards to the miner's inch.

* * *

BONANZA CREEK GOLD MINING CO., LTD.

(By Emil Weinheim, Manager.)

The Bonanza Creek Gold Mining Company, Ltd., is a Canadian corporation, with its main office at 29 Broadway, New York City, and its mining property and mine office on Adams Hill, Yukon Ty.



Sluice Box and
Riffles on
Adams Hill.

Property—Hydraulic mining locations, No. 2, 8 and 9 on Bonanza Creek, between Adams and Boulder Creek.

Plant—Flume and ditch four miles in length from Stampede Gulch to head of Adams Creek, and over the entire property, connecting with one large reservoir, built so far on Adams Hill.

From the reservoir an eleven-inch pipe line takes water to No. 1 works with two No. 1 monitors, and a 12-inch pipe to No. 2 works with two No. 2 monitors.

No. 1 works is fitted with 1,000 feet of sluice to debris bank. Size of sluice, 24x30 inches with block riffles.

No. 2 works is fitted with a sluice 32x30 inches, also wooden block riffles.

No. 3 works is independent of the others as to water supply and debris bank, and has only a single No. 1 monitor and a short sluice, 16x24 inches, with wooden riffles.

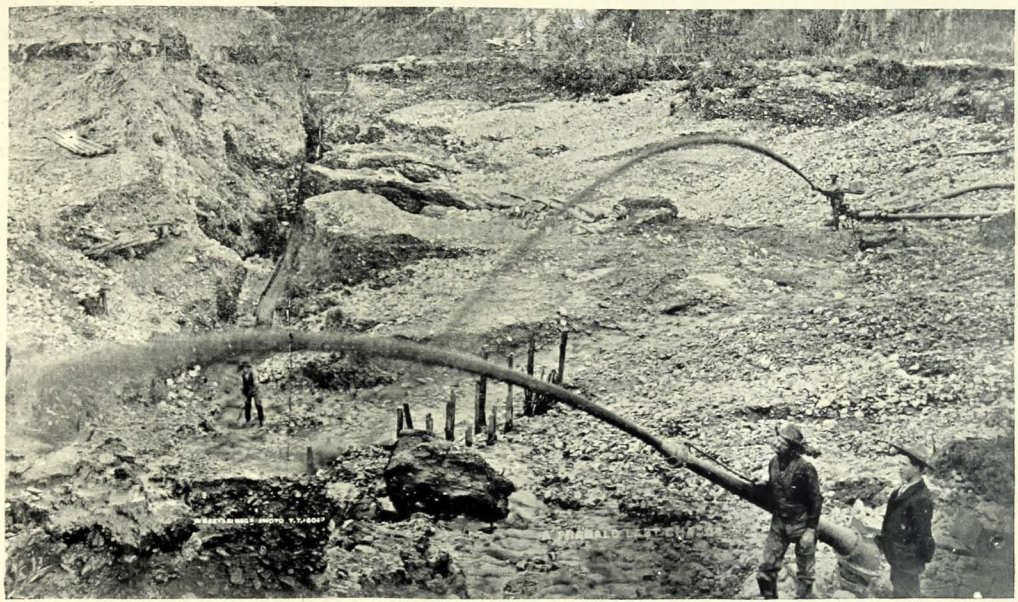
We find the wide sluice the best and will replace the wooden riffles with rock during this season.

Other reservoirs will be built for storage on the various hills on the property this summer.

A large impounding dam is commenced under direction of Mr. Moore of Massachusetts. This dam should store sufficient water from freshets to carry the supply over the dry season.

Other operating plants will be constructed this season ready to operate next spring.

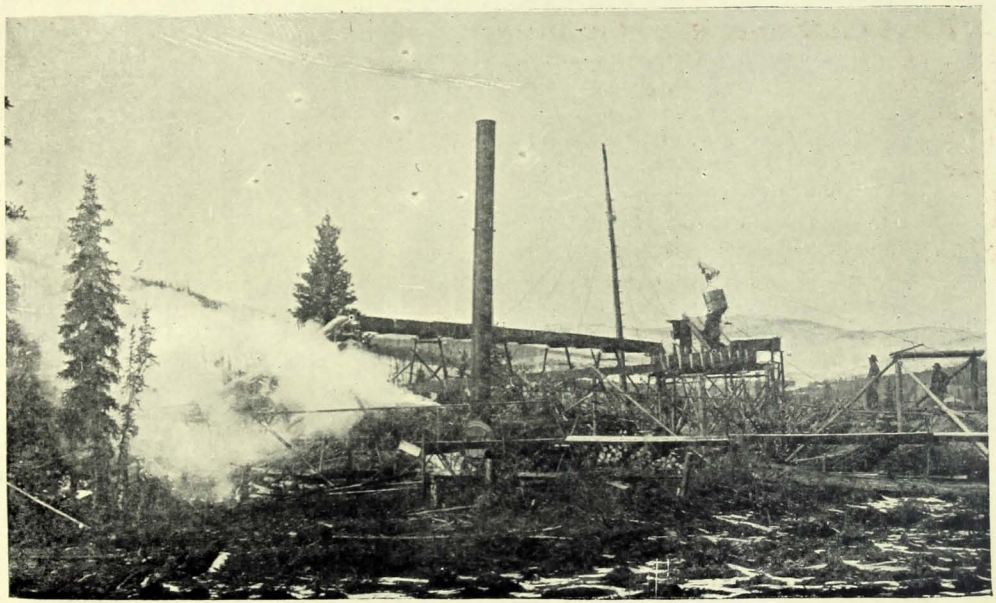
We are highly pleased with the results of the operations so far and can only encourage hydraulicking in the Yukon Territory.



Hydraulicking
on
Adams Hill.

HYDRAULICKING IN YUKON. As the self-dumper followed the windlass in the camp's progress towards economical development, so have the water ditch, the reservoir and the hydraulic nozzle followed the self-dumper. Where last year the hydraulic system was here looked upon but as a cheechaco experiment, this year we find among those who are hydraulicking the following well-known and important mining enterprises: The Anglo-Klondike Co., Fox Gulch; White Channel Gold Hill Hydraulics, Gold Hill; Fuller-Norwood Co., Bonanza; the Brener Co., Eldorado; North American Trading and Transportation Co., Miller Creek; Syndicat Lyonnais, Tenmile Creek; Breeze Mining Co., Bullion Creek; Pacific Coast Mining Co., Last Chance; Treasure Hill Pumping Plant, Last Chance; Elwell, Murray & Roselle, Temperance Hill, Hunker; August Larsen, Temperance Hill, Hunker; Delhi Group, Hunker; Redmond Bros., Paradise Hill, Hunker; Bonanza Creek Gold Mining Co., Bonanza. In addition to these larger operators are many other small operators throughout the country who use gravity water systems in place of the old pumping system and succeed better by the change.

DITCHES AND FLUMES. The greatest drawback that the miners of Yukon experience is the lack of the water necessary to separate the gold from the gold-bearing sands. Water is the vexed question here, and each man is compelled to solve the problem for himself. The attempt to install a great public water system here was prevented by the avarice of the men who had the right granted them by parliament. They demanded and were in a fair way to receive too much for the service when the cries and protests of the people were met with a royal commission to investigate matters and things here—the Treadgold commission. Their finding approved the complaints against



The
Self-Dumper
Way.

the concession and its rights and emoluments were curtailed to a point where the Treadgold company abandoned its intention of supplying a water system and the camp had nothing of the kind to look forward to. One result of the abandonment was to stimulate the big mining companies to build water systems of their own, and in the short space of time that has elapsed since the Treadgold company quit, one hundred anl twenty-six and a half miles of water ditches and flumes have been constructed to bring water to the various properties, besides the smaller lines built by individual owners and of which we have no record. Twenty-eight companies have constructed ditches or flumes to convey water to their properties, and the average length of such ditch or flume is exactly four and a half miles. They are divided as follows:

BONANZA CREEK. The Fuller-Norwood Co., 7 miles, with 2 inverted siphons; White Channel Gold Hill Hydraulics, 6 miles, 1 inverted siphon.

ELDORADO CREEK. Otto Brener, 7 1-2 miles, 1 inverted siphon.

HUNKER CREEK. Redmond Bros., 7 miles; Elliott & Jensen, 3 miles; Larson, Temperance Hill, 3 miles; Delhi Group, 4 miles; Anderson Concession, 1 1-2 miles; Ensel & Gandolfo, 3 miles; George Burke, 2 miles; Envoldson & Co., 2 1-2 miles.

LAST CHANCE CREEK. Younkins, et al., 4 miles.

MILLER CREEK. Norah American Trading and Transportation Co., 17 1-2 miles.

MOOSEHIDE CREEK. Acklen & Co., 9 miles.

LOWER DOMINION. McLennan & Day, 2 1-2 miles; Morrison, et al., 3 1-2 miles.

INDIAN RIVER. Croteau & McConnell, 3 1-2 miles.

BOULDER CREEK. Cook, Mizner, Day & Elliott, 3 1-2; Anglo-Klondike Mining Co., 4 miles.

Mining
Scene, 17
Cold Run.

QUARTZ AND CALDER CREEKS. Ole Tystead, 2 1-2 miles; McGillivray, McDonald, et al., 6 miles; Rosenberg, et al., 4 miles.

ADAMS CREEK. Fassbender, 4 miles; Pacific Coast Mining Co., 4 miles, 1 inverted siphon.

TENMILE CREEK. Syndicat Lyonnais du Klondike, 5 miles.

QUIGLEY CREEK. Parks, et al., 4 miles.

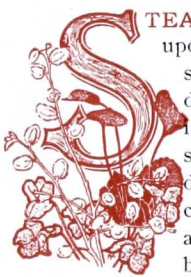
QUEEN GULCH. Knox & Hamilton, 5 miles, 1 inverted siphon.

PURE GOLD CREEK. Bogden, et al., 3 miles.

This amount is constantly being increased by the building of new waterways, anl many dams are being built to catch and hold the water in the rainy season until it is needed later in the dry season.

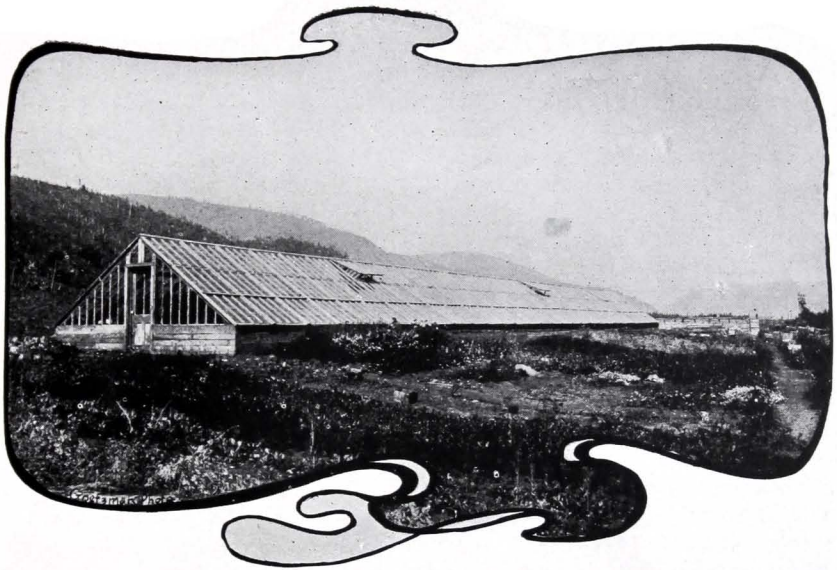
Yukon Has
967 Miles of
Wagon Roads.

Shoveling In
The Sluice
Boxes



TEAM SHOVELS AND DREDGES. The dredge and the steam shovel have entered upon upon their labors in Yukon, and much is expected from them. This is the third season in which the dredge has been used to move dirt on Bonanza Creek, and that new dredges have been purchased for the same creek speaks well of the dredge proposition in mining in Yukon. No larger dredge is in use in the world, and but one other of the same size is in use, than the one now being installed on Bear creek by the Canadian Klondike Mining Company, and other expensive dredges have been imported this year. The companies who are working dredges in Yukon are: Ogilvie Dredge Co., whose dredge after operating two seasons on Stewart is now at work on the Klondike near Ogilvie bridge; the Lewes River Dredging Co., the first company to take a dredge up the mountain and start it on a Bonanza Creek claim, and which dredge is now working on Discovery claim, Bonanza; A. D. Fields, who is placing a large dredge on No. 60 below Bonanza; the Canadian Klondike Mining Co., which has two steam shovels working on Bear Creek, and Frank Phiscator, one of the early Klondike mining magnates, who is working two shovels on No. 2 Eldorado.

In addition to these several dredges are being shipped to Dawson for work on mining properties in this section, among which are the following: Canadian Klondike Mining Co., a dredge that cost $200,000 and has a capacity of 2,500 yards of dirt daily, this dredge to replace their two steam shovels on Bear Creek; the Williams Co., that will cost $100,000 and will work properties on the Klondike, and the dredge of the Canadian Dredging and Mining Co., that will cost $75,000 and be placed on 89 below, Bonanza Creek. Everything that is necessary here to handle the situation as fast as it reveals itself will be forthcoming, for the values are in the ground.



One
Dawson
Greenhouse.

THE POSSIBILITIES OF GOLD DREDGING IN YUKON. "Does the Yukon present a field for the profitable investment of capital in mining gold by the dredge process?" is a query frequently propounded. As a result of six years' experience operating a three-foot Risdon dredge in the Klondike District, and by careful observation during that period, of the auriferous deposits of the country and the climatic and other conditions peculiar to it, I am convinced that the vast Yukon basin from the Rocky Mountains to the Bering Sea contains immense areas in which this form of mining can be profitably carried on. Within the limits of this brief article I will endeavor to give my reasons for such belief.

The modern gold dredge is a condensed assembly of powerful machinery capable of digging the dirt, washing the gold from it and depositing the residue within a few yards of its former resting place, a process simple, yet complete, with an enormous capacity and requiring but a very small amount of human labor.

In California, where gold dredging has reached its highest state of development, extremely low grade dirt is being profitably worked, and this after paying almost fabulous prices for land which but a few years ago was considered absolutely valueless for mining purposes. True, all the conditions in California are exceptionally favorable for cheap operation. They can operate 365 days in the year, while our season is but half that length (not taking into account that during half of that time there is continuous daylight, a feature of no inconsiderable value.) Our advantage lies in the high values in the ground, and it is these high values that especially commend the field for dredging operations.

The climatic conditions are not as unfavorable as might be supposed by those unacquainted with

Yukon
Haymakers
Haymaking.

the region. The summer climate cannot be surpassed anywhere in the world for delightfulness. It is a healthful climate, and where the most ordinary sanitary precautions are observed, zymotic diseases are practically unknown. The winters are cold, but not severe, due to the dryness of the atmosphere and the absence of high winds. Blizzards are unknown. While actual dredging operations cannot be carried on during the winter, that season is ideal for the cutting and yarding of wood. Men engaged in that occupation seldom find it necessary to lose a day on account of the weather. The prospecting drill can also be worked to the best advantage during the winter.

Our placer gold is found mostly in bedrock and the ground is generally frozen. This combination of circumstances may seem to the uninitiated a fatal objection. It presents a difficulty, to be sure, but not an insurmountable one, as the results I have been able to accomplish will amply testify. It adds to the cost, but the high values obtained justify the expense.

There are countless thousands of acres in the Yukon basin that are suitable for dredging and that would pay handsome returns on the investment if judiciously made. The country is capable of thorough investigation and it is the thorough and intelligent investigator that the country needs. When the true conditions become generally known, by reason of such investigation, I believe I am not too optimistic in predicting that the number of dredges in operation in the Yukon will be limited for a number of years only by the capacity of the manufacturers to fill orders.

It must not be inferred that all placer ground in the Yukon is suitable for dredging. On the contrary, much ground that can be profitably worked by other processes would prove a failure for dredging purposes.

In order to succeed with a dredge in the Yukon the first desideratum is careful selection of the

ground as to its suitability for the purpose; then, given a dredge properly constructed to meet the conditions under which it is to be operated, and, intelligently managed, and the Yukon presents an almost limitless field for the profitable investment of capital in mining gold by the dredge process.

J. MOORE ELMER, E. M.

Mr. J. Moore Elmer is manager of the Lewes River Mining and Dredging Co., and engineer in charge of the Canadian Klondike Mining Co., Limited. The former company has been operating a three foot Risdon dredge in the Klondike District for the past six years. Its operations on Bonanza Creek have been highly successful. The latter company is installing a seven foot Marion dredge on what is known as the "Boyle Concession" in the Klondike River valley. This dredge is expected to be in operation about September 1st of this year. Mr. Elmer is the pioneer dredger of the district and writes with a full knowledge of his subject.

* * *

THE TENMILE CONCESSION.

(By A. Tarut, Manager.)

The property known as the Tenmile Concession is owned by the Syndicat Lyonnais du Klondike. It is situated on Tenmile Creek, a tributary of the Sixtymile River, and is sixty-two miles from Dawson. The property is five miles long and one mile wide.

Tenmile Creek was first prospected by the Fortymile miners in 1894-5. They reported that the creek was spotted, but that they made wages while prospecting despite the fact that their methods were of the most primitive kind. It was abandoned in the rush to Dawson in 1896 when the news of the discoveries here depopulated the lower river country for the time being.

In the
Winter
Time.

In 1901 the Syndicat Lyonnais acquired the property as a concession. They crosscut it from rim to rim and twenty feet deep in three places, and it showed gold but so irregularly, and the quality of the gravels was such that, together with the existing conditions of the creek it did not warrant a continuation of operations.

In 1904, under the directions of Mr. Beaudette, government mining engineer, a search was made on the hillsides on the left limit of the creek. which, he alleged, contained gold. In the month of June of the same year these gravels were found to contain gold in sufficient quantity for further investigation. A tunnel was driven 175 feet in the hillside and proved to contain pay all the way. Pans were taken from this tunnel giving very good results. Some pieces of gold as high as 30 cents were washed in a pan. The whole tunnel was sluiced up and an average of the pay taken to the cubic yard. It was then decided to install a large hydraulic plant and operate on a large scale.

These gravels are situated at an elevation of 170 feet above the level of the creek and their thickness at the deepest place will reach 75 feet. They are composed of small quartz pebbles together with some very fine material composed of calcite and silica very easily disintegrated and devoid of large boulders. The extent of these gravels is at present unknown, but they have been observed at different places on the same side of the creek for a distance of three miles and it is proposed to make further prospecting.

In the winter of 1904-5 the company installed a sawmill at the mouth of the creek to saw all the lumber necessary for the construction of the conduits of water. Two hundred and sixty thousand feet of lumber were sawed and delivered on the hillsides along the creek for the construction of the flume. This flume will be four and one-half miles long with a capacity of 750 miners' inches.

The water will be delivered 180 feet above the point where the operations will take place, thus affording a good pressure. From this point the water is conducted to the mine by a pipe 18 inches in diameter to which are connected four monitors of two and one-half and three-inch nozzle.

The area of dumping ground is practically unlimited, as there is the whole creek to dump in, and the end of the sluice boxes to the bottom of the creek is 90 feet along a steep hillside.

The sluices are provided with block riffles and are 500 feet long, with a grade of eight per cent.

As the company has just completed the installation of this plant and is about to start hydraulicking, no cleanup has been made as yet, and no data can be given as to the quality of the gravel to the cubic yard and as to the cost of operation and the duty of a miner's inch.

NKZ 7/76 Argus


-Dawson Y.T. 1904-
-Goetzman Photo-