THE COAL FIELDS OF ALASKA

BY ALFRED H. BROOKS

THERE are two known areas of high grade coal—the Bering river field, in the Controller bay region and the Matanuska field, north of Cook inlet. The Bering river field, lying about 25 miles from tidewater at Controller bay, embraces 26.4 square miles underlaid by anthracite and 20.2 square miles underlaid by bituminous coal. The coal bearing rocks trend to the northeast into the unsurveyed high ranges, and it is quite possible that there may be an extension of the coal fields in this direction.

Coal beds varying from 6 to 20 feet in thickness are exposed in this region, with some local swellings, giving a much higher maximum thickness. In quality the coals vary from an anthracite, with 84 per cent. of fixed carbon, to a semi-bituminous, with 74 per cent. of fixed carbon, and include some varieties that will coke. There has been much prospecting of these coals, but in the absence of railways no mines have been developed, though a small output from one bed has been taken to the coast in barges.

The Matanuska coal field lies about 25 miles from the tidewater, however, the a northerly embayment of Cook inlet. As Cook inlet is frozen during the winter, however the distance to an open seaport must be measured to Resurrection bay, on the east side of Kenai peninsula, about 150 miles from the coal fields.

The known commercially valuable coals of the Matanuska field vary in quality from a sub-bituminous to a semi-bituminous, with some anthracite, and are included in folded and faulted Tertiary (Eocene?) shales, sandstones, and some conglomerates, aggregating 3,000 feet in thickness.

The coal beds vary from 5 to 36 feet in thickness, and the total area known to be underlain by coal aggregates 46½ square miles. However, as much of the field is covered by gravels and none of it has been surveyed in detail, the coal bearing area may be much larger. The total area of what may prove to be coal bearing rocks is approximately 900 square miles. Up to the present time there has been no means of transporting this coal to market, so that no mining has been done, but many beds have been opened in prospecting.

The anthracite from Matanuska and Bering rivers has no equivalent on the Pacific coast, and it compares favorably with the Pennsylvania anthracite. It ought to be put into the San Francisco and other Pacific coast markets at a cost far below that of eastern coal, in which case it should have no difficulty in entirely supplanting the latter.

The Bering river semi-anthracite and part of the semi-bituminous coal from Matanuska is also better than anything that is being mined in the west. These coals are the equivalent of the Pocahontas, New River, and Georges Creek coals of the east, and are eminently adapted for use on warships and for other purposes for which a high grade, pure, "smokeless" steaming coal is required, and for these purposes will command a considerably higher price than any coal now being mined on the Pacific coast, or if offered at equal prices, should readily drive the latter from the market.

Part of these coals will produce an excellent quality of coke—better, in fact (except possibly in content of phosphorus, regarding which no data are available), than coke which can be produced from any of the Washington or Vancouver island coals, and equal to the coke from Crow's Nest pass. If an important smelter industry grows up in Alaska, as now seems possible, the Alaska coking coals should have the advantage, both of quality and of transportation.

Mining developments in the Bering river cold fields of the Controller bay region and in the Matanuska coal fields of the Cook inlet region have been practically confined to surveys for patents, assessment work, and trail building. The most important features are connected with the problem of railway construction.

No patents for coal land have yet been granted.

The value of these high grade fuels of Alaska probably exceeds that of the gold deposits, and the exploitation of these coal fields is of the greatest importance to the entire western seaboard of the continent. These coals will furnish not only the high grade steam coals needed for various industries, but also the coke for metallurgical enterprises. If the iron ores of the territory prove valuable, the west coast may yet be supplied from this source with the raw materials for the manufacture of iron and steel. In any event, the copper smelters can be provided with coke of a high grade.

The coals from other known Alaska fields than these are so situated or are of such quality that they can find markets only where excessive rates on outside coals give them an advantage; that is, their markets must be local and probably small. These lignites and lower grade bituminous coals have a wide distribution in Alaska, and some of them will have great value to local industries.

NARROW SHELF BLASTED OUT FOR RAILROAD

Peat is very widely distributed in Alaska, having been found in nearly every part of the territory. The climatic conditions, as well as those of plant life, in the central and northern part of the territory, seem especially favorable for the accumulation of peat. Everywhere the soil is clothed with a dense growth of moss and other small plants, and the frozen condition of the subsoil and the shortness of the summer season prevent decay.

Alaska contains a large variety of mineral deposits, and these, especially gold and coal, are widely distributed. The auriferous gravels are scattered over a very large area, but much of it is unprospected. There are some large auriferous lode mines in southeastern Alaska and promising lode prospects in other parts of the territory.

Copper mining has been done in two widely separated coastal districts. Very promising deposits of copper ore occur in two inland belts which are undeveloped because they are not yet accessible by rail, and copper prospects have been found elsewhere in the territory.

Tin, marble, gypsum and petroleum have been produced from Alaskan deposits; iron and other minerals probably have future commercial value.

Mining began about 1880 and progressed slowly for nearly two decades, since which advancement has been very rapid. Much of the Pacific seaboard, with its cheap transportation, strong relief, abundant water power and timber, and equable climate, is most favorable to low costs of mining. These conditions have resulted in the development of one of the largest low grade gold mining enterprises in the world, as well as some others of considerable magnitude. They have also favored the successful exploitation of comparatively low grade copper ores, even at the low market value of the metal during the past year.

Though placer mining has been carried on in Alaska for nearly 30 years, it has been chiefly by the crude methods of the pioneer that more than $100,000,000 worth of gold has been won from the auriferous gravels. The modern epoch of placer mining, with labor saving machinery, has only just begun, and the field in which such methods are used is capable of much expansion. Though the future discovery of bonanzas, such as have made Alaska famous in the past, cannot be predicted, it is certain that the possibilities of new finds are far from being exhausted, and that there are hundreds of creeks known to be auriferous which may yield gold in commercial quantities when means are found to reduce the present cost of operation.

The inland copper districts await the railway transportation, which will not only lead to the development of known deposits, but also stimulate further search for ore bodies. Such developments of a lode mining industry will give a larger permanent population—at present Alaska's greatest need.

A full development of the mining industry is possible only by the improvement of the transportation facilities. At least one railway must be built to the Yukon gold fields, and the inland copper lode districts and coal fields must be connected with Pacific ports that are open throughout the year. Then, and not until then, can Alaska's mining industry be developed to the extent warranted by her known mineral wealth.

The total value of the mineral production of the territory since productive mining began, in 1880, exceeds $147,000,000.

The known mineral wealth of inland Alaska is embraced in the two copper bearing belts of Copper river, lying 100 to 300 miles from tidewater; the Bering river coal fields, 25 miles from the coast of Controller bay and 100 miles from a good harbor on Prince William sound; the Matanuska coal fields, 150 miles from an ice-free port on the Pacific, and the Yukon placers, from 400 to 600 miles by feasible railways routes from the Pacific tidewater by high, snow-covered ranges, broken, however, by several river valleys.

The full development of the mineral wealth of inland Alaska must await improvement in means of communication, which will need to be of a very radical character.

Thanks to the Alaska road commission, and in a lesser degree to local enterprise, much has been accomplished in the way of road and trail building. Much, however, remains to be done, for in this territory, embracing nearly 600,000 square miles, there are only 542 miles of wagon road, 397 of sled road, and 255 of trail. The coastal service of ocean vessels and the river transportation systems of the Yukon and its tributaries are being much improved. In addition to this, steamboats have been placed on Copper and Sushitna rivers. Local transportation facilities have also been greatly bothered by short lines of railway, such as those at the White pass, at Fairbanks, in Seward peninsula, and the Copper River railway, which now extends from Cordova for about 70 miles inland.

All these improvements in means of communication, together with the military telegraph lines, wireless stations and long distance telephone systems, have done much to advance the mining industry. They can, however, be regarded only as supplementary to a system of railways, which alone can make available the mineral wealth of extensive areas. In fact, they serve to emphasize the inadequacy of the existing transportation systems. The industrial demands for better communication can be met only by railways which shall connect the mineral deposits with open ports on the Pacific seaboard.

The Mecca of the Fat.

Marienbad is a place of special interest to English people, for King Edward had deserted Homburg, where for so many years he did his summer cure, and every August saw him installed in the Church square at Marienbad and prepared to follow out the somewhat severe regime of the place. Twenty years ago this famous watering place was scarcely known to foreign people, although it is nearly a century since it was visited by so great a man as Goethe. The springs are owned by the Abbey of Tepl, a large monastery some miles away, and the good brothers evidently did not understand the art of advertisement, for the place remained practically unknown outside German-speaking countries until recent times. But doctors began to find out how useful its waters were to the man who loved his dinner and to the lady whose figure had lost its lines, and nowadays it has become the Mecca of the fat.—Wide World Magazine.

POSITION OF THE UMPIRE NO LONGER DANGEROUS

RETIREMENT OF JACK SHERIDAN CALLS TO MIND IMPROVEMENT OF GAME.

John F. Sheridan, the oldest umpire in point of service in baseball, has laid down the indicator and quit the business, unless a plan among his friends to make him chief of umpires in the American league is carried out. He has an undertaking establishment in San Jose, Cal. Maybe he intends to give his attention to "dead ones" hereafter. He didn't find may this year in the American league.

The retirement of Sheridan, if indeed he quits for good, reminds us that umpiring under existing conditions in baseball has been made an ideal position. There was a time, and it was not so many years ago, when it was not an easy matter to find a man willing to assume the duties at any price. Today there are hundreds of applicants for every position, because the work is easy now, where it was once a dangerous undertaking.

One thing that the strict discipline now in vogue on the ball field has proved is that the game has not suffered by the inauguration of rules which give the umpire complete control of the players. When steps were taken in this direction, years ago, the cry went up that baseball was being killed, that the public wanted to see the players fight on the field, and to prevent these scenes would be to rob the game of its most delightful feature. Subsequent results have shown the falacy of this theory, for base ball today is a more popular sport than ever before, and is catering to a much better class of patrons. In many cities the game is furnishing the principal summer entertainment for the gentler sex, which in itself is a wonderful achievement. All of the big cities have a splendid attendance of the fair sex, which has learned the game and is its most loyal supported. The elimination of rowdyism has brought about this most encouraging condition.

Fielder Jones, who at present resides in Portland, Ore., has signed to play center field for the Chehalis team of the Washington State league. Jones was manager and star player of the Chicago White Sox, and ending his work in the big league by declining an offer of $10,000 a year. Some time since he went to the northwest to look after his timber investments and to take a rest. With the Chehalis team he can play three games a week and have ample time for recreation and attending to his business.

Eugene Moore, Pirate pitcher, has been sent to the New Britain club of the Connecticut league. He was sacrificed in order that Cleon Webb might be saved. Webb was sent to that team in the first place, but Grand Rapids, Webb's old stamping grounds, howled and Webb was recalled. New Britain had to be appeased and Moore was sent there. He can be recalled. Webb may be sent to a class A team, where he, too, can be recalled if necessary. Webb won seven games in a row and was the sensation of the Connecticut circuit.

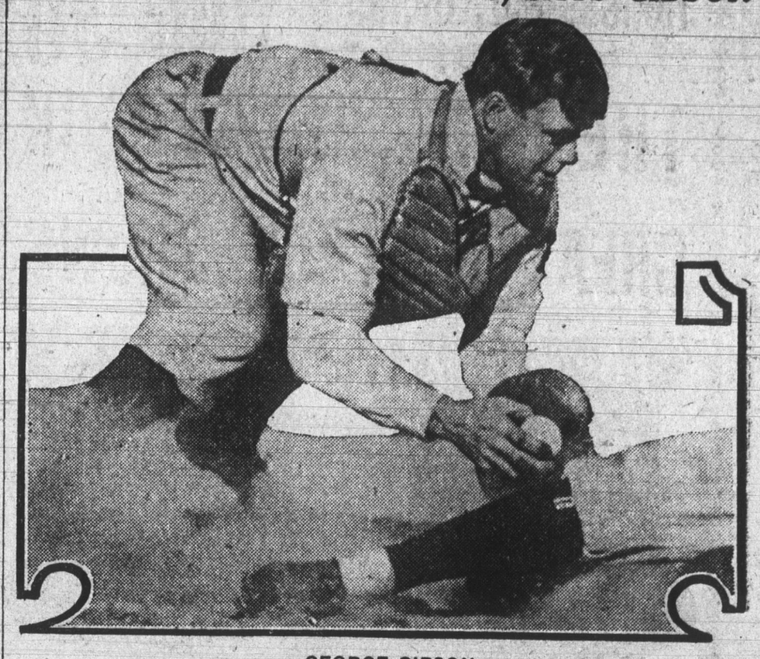
"Chief" Cadreau, the Chippewa Indian on the pitching staff of the Minot (N. D.) team, has established a new record for sheer endurance, even for an Indian. Several weeks ago he was hit by a pitched ball, since which time his pitching arm has caused him more or less annoyance, and he has complained of severe pain whenever he found it necessary to work in the box. Recently he pitched against Fessenden, but had to be taken out of the game. He was taken to a surgeon and the X-ray apparatus revealed the fact that his arm was broken.

Cobb declares, that left-handed batters can solve the sharp-breaking curve thrown by left-handed pitchers—a curve that is too much for most of them—by crowding in to the plate, stepping forward on the ball, and spearing it before it breaks. This, he says, is a comparatively easy thing with only a little practise. Most left-handed batters, Ty says, have grown accustomed to imagining themselves buffaloed by the port-side pitchers, and fall feebly from afar when that curve comes over. By crowding boldly inward they can get busy with the ball, and will soon find themselves making all kinds of hits off the delivery that has so long confoozled them.

Manager Patsy Donovan of the Boston "Speed Boys," says: "In Speaker, Hooper and Duffy Lewis, I have the best set of throwing outfielders—in the game today. Every one of them has an arm of steel and can peg true and far. My team is not only the youngest in the league, but will be a far better outfit next season. Lewis has played good ball and hit hard since the season began. He is coming better every day. It is usually discouraging for a young ball player breaking into the league, as he doesn't always have the best of confidence in himself. However, this fellow is overcoming that and will be a great ball player before long."

Some good old veterans do get into the minor league scores these days. Malachi Kittridge is catching for Elgin; Danny Green and Phil Geier are with Burlington; Eberts of Hannibal must be thirty-seven years old; Nadeau of Joliet was a star in the New England league nearly 20 years ago, and there are many others.

HARMONY AND CONDITION THE GREAT FACTORS IN SUCCESS, SAYS GIBSON



GEORGE GIBSON.

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It is working together and working all the time, keeping in condition and having confidence in one's own ball club that wins. With the Pittsburg club it has been the case. I think Clarke has made us all better ball players by his own example. You see we have a crowd of fellows who like each other personally, and any one will do anything to help the others. There is a lot in that. Then every man on the team will jump across the river for Clarke, and that helps more. He drilled the team work into us, and I think we have it.

No one man won the pennant for us; it was the whole bunch working together and fighting, no matter how badly we seemed beaten. Our style of play and team hitting broke up the other clubs, and we won it by making runs, which are all that count, and forgetting errors just as fast as we made them.

I had a hard season, being in nearly every game, but was lucky. I think the biggest part of the success of our pitchers last year was that they had confidence in my work and in the team behind them. If some of those clubs knew the chances we took they would wonder we ever won. It helps pitchers to know they can put that ball right over straight and feel that some one will go out and get it for them. A fellow does not properly understand the value of team work until he has caught a bunch of pitchers who try to do exactly what they are signaled to do and never complain if the catcher's judgment is wrong. It is a pleasure to catch pitchers who will work with you as if you were one. That is the only way for a battery to work. If they get to crossing each other and mixing things up the pitcher will look bad and the catcher look worse, and the team will lose.

I cannot tell much about how to catch, because I think a fellow must stay back there and think and study and learn until he gets it for himself. There are some pointers, however, that may be of some use to young fellows who are just breaking in. Stand steady all the time and as nearly in throwing position as possible. Study the batters, what kinds of bats they bring up, how they stand in the box, and try to think out what they are likely to try to do. Always step in as close as possible when expecting to have to make a throw or when the batter is showing signs of bunting. Be ready to go in at all times. Another thing, a catcher can do a pitcher a lot of damage by using bad judgment in what to call for. Do not curve a pitcher to death. Make his work just as easy for him as the situation will permit, if you are giving the signals. It is easier, of course, to catch the curves when they are out. It is a bad idea, too, for a catcher to try to protect himself at the expense of a pitcher. A catcher should not make pitchers pitch out too often and waste balls that may be valuable, just so he can throw from better position to catch runners. A catcher ought to watch the base runners more closely than any other man does. He ought to protect the pitcher by signaling him when to drive runners back, and at the same time to protect himself. He ought never to allow a pitcher to pitch with players out of position, not until he is certain the whole team knows what the signal is, if he has signaled for some throw. He ought always try to slow up pitchers when they are working too fast, and give them a chance to steady.

No player can tell another one how to play, but each one learns something from experience which may help a youngster, and I hope these ideas of mine will help some one. I think they would have helped me if some one had told me at the start.

"OLD ROMAN" COMISKEY OPENS $1,000,000 PARK

Charles Comiskey, the "Old Roman" of baseball, has opened his fine new plant in Chicago. The new home of the "Sox" is about the finest place in which the great national game is played. It cost close to a million dollars, according to report.

Comiskey is one of the big men in baseball, and the great success he has achieved is deserved. He has done much to place the game on the high plane where it now is found, and although in the last two or three seasons his team has not been very close to the top at any time, he has held the admiration of thousands of "fans."

When he placed his team in the American league ten years ago, the first game was with Milwaukee. The Sox lost, but the 5,000 spectators were enthusiastic. From that day to this they have been rabid in their friendship for the team.

To show two things—the belief of the Chicago fans in the White Sox, and the growth in the interest in baseball—it may be necessary only to say that on the day the new park was opened there were 30,000 persons in the grand stands and bleachers.

Old time fans will be interested in a review of the lineup of Comiskey's invaders. "Dummy" Hoy covered center field, McFarland was in the middle garden, and Lally in left. Hartman covered third base and Shugart, who is the only one of the old guard who aided in opening Comiskey's first Chicago park on hand as the gates were locked to major league ball, was at short. Padden took care of second base, while Isbell, for nine years a member of the team, was on the initial sack. Sugden, only recently relegated to the so-called "has beens," was behind the bat and Katoll did the twirling.

Thinks Hairpins Give Luck.

Nearly all baseball players are superstitious, and many of them fear a "Jinks." Tom Tennant of the San Francisco team in the Pacific Coast league seems to be in a class all by himself, however. If some one would search Tennant while playing first base for his team, he would find enough hairpins to stock a country store. Every time Tom finds a hairpin he picks it up and puts it in his pocket. He believes that, if he saw a hairpin and did not pick it up, he would not make a hit until he had retrieved himself, by finding another and storing it away. Judging from the records, Tom must have found a good many hairpins this summer. Occasionally Tow runs across a hatpin, and that is always good for a home run.

Lumley Stays With Minors.

The Philadelphia club has passed up Harry Lumley, who refused to report, after being secured from the Brooklyn club. Manager Dooin, not wishing to keep him out of the business, and feeling that Lumley is through with the big league, has notified Brooklyn that he will waive claim, allowing Harry to remain at Binghamton, where he wants to stay.

Coakley Signs With Colonels.

Dr. Andrew Coakley, formerly a pitcher on the Chicago and Cincinnati National league teams, has signed with Louisville.

TRAVELING AT FAST PACE

Artie Hofman is doing a whole lot to keep those Cubs at the top. Whether in center field or on first base he plays a great game. If he could split up his three bagers and home runs into singles he would be leading the league in batting.