

Park City Overcomes the Drain Tunnel Disaster.

PARK CITY has not done as well in the way of dividends this year as it did last. However, the general condition of the camp is much improved today as compared to what it was 12 months ago. While progress has been greatly handicapped on account of the drain tunnel disaster, new developments have greatly overbalanced the bad effects of the tunnel difficulty.

Therefore the new year will come in under the most favorable circumstances. The camp will have at least one new dividend payer—the Daily Judge—to its credit and there is not the slightest doubt about the ability of this company to distribute "bread money" regularly among its shareholders for a great many years to come, unless some extraordinary event happens to prevent it. Probably the greatest developments of the year have been made in the Daily Judge mine. A crosscut run from the older workings over towards the Bonanza Flat section of the camp, on what is known as the 1,600-foot level, has opened up by all odds the largest as well as the richest shoot of ore ever found in the mine.

The development of an ore body, which may make of it another Woodside, has been the most pleasing event of the year at the Treasure Hill mine, the main works of which occupy a slightly point on the mountain overlooking the main town of Park City. Its owners anticipate the inauguration of ore shipments soon after the holidays and have only been prevented from doing so before now on account of litigation. Encouraging results have come from the conduct of work in Thayne's canyon, Scott Hill, Snake Creek and Elkhorn sections. In fact, everywhere where work has been performed systematically there is something good to show for it.

THE DRAIN TUNNEL.
But the citizens of the big Summit county camp have been more deeply

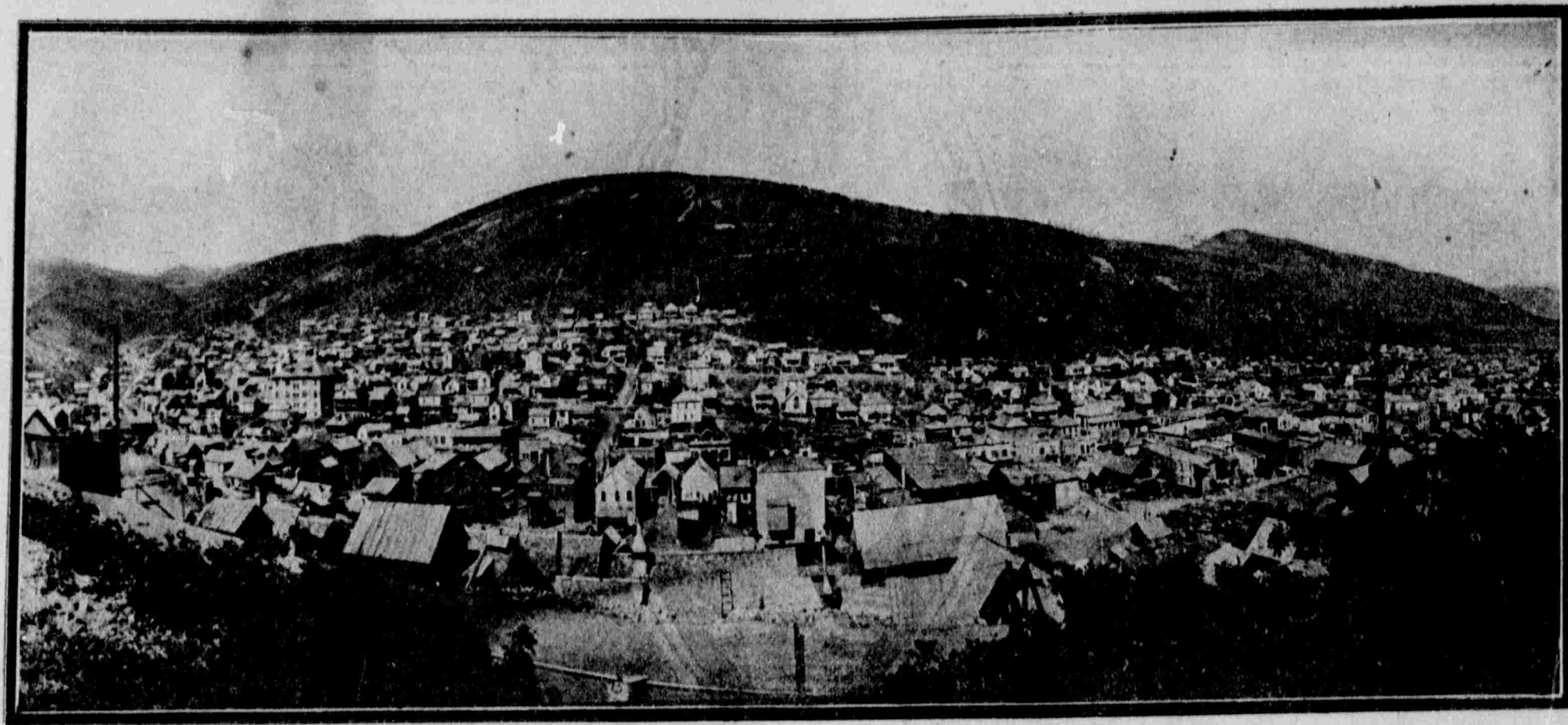


Photo by W. A. Adams.

PARK CITY AS IT LOOKS TODAY FROM A PHOTOGRAPH TAKEN SPECIALLY FOR THE CHRISTMAS NEWS.

ously prosecuted on the upper levels; the consequence of which was the discovery of new ore bodies from which regular shipments have been made and which have been profitable.

The Ontario company still retains the proud title of having the best dividend record of any Utah mine; it having paid out to shareholders more than \$1,000,000, yet the Silver King in the same camp, it kept up its present record, will come up to it within a few years more.

While the Ontario has probably seen

and quickest way of determining the location of the ore bodies believed to exist in that property. The Thompson company has done nothing towards the development of its attractive territory this year, but it is not unlikely that arrangements will be made to get at the ore through either the Daily Judge or Daily West workings.

SCOTT HILL SECTION.

In the Snake Creek section, Jesse Knight of Provo, has added the Steamboat group, at a cost it is said of \$50,000,

the Scottish Chief mine, which has been developing for several years under the management of W. J. Lawrence of Salt Lake. This property has a very favorable showing of lead-silver ore; some shipments have been made recently, and Mr. Lawrence feels confident that he will be prepared to make a very good showing next year. The property is situated near the summit of the mountain where the snow is generally deep in winter; so the chances are that until spring comes again the most of the time will be devoted to development, rather than to extraction of ore.

Near the Scottish Chief, but over on the Thayne's canyon slope of the mountain, is situated what has heretofore been known as the Brown group, with an attractive showing of copper, as well as lead silver ore. This ground has been acquired by a Park City syndicate upon a bond and lease calling for the payment of \$100,000. The syndicate is formed for the incorporation of the Copper Apex Mining company. Further down Thayne's is the Jupiter property upon which leasers have been working profitably for some time. The ore produced at the Jupiter is also lead and silver, characteristic of this zone. Nearby is the Odin, which gives promise of becoming a producer of considerable consequence, also the Comstock-California, where development has been going on intermittently for some time. Across the canyon is the Keystone, owned by it Bamberger of Salt Lake, but still in a state of inactivity.

ONTARIO AND OTHERS.

In the eastern part of the district, above the Ontario mine, is the location of the Vabash New York Bonanza and Nalldriver properties. The first two named have been under steady development throughout the year. Just what the Vabash company has accomplished on the lower levels of its property, no one knows, except those who are directing its affairs as it appears to be the policy of the management to keep the public in the dark as much as possible on the subject of the progress of mine development or its results. The company has leveled a number of heavy assessments and has kept development going along steadily. That is about all the public knows. The best Vabash officers will say is that they expect to have a mine some day. The stock is quite closely held, however, the bulk of it being in the possession of Omaha investors.

From all accounts, the New York Bonanza is looking as well as it ever did at any time during its existence. Numerous shipments have been made during the year and the proceeds have a little more than met operating expenses.

The New York has produced considerable high grade ore, which has attracted the attention of the Silver King, Daily Judge, Little Bell and American Flag. All of these mines have been developed. Practically nothing has been done at the Nalldriver this year.

SOME BIG BONANZAS.

In the more central portion of the camp are found such mines of prominence as the Silver King, Daily West, Daily Judge, Little Bell and American Flag. All of these mines have been active. The Silver King has again taken the lead as a dividend payer, the distribution amounting to \$20,000 monthly, since May 10, or \$800,000 for the year. The Daily company has done effective development work and shipments made from a portion of the mine left out to leasers resulted profitably. The American Flag company has shipped some ore from its upper levels, but the management has been greatly

handicapped in its operations ever since the stoppage of the Ontario tunnel. The Little Bell company developed a new ore body, and it ranks among the important events of the year. A new compressor and other equipment has been installed with the intention of starting the new year off right. Undoubtedly this mine will figure very conspicuously in the 1907 production of the camp. The Kearns-Kelth company owns a valuable property near the domains of the Silver King company and includes what was formerly known as

ment of the latter has been slow on account of the difficulty experienced in handling waste; however, this difficulty will be overcome shortly. But with the foregoing mentioned ore bodies showing as a result of this year's development it cannot be said that the management has not been on the alert, but on the other hand is entitled to most hearty commendation from shareholders for the able manner in which their interests have been cared for during the year drawing to a close. The operating costs have been notably decreased, while

largest producers. It has reached that stage of development and there is perhaps no better way to prove the assertion than to refer to what the company has done in the way of fixing up its finances since the dawn of 1906. On the first day of February last the Daily Judge company had an indebtedness of \$321,000. But last July this obligation was entirely wiped out and the new year of 1907 will come in with a cash balance in the treasury of probably better than \$300,000, after having met all operating expenses. The ore production of the Daily Judge mine has been approximately 16,000 tons per month, one half of which was sent to the mill through the Anchor tunnel for treatment. The resulting product being a lead concentrate and a zinc concentrate, the former being sold to American Smelting & Refining company and the latter to a local buyer of zinc ores. The zinc product has been a source of considerable revenue to the company this year, as it was during the closing months of last.

The Daily Judge concentrating area contains from 15 to 20 ounces in silver, 55 to 36 per cent lead, 5 per cent zinc and .095 ounces in gold, the concentrate having an average valuation of about \$40 per ton.

The high grade shipping ores have a valuation of from \$25 to \$35 per ton, the composition of them running from 25 to 25 ounces in silver, 25 to 20 per cent lead, .095 ounces gold and from 10 to 14 per cent zinc. All the Daily Judge ores carry an excess of iron making a desirable product at the smelter.

By far the most important development of the year in the Daily Judge mine was made on the 1,500 level, in the Bonanza Flat region and in the most western workings of the mine. Here an immense shoot of ore has been disclosed which has been developed to the length of 300 feet, while in width the body has been found to be from 10 to 40 feet. This ore is high grade galena and is characterized by being practically free from zinc.

Ore extraction has been going on from this portion of the mine as well as from the 1,200, 1,300, 1,400 and 1,500 levels of the other portion, which was formerly known as the Anchor mine. At the same time it has been the policy to prosecute a very vigorous campaign of development in several portions of the property, which

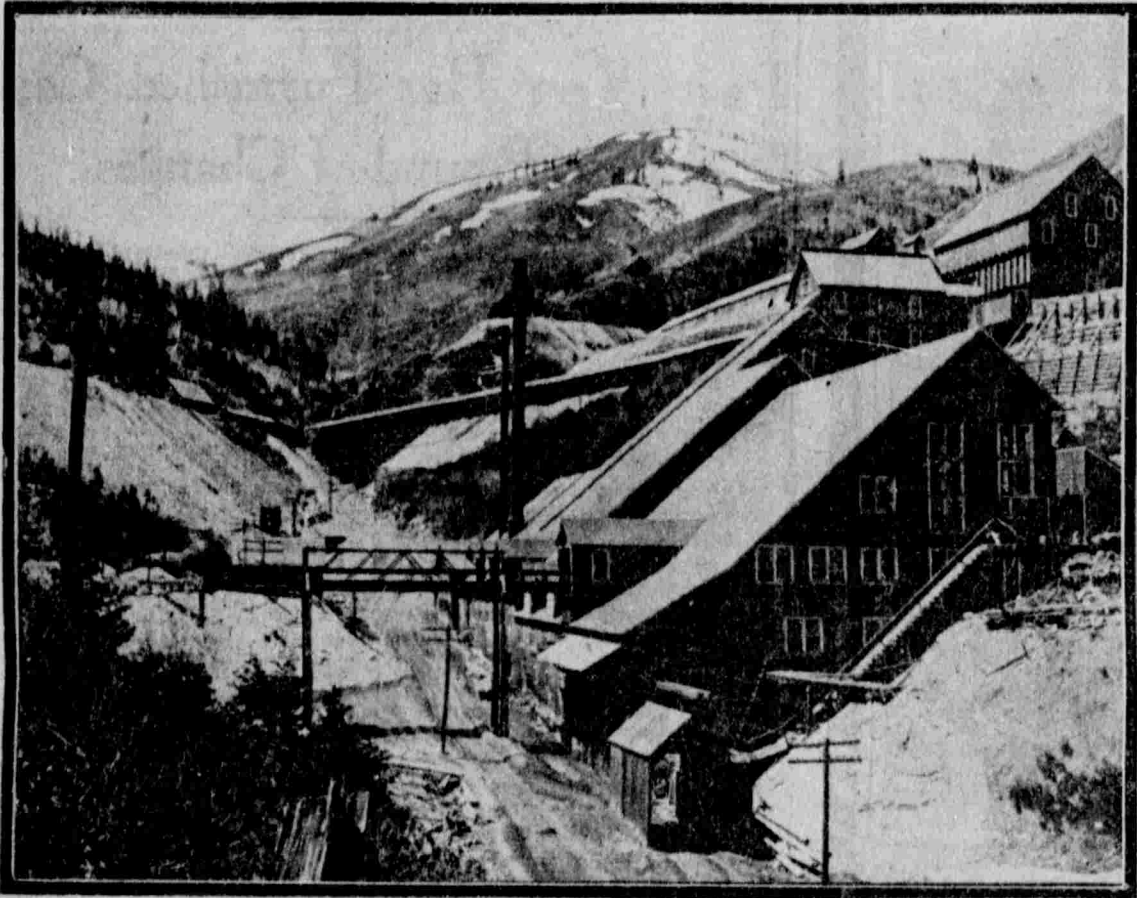


Photo by W. A. Adams.

THE DAILY JUDGE MILL.

concerned over the great task of re-opening the Ontario tunnel again—closed since March, 1905. The Ontario Silver Mining company went at this work hotly soon after the caves occurred and has already expended many thousands of dollars in this most hazardous undertaking. Because of the dangerous character of the work it has been difficult at times to get labor and the men who have taken the chance of losing their lives, have at all times commanded a high wage. At this writing, however, the management is sanguine over the outcome, but it will probably be several weeks yet before they can reasonably expect to overcome the obstacles which have so long been in the way.

The prompt response of shareholders to the call for help soon after the disaster befell them, they goes to show how determined the Ontario company has been throughout this campaign to succeed. The fund derived from the assessment became exhausted several months ago; but in the meantime, development work has been very vigor-

its palmiest days, many Park Cityites are firmly of the opinion that it has not by any means become a "worked out" mine; that when it gets out of the meshes of misfortune things will shape up in such a way that regular dividends will be the order of the day again. The importance to the camp of the drain tunnel can at once be appreciated when attention is called to the fact that its stoppage has prevented such mining concerns as the American Flag, Daily and Daily West from going deeper with their shafts because of the filling up of the zone corresponding to the 600 level of the Ontario mine with water. Until the latter is released, people can only hope for the best and wait.

ON BONANZA FLAT.

Aside from the operations of the Daily Judge and West Quincy companies very little has been accomplished over in the Bonanza Flat region. The West Quincy has been busy with development work and during the past summer introduced the innovation of prospecting below the 600-foot level of the mine with diamond core drills. The experiment has proved very satisfactory so far and is probably the cheapest

to his Mountain Lake property and in driving the tunnel intended to develop both properties, not long ago a splendid body of lead-silver ore was opened in Steamboat ground. In the Mountain Lake some quite extensive ore bodies have already been developed and copper is a conspicuous element in their composition. It is likely that this mine will be the scene of some extensive milling operations at no distant day. In the same vicinity, with ground partly in Snake Creek and partly in Big Cottonwood, is the property owned by Col. N. Treweek of Salt Lake and associates, who recently made it the foundation for the organization of the Big Cottonwood Gold & Copper company. W. D. Egan is developing a group of patented claims not far from the Mountain Lake-Steamboat properties, by driving a tunnel to catch at depth an ore body which showed up with considerable prominence near the surface.

SCOTT HILL LOOKING UP.

Scott Hill, at the head of Thayne's canyon, has been the scene of considerable mining interest during the past few weeks. This is the location of

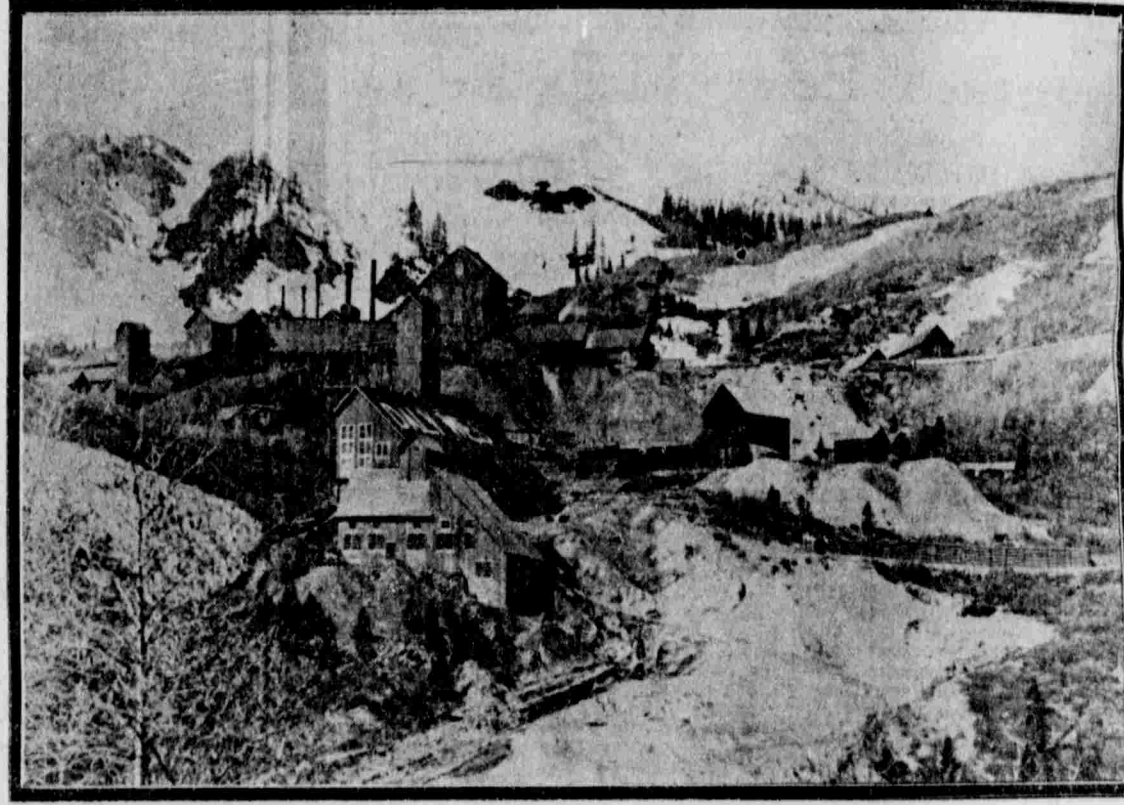


Photo by W. A. Adams.

THE DAILY WEST MINE AND MILL.

the Crescent mines. It has been working steadily and has operated its mill successfully. Nearly in the Silver King Consolidated, now sinking a double compartment shaft to develop its ground.

BIG DAILY WEST.

Although the re-opening of the Ontario drain tunnel has prevented the Daily West Mining company from resuming development and ore extraction from the lower levels of its property, the fact remains that, as compared to a year ago the physical condition of the mine as well as the financial condition of the company is very much improved. The running of a crosscut on the 900 level to intersect the Little Bell contact vein was among the important achievements of the year, as the cutting of this vein has added greatly to the value of the Daily West mine as a producer, the event has not by any means been overshadowed by recent developments on the 1,200 level, where a vein was recently disclosed showing a width of from 10 to 12 feet—all shipping ore. The ore has been followed for some distance and at this writing one raise has been made for more than 100 feet and the second one has just been started. This ore body is considered by the management to be of more importance than the one found on the Little Bell contact. The develop-

earnings have increased.

The Daily West company is the owner of a 20 per cent interest in the capital stock of the Little Bell Mining company now considered to be a valuable asset. Four quarterly dividends of \$108,000 each, or a total of \$432,000, were paid out to shareholders this year. The officers of the company are: J. E. Bamberger, president; William H. Dickson, vice president; W. S. McCormick, treasurer; and Frank J. Hagenbarth and Lazard Kahn, the latter of Ohio, are directors.

A NEW DIVIDEND PAYER.

Great is Daily Judge! The foregoing remark has been heard many times during the past year. But there is no doubt about it being a great mine and those who have made the exclamation, are not mistaken. The developments made in this property during the past year have been most important and within the next few weeks the company will declare its initial dividend—just what it will be has not been determined. However, it will not be less than 10 cents a share—probably more—and thereafter payments will be made quarterly.

The Daily Judge company has made an enviable record and it ought to be a source of much gratification to President John J. Daly to witness the fulfillment of his prediction that the Daily Judge would become one of Park City's

has resulted in opening new ore bodies on the 1,200, 1,400 and 1,500 levels. It is the intention of the Daily Judge company to equip its mine with an electric haulage system and with this object in view a new engine and dynamo has already been installed at the mill.

The officers of the Daily Judge company are the same as they were a year ago. John J. Daly, president; Moylan Cox, vice president; George W. Lambourne, secretary and treasurer; who, with William M. Bradley and H. Otto Hanks, the latter of Cincinnati, constituting the board of directors.

AN APEX CONTROVERSY.

The Magnolia-St. Louis company, which has an apex controversy on with the Silver King, is seeking to prove its contention that its ore has been unlawfully extracted and is suing a shaft. This company recently installed a new hoisting plant, and has already encountered some high grade ore. Below the town of Park City and on the east side of the canyon the Mc. Massey company, controlled by Park City and Iowa people, is developing a property which appears to contain some favorable conditions. The Silver Bell company, operating in Thayne's canyon, has increased its capital stock and has arrangements about completed to do extensive development work in 1907.

Square-Set Timbering in Camp of Bingham.

At present square-set timbering is mainly used in mining the ore bodies at Bingham Canyon, Utah, says Claude T. Rice in a recent contribution. As the ore bodies are mainly replacement deposits in the limestone along mineralizing fissures, the walls of the ore bodies are generally strong except where the limestone has been shattered by faulting. Because of this strength of wall complete filling of the stopes with waste, such as is the practice at Butte, Mont., where in some of the square-set stopes the filling or "gob" is kept within two floors of the roof of the stope, is not required.

LITTLE WASTE.

Consequently the ore bodies of Bingham are mined without much waste filling, thus resembling the open square-set stopes of some of the Leadville mines where the ore also occurs in limestone. Whenever a stope shows signs of a "taking weight" a few square-sets are lagged and waste is dumped into this pen, forming a waste-filled bulkhead which helps materially to steady the stope. These "pen" bulkheads work so satisfactorily that I failed to see any wooden bulkheads such as are used in some of the Boston & Montana mines at Butte.

The chutes are simply plank-lagged square-sets with occasional offsets to break the fall. Owing to the softness of these sulphide ores there is no excessive amount of cutting of the lining of the chutes and consequently neither "bricked" chutes nor the open staggered chutes which characterized the open square-set stopes of the Homo-

stake mine, at Lead, S. D., are necessary. Two-inch planks are used for floors in the stopes. Owing to the strength of the ore and the little tendency it has to scale off, the roof sets of the stope generally do not have to be lagged, another feature which makes the timbering and mining cost in Bingham Canyon square-set stopes much less than at Butte, Montana.

THE SQUARE SET SYSTEM.

However, the mine managers at Bingham have not been quite satisfied with these advantages, but have designed, in order to save timber, a specially framed square-set, which, at least as far as my experience indicates, is peculiar to these mines. This system was first used at the Highland Boy mine of the Utah Consolidated and has later been adopted at the near-by Boston Consolidated mine. It has proved so satisfactory that the same framing of square-sets is used at the Cactus mine at Newhouse, Utah, which like the Boston Consolidated, is under the control of Samuel Newhouse.

On the Comstock Lode the original square-sets were framed, as designed by Philip Deidesheimer, with the horns of the posts butting against those of the posts below. This framing is still retained in the few square-sets used at present on the Comstock. Whether the downward pressure there is greater than the side pressure, as the framing would indicate, I do not know, but I could not help noticing this feature of the framing of the original square-sets which to me at least is unique; for although I have worked in many mines, and visited many more, in which

square-set timbering is used, I have not seen elsewhere this feature of butting the posts against each other.

At Bingham Canyon the sets are designed to offer the greatest resistance to side pressure and so the horns of the caps are caused to butt against each other, the cap being 19x19 inches square. In this butting of the caps there is nothing unusual, but in the sets we have the unique feature of a piece rectangular in section instead of square, the post being 16 inches wide in the direction of the girts and 9 inches wide cap-ways, thus saving an inch in the cross-section of the posts. Moreover, the posts have a bottom and a top end for they are "bald" at the bottom and have only a one-inch horn on top. In consequence of this framing of the post the top mortise made up by the assembling of the caps and girts differs from the bottom mortise, and so there is a top side and bottom side in the clear cap-ways and girts. This confuses the green timber man used to caps without a bottom or top side, but of course this is no valid objection to this square-set. Naturally, it is necessary to have a lemon on the top end of the post on which to rest the caps and girts. As the bottom of the post rests on the caps and girts it does not need to be framed, but it seems to me that it would be just as well to have the top and bottom ends of the posts similarly framed with horns, for then there would be no such complicated arrangement of framing as the present design demands in the caps and girts. True, that would cause an extra pass of the post in the framing of the post, but it would avoid the special framing of a cap only on the top side of the girt. If the similar framing of both ends of the post were adopted the girt would be a plain 6x10 inch timber resembling the girt used by E. A. Helzlsouer at the Corra-Rock Island mine at Butte, Mont., where (if my memory be correct) the girts are plain 6x10 inch and the posts are 10x

10 inch, with horns on both ends, and the caps are 10x10 inch, butting up against one another.

CRITICISM OF THE SYSTEM.

This making of the girt only 6x10 inch, in cross-section appears to be a step in the right direction, for the purpose of the girt or tie, or as it is called in some camps, the brace, is mainly to resist the side movement of the caps and is not to resist any great inward pressure in the stope as is the function of the cap. Consequently the girt does not have to be as strong as the cap. In my opinion it is a waste of timber to make the girts equal in cross-section to the caps.

Another feature that strikes me as worthy of consideration is the fact that although the vertical distance in the clear between the caps and the posts is six feet five inches, the distance in the clear cap-ways and girts ways in the sets is only a little over four feet. It might be possible to increase this distance and effect still more economy in the timbering without endangering the stope, but this last matter of course is a point for men well acquainted with the ground to decide and undoubtedly it has been thought by the Highland Boy management which is noted for its high efficiency. I mentioned the point only because of the striking difference in these dimensions, the clear height of these mines have thought necessary. The only drawback to the girt being as narrow as six inches is the ease with which a floor can be torn up by a heavy blast in the stope, unless the floor is tightly wedged in place, for the floor has only a three inch hold when laid cap-ways. But this, of course, is a very small drawback.

All these timbers are framed at the mills in Oregon and Washington, and are shipped ready to go into the stopes.

Your Grocer has it now

No need for other cereals now—

THE STORY OF THE WHITE HEART

PILLSBURY'S BEST Cereal, Vitos

The white heart of the wheat. A 2 lb. package retailing at 20c, when cooked makes 12 lbs. of dainty creamy white food.

Made by the man who makes "The Flour"

FOR BREAKFAST—Stir slowly one half cup into two and one half cups of boiling water, salt to taste and boil 15 minutes. If too thick add boiling water. Serve hot with cream and sugar. When cold it makes a delicious luncheon dish, fried and served with syrup. Numerous dainty dinner deserts can be prepared with fruit and jelly.