company has had no difficulty in disposing of its output. For six months it has not had a pound of unsold copper on its hands.

The inauguration of a quarterly dividend, beginning at 50 cents a share, is pretty substantial evidence that the corporation—surface mine, steam shovels, reduction plant and all—have gone beyond the experimental stage and achieved success. But there is still stronger proof. The capacity of the mill is to be increased to 9,000 tons of ore a day.

Business men as wise as those in charge of Utah Copper do not enlarge plants whose efficiency is questionable.

Estimates based on actual experience show that the addition to the mill will add considerably more than half to the former output, bringing the annual production of copper to ninety or one hundred million pounds. To transport the additional tonnage better railroad facilities will be indispensable, and it is more than probable that the company will build a line of its own from Bingham to Garfield.

It is understood that General Manager D. C. Jackling, who is also first vice president of the corporation, went over the expansion plans with the directors during his recent visit to New York, and was given authority to proceed with the work. The official announcement may be made in the next quarterly report.

ABLE GENERALSHIP OF UTAH CON.

Someone—was it Mr. Dooley or Herb Spencer?—once said that the principal difference between the primitive and the civilized man is in the range of their foresight. The one, it was asserted, looks only to the morrow, while the other plans for the months and years to come.

The same difference distinguishes the modern from the old fashioned mining enterprise. It is no longer considered good policy to hustle the ore out of a mine as fast as it is found. The ore reserves are as important to a mining company as is the cash reserve to a bank or the reserve corps to an army in battle.

No better example of the provision of the up-to-date mine management is to be found anywhere than that afforded by the Utah Consolidated of Bingham. President Broughton has shown himself to be a man of unusual discernment, and he has as his local representative General Manager J. B. Risque a man possessed of the same quality in a high degree.

One not in their confidence is unable to say how far into the future their plans extend, but the events of the past year have shown them well armed for every contingency which has arisen during that period. Their readiness was particularly evident when the American Smelting & Refining company attempted to extract from them a higher rate for the treatment of Utah Consolidated ore than they considered fair.

Foreseeing a long way ahead the closing of the Highland Boy smelter at Murray, in compliance with an anti-smoke injunction, the Utah Consolidated had taken options on 1600 acres of land on the west slope of the Bingham mountains and secured from the owners an agreement for smoke damage easements on the 30,000 acres more. A considerable amount, possibly $10,000, was paid to secure these options, and would have been wasted had the occasion for their exercise not arisen. The occasion, however, was not long in coming. The Highland Boy was enjoined from operating, and the mine found itself without a market for its ores.

Preparations had been made looking to the building of a new smelter on the optioned site, when the American Smelting company tendered the services of its Garfield plant at a rate which appealed to the business instincts of the Utah's executives. The contract with the American was closed. It was for the period of one year, with the option of a year's renewal.

During the past year the Consolidated furnished the Garfield smelter with from 800 to 1000 tons of ore daily. Relations were pleasant, and it began to look as if the ten thousand or more dollars paid to the farmers would be lost. Nevertheless, the Utah Consolidated officers were wise enough, before the options expired, to sound the smelting company as to its future intentions. It was suggested that a five-year extension of the existing contract would be most welcome.

The American company temporized, and the matter would have been unsettled, when the Tooele county options expired had the mining company not served an ultimatum requiring an answer before that time. The answer was a refusal to continue the old contract for a five-year term and the proposal of a higher rate. But a few hours of life remained to the options when this reply was received, but the time was sufficient for the strategists of the Utah Consolidated. They had provided themselves with the cash necessary to close with the landowners, and, on the day that the options were to have expired, the company's paymasters were at Tooele, with a hundred thousand or more dollars to take them up.

The next development came so promptly that one is inclined to guess that the Utah officials had been exercising their foresight in another direction. John D. Ryan, Thomas Cole and other operators in the Butte, Mont., copper field, applied for a lease on the Utah Con's new smelter site, proposing to build a modern 2000-ton smelting plant there and to treat the entire output of the Utah at a remarkably low rate—a rate that would save $300,000 from the sum paid this year to the American.

Thus, at every turn, the able generalship of the Utah Consolidated management has wrested victory from every apparent defeat.

The same regard for the future has characterized the development of the company's magnificent estate at Bingham—a property famous the world over for the economy of its methods and the low cost of its product. In 1908 its ore reserves were increased more than 100 per cent. Competent persons have estimated that the reserves are large enough at the present time to supply the smelters with 800 tons of ore every day for six or seven years.

Twelve months' work has demonstrated the presence of splendid resources on the 650, 700 and 800-foot levels in absolutely virgin territory. Despite contrary reports from Boston newspapers, it is asserted by persons who have been allowed to see the inside of the mine that some of the gold ore found at depth is of such a grade that it can be shipped direct to the smelters at a profit for its yellow metal values alone.

At the extreme northern part of the property and not far below the surface, the management has opened a body of lead ore that will stand comparison with anything in the camp—and that is saying something in its favor. Some of the ore found here will average well above 40 per cent.

President Broughton, in his last report to the stockholders, made the statement that the sulphide ore in sight is 1,202,930 tons, being 102,930 tons more than was in sight in March, 1907. The net profit for the last fiscal year was $1,179,412, or $3.93 per share. Since that report was made the quantity of ore in sight has been increased and the rising price of copper has added many thousand dollars to the value of the monthly output.

RECORD AT THE DALY-WEST.

The trials and tribulations that have beset the Daly-West mine at Park City for two years and more are well nigh over. The road ahead, down through the months of 1909, is smooth and inviting. Very different is the outlook from that which presented itself at the beginning of the present year. At that time the grip of the financial panic had scarcely commenced to relax, the smelters were barring their doors against silver-lead rock, stocks were so low that a man's poverty was in proportion to the quantity he held and the work of opening the Ontario tunnel had met with so many vexatious delays that no one would undertake to say when it would really be opened, or when the lower reaches of the Daly-West would be drained.

The end of the year finds the country in a state of almost normal prosperity, the smelters anxiously looking for ore, mining stocks more popular than ever among conservative investors, the Ontario tunnel reopened and being extended rapidly into Daly-West ground and good progress being made in the deepening of the company's main working shaft. Early in 1909, it is safe to predict, the drain tunnel will be carried under the Daly-West shaft, the shaft connected with the tunnel, new levels sent out into the huge deposits of milling ore and the output restored to the dazzling figures that made Daly-West a name to conjure with a few years ago.

But one cloud flecks the horizon at this time. Silver is disgracefully cheap and lead does not bring what it should. This disagreeable behavior on the part of the metal market is naturally objectionable to all mines that produce the metals affected, Daly-West included, but the owners of that property can comfort themselves with the knowledge that in a struggle for survival their mine can prove its fitness by earning profits at metal quotations which would drive half of its neighbors into bankruptcy. By reason of its development, location and equipment, as well as the volume of its ore bodies the Daly-West has an assured place among the lowest cost producers.

It has always been assumed by the public and admitted by the management that the shoots to be tapped below the old water level would be of lower grade, although larger, than the ore deposits nearer the surface. But this theory is not being confirmed by the appearance of the main shaft as it goes down. Some of the lenses of ore penetrated in the last hundred feet are high grade—so rich in fact, that they exceed the average of the rock mined above. A positive statement that the deep-lying shoots will consist largely of smelting ore would be premature, but one may stand on the prediction that they will contain a much better grade than the most optimistic mining expert expected to find before the revelations of the present year.

During the first six months of 1908 work at the Daly-West was almost at a standstill. Not until after the collapsed Ontario drain tunnel was cleaned out and repaired in May was an effort made to resume ore production. By midsummer from 250 to 300 men were in the workings, a considerable force was employed in driving the tunnel bore into the water-charged territory, the sinking of the working shaft was energetically commenced, the mill was started and the operations in the southeast drift toward the Little Bell were resumed.

At the depth of 1,665 feet in the main shaft a vein of high grade more than a foot in width was found fissuring the quartzite. It was below the foot wall and therefore outside the zone in which shipping ore was anticipated. The miners did not stop to drift on this vein, but cut through it and hastened on down toward the 1,700 level which is now close at hand.

In addition to the prospective riches in the deeper workings the mine can show excellent conditions on the 1,200 level where its heaviest reserves are developed, and in the territory adjoining the Little Bell.

Samuel L. Clemens (Mark Twain) passed his seventy-third birthday on November 30.