

had. If the sample has not been carefully taken the assay becomes little more than a qualitative test. There should be as much care taken in securing a sample as in the assaying.

Except in ore of nearly uniform grade pieces chipped off by a pick from different places can not be relied on as giving an accurate sample. A much better tool than the "expert" pick is a moil made of one and a half feet of drill steel drawn out to and presenting a rectangular end three-quarters by one-quarter inch. With this and a single hand hammer ore can be very readily and evenly broken from any exposed face. It is necessary to have a large piece of canvas, say five by five feet, which serves as a sampling cloth. This is placed to catch the broken ore. The amount to be broken depends on the width of the vein and the uniformity of the ore. If the width exceeds, say eight feet, it is advisable to do the sampling in sections, measuring each section and keeping the samples separate.

Several channels are cut with the moil across the face to be sampled. The material broken, varying in weight from fifty to two hundred pounds, is further broken to nut size, thoroughly mixed on the canvas by rolling, and quartered. Two opposite quarters are rejected and the remainder further broken and quartered. Care should be taken not to quarter a small amount unless quite finely broken.

The final sample should be sacked and handed to the assayer for further crushing, sampling and assaying.

The value of the ore will vary in different places in the same deposit. Therefore, at as many points as possible, such samples should be taken. The average of a number of such samples will give a very correct idea of the general value of the ore.

Intelligent mining can be done only when it is accompanied by thorough and systematic sampling. If claim owners would take sufficient trouble in the securing of samples for assays in order to learn the true value of their ore they would save themselves the money too often spent in developing worthless prospects, and would be able to give intending purchasers what they can seldom get from prospectors—a correct statement of the value of their ore.

DAWSON CITY, DECEMBER, '99.

BY D. FALCONER.

ON the 25th of December, '97, said Jock Jarvis to his mates: "Weel, lads, this is Christmas Day; what'll we hae for our denner?" and Harry Stone, from New York, whose turn it was to cook that week, replied: "Bean soup, boiled salmon, corned beef, cod-fish balls, slapjacks, stewed prunes, and all the delicacies of Klondyke. I don't know how you fellows feel about it, but I think we're blamed lucky. I wouldn't be surprised if the citizens of Dawson are dining on boiled boots and fried suspenders."

"Nae doot, nae doot, lad. Proveesions will be verra scarce there by noo. We should be thankful to Providence that we are sae weel provided for."

"Providence be blowed," replied English Jim Bevis, the third partner; "we brought a good houtfit, and now we're gettin' the benefit of it."

And so the partners dined on Christmas Day royally. And the canny Jock Jarvis, anticipating the season of rejoicing, had, with much difficulty, secretly treasured up a bottle of Scotch whiskey, which, upon

its unexpected appearance, occasioned a howl of delight. English Jim cut capers around the cabin, and repeatedly shook hands with his partners; New York Harry turned three clear back somersaults, and Scottish Jock, to the tune of "Roy's Wife," played in rapid time on an infirm mouth organ, gracefully executed a sword dance over two crossed shovel handles.

And the partners toiled on. In winter they "burned" the frozen gravel, and piled it on the dump. During the short summer months they washed out gold, fine, coarse and in chunks worth 200 and 300 dollars. As English Jim observed, they had brought a good "houtfit," and they held on, successfully working their remote claim for two seasons. * * * Late in the afternoon of the 24th of December, '99, three soiled, famished prospectors halted on a hill-side fifty feet or so above the majestic Yukon. They were within four miles of Dawson City.

"Weel, mates, we're just about at the end o' oor tether. What hae ye gotten for oor supper, Jim?"

"Well 'ere's a pan o' oil-tanned larrigans, and some rawhide straps, which you can have stewed, roasted, fried or biled. Not such a bad supper for chaps in redooed circumstances, what have only a million and a half dollars cash on 'and. Oil-tanned larrigans are just the thing for parties sufferin' from loss of appetite an' weak digestion, so I believe."

"Guid bless me, is it no waefu' to think o't. Each o' us worth mair than ninety thoosand poonds, in gowd, an' yet we're obleeged to eat oor ain shoon? Aye, mon, if we were only in Glassgay, I'd show ye a supper for ane and saxpence that'd mak yer teeth water."

"Wall, gentlemen, we've had a close shave, but Dawson's only four miles away, and we can make it to-morrow, by hard dragging, grub or no grub. I think we've been playin' in uncommon good luck from the start."

"Aye, men, but we're no oot o' the woods yet, an' if a storm should come on, we'd noor see the face o' friend or foe again."

"Now, boys," said English Jim in a cheery hospitable voice, "supper's all ready. Sit down before it gets cold. Look around the table, an' if there's anything you don't see, ask for it. For what we are about to receive the Lord make us * * * Hilloa, bust my eyes if here aint a bloomin' caravan comin' along!" Whereupon English Jim kicked the supper he had so carefully cooked out over the snow and danced a hornpipe on it.

The "bloomin' caravan" proved to be George Johnson's pack train, returning to Dawson from a trip up the country.

Johnson was surprised to see the three partners. They had long ago been given up as dead men by those who saw them start out two years before. He, Johnson, at once halted his train, and in less than half an hour the famished pilgrims were devouring (not eating) a plentiful, if roughly served meal of bacon, slapjacks, and fried potatoes, washed down with strong coffee.

Then Johnson produced a portly jug of mellow old rye, and, by virtue of the festive season, and their sudden deliverance the partners indulged freely.

Let those who have toiled for two years in the frozen wastes of Alaska sit in judgment upon Jock, Jim and Harry. Suddenly delivered from intense physical suffering, by no means unlikely to end in