

Removing Utah Mountains By Modern Machinery.

Some people strange things are going on in Bingham just now. The great copper camp is undergoing such a transformation that in a few years the topography of the district will look much different to what it does at present. The great high mountain, which spreads itself out over the domains of the Boston Consolidated and Utah Copper companies, is to come down; the steep slopes are to be opened, the treasure boxes are to be taken to the world, and the metals to be taken from them are to become articles of commerce.

It will be a good many months yet before the actual mining of ores by the shovel, or "glory hole" method, shall begin. Little will be done in that direction before the great concentrating mills of the Boston Consolidated and Utah Copper, now under construction at Garfield, are completed. But there is a lot of preparatory work to do and while the mill builders are busy, the mine managers will employ the shovels in taking the cap off the mountain, or to use the correct mining term for it, the overburden, under which lies the immense ore deposit.

has been used with most gratifying success so far on portions of the mountain, as an assistance to the shovels in moving the overburden. One of the illustrations accompanying shows a terrace of roads built on the mountain side; also the drill as it appears while in operation. The roads were made for convenience in the operation of the well drill and at intervals along them holes are being sunk, later to be loaded with powder and fired. The huge blasts break up the crust of the mountain in such a manner that the work of the shovel is wonderfully facilitated. Several blasts have been discharged and Mr. Cates states that with the shovel following as much as 2,000 tons of earth per shift of 10 hours is being loaded on to the 20-ton capacity cars.

peculiarity of the great Mesabi success, though it is generally so regarded. The development of that somewhat spectacular method on the Mesabi range has been so extensive and rapid that it has come to be regarded as typical of the district. Ore was mined by steam-shovel on older Mesabi ranges long before the Mesabi was discovered, though only in a small way; it was the tremendous tonnages to be handled on the new range, not alone of ore, but of overburden, that caused the development of the steam-shovel in mining as it is at present.

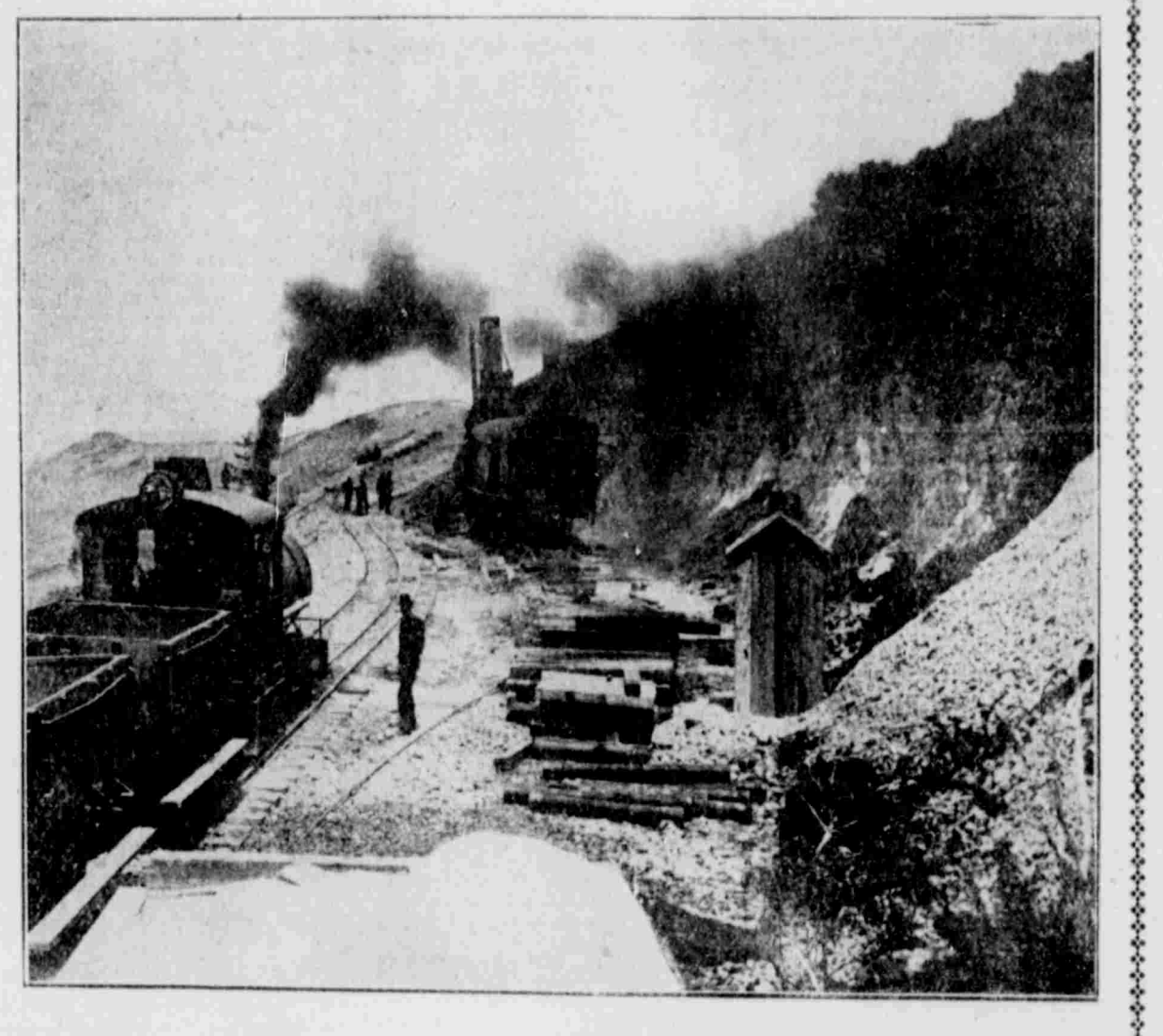
When mine operators were confronted with the problem of opening the flat, comparatively shallow and quite soft ore deposits of the new range, all their previously acquired experience was at a loss. The digging machine, however, was also all to one very important factor of the situation—that there should be ample room to move cars away from the stripping and mining shovels. In other words, that the space on which cars and trains could move must be so great that there would be no serious delays in getting them to the shovels for their loads nor away once loaded. One chief cost in steam-shovel operations has always been that of delay to the shovel itself, caused as it is by skilled and expensive labor, while it is waiting for locomotives to get loaded cars out of the way and while empties are being spotted for their loads.

It is in this very point that the new plans for handling some of the large copper deposits of the west by the shovel still show a weakness, and fail, if they fail at all. For it is one thing to manipulate a train of dump-cars on a level space large enough for the entire train to be moved at once, passed by the shovel, and loaded singly as they pass by; and quite another to get cars to a shovel placed on the side of steep arroyos, where there can hardly be room for turn-outs, and where everything must be handled from one end and over difficult grades.

Beginning with shovels not particularly adapted for the special requirements of the Mesabi situation, built for general mining, the difficulties to be overcome, the entire business has become highly characteristic, and is now as efficient, in all probability, as such a business can well be, considering the necessarily wasteful type of machine used. The shovel itself has become larger and stronger in many straining parts, auxiliary engines for special duties have been added, the booms have been adapted to the requirements of lifting to certain heights, to make a wider sweep, or dumping to a greater distance, and the shovel as a whole has become more and more adapted to the special requirements of the Mesabi ore range. Shovel weighing 105 tons and capable of lifting a dipper-load of six to eight tons, but the majority of machines in use are much smaller and lighter. In the larger order for shovels last fall, the largest ever given by any private concern, the Oliver Iron Mining Co. fixed upon a weight of 30 tons for the machine and a capacity of 2.5 yards in the dipper. A yard of ore weighs about two tons. The Mahoning Ore & Steel Co. used a shovel of about 45 tons weight and 1.75 to 2 yards capacity. Stevenson used a 105-ton shovel and a 3-yard dipper. The majority of stripping and mining contractors in the Mesabi region use a shovel of from 60 to 80 tons weight. In stock-pile loading, a shovel of 100 tons capacity is successfully used. In the early days most of the engines and dump-cars used on the range were narrow gauge; dinky engines and small cars. But this has all been changed and standard-gauge engines and cars are in almost every operation, while the dump-cars are now elaborate affairs, costly, but efficient. In such operations as those on the Mesabi, there is no argument for gauges less than standard, and it is doubtful if there are many places where a



MOUNTAIN'S FACE FURROWED FOR BLASTING.
After Which the Great Shovel Comes Along and Scoops Away the Earth Until the Big Ore Bodies Are Reached.



GIANT STEAM SHOVEL ON RIGHT.
Which in Five Days Cleared Away the Entire Part of the Mountain as Indicated in the Cut Where it is Standing.

mountain as big as those in Bingham?" may be asked. The answer will be: "It is to be blown up with powder." But the pyrotechnics are not all to be pulled off at one time; it may take years, perhaps generations, to complete the job. But the copper kings have willed that at least one of Bingham's highest hills shall be moved away—it is doomed. What powder does not do, steam shovels will.

menze ore deposits containing copper, associated with gold, silver and iron. This "skimming" ordeal has already entailed great expense. It has not only been necessary to spend what would be a huge fortune to some people in the purchase of these big steam shovels, but it has been necessary to build railroads and equip them with locomotives and cars. It is going to cost a whole lot of money to move the overburden away before a dollar comes in return. That part of the undertaking is no small affair and engineers have had to do a whole lot of thinking and figuring to find a way to dispose of it. But the copper companies have been careful to look into these details and have acquired land enough in canyons outside the mineral zone, for a dumping ground. The cars and locomotives, which are to be used in the future to transport ore down to the loading station on the tracks of the Rio Grande Western railroad, will for the present be employed in hauling away the waste.

city cars and moved away. The holes punched into the earth by the well drill are eight inches in diameter and the depth varies according to the thickness of the overburden.

THE GREAT STEAM SHOVELS.
Mining by means of steam shovels is a novelty in this state. Samuel Newhouse and his able corps of lieutenants were the first to introduce them here; the initial attack being on the properties of the Newhouse Mines and Smelters corporation—commonly known as the Cactus copper mine in Beaver county. Mr. Newhouse was the first mining magnate to move on Bingham in the same manner and the accompanying illustrations which were furnished the "News" through the courtesy of Mine Manager Louis S. Cates, gives a good idea of the magnitude of the work which has been recently undertaken by the Boston Consolidated company. Within a few weeks, the Utah Copper company, whose officers were the first to demonstrate that the low grade copper bearing monzonite of the camp could

HUGE OIL WELL DRILL.
An interesting feature in connection with the work of the steam shovels is the part being played in the drama by a huge oil well drill. One of these machines was purchased on recommendation of Mine Manager Cates, and

NOT NEW IN MICHIGAN.
The steam shovel method of mining is no new thing to mining men of certain parts of Michigan, and in the iron ranges of the Mesabi range of Minnesota. There they are in common use. What is being done with them is told interestingly by Dwight E. Woodbridge in a recent issue of the Mining and Scientific Press. In view of the fact that these machines have become a factor in mining in this state and that the late P. L. Kimberly, who put up his own money for the earliest experiments in the north, gives it a tinge of local color. Mr. Kimberly, it will be remembered, was actively identified with mining affairs in this state up to the time of his death, being a heavy shareholder in the Annie Laurie mine in the Gold Mountain district, the Honerite of Stockton, and also the Bingham Consolidated. He also owned considerable Boston Consolidated and Utah Copper, early realizing the opportunities for money making in Bingham mines of those companies. In his article Mr. Woodbridge says:

much animus Wednesday afternoon when a reporter approached him seeking an interview. Rockefeller was near the common highway. For a moment it seemed as if the millionaire would choke with indignation. Finally he got some check on his feelings, and he exclaimed: "This is the height of impertinence, sir! Get off my property at once." With a wave of his hand Rockefeller brought three of his guards from behind trees, but it was not until an hour later when a reporter photographer approached the lodge that the latter had chance of showing Rockefeller their prowess. The photographer had wandered close to the house in the most guileless fashion, when he was seized by the man of millions. Rockefeller gave a signal, and again three trustees started out. At their threatening cries the photographer became aware of his danger and fled. There was a hot pursuit, but the quarry was captured at a rustic stable. The photographer was dragged down, soundly thumped and then was held by two of the men, while a third jumped on the camera. Rockefeller looked on from a distance and appeared to smile.

There is a worse pest than photographers in and around Pitch Pine lodge at present, and the strong arm hirelings are helpless before it. Mosquitoes swarm over the place and the natives wonder how the family can live there. The mosquito always has been the one great drawback to the lodge. In former years Luke slew millions by running oil over the wet spots, but there is stinging irony in the fact that not a drop of oil was spilled for the coming of the "king's" heir. Among the village there is betting as to the length of time the Rockefeller will stand against the plague. Mrs. Rockefeller and her baby son have remained close indoors, while her young husband and his little girl move fearfully about the garden and lawn, always with the guards hanging conveniently around.

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ADDICKS STILL A POLITICAL FACTOR.
Despite the recent breaking of the senatorial dead-lock in Delaware the little state is still a political storm center and though defeated after a fight extending over 12 years, J. Edward Addicks has lost none of his love for political fray. Addicks is at present drawing his scattered forces about him with a view to crushing the ambitions of Senator Allee who is engaged in a struggle to succeed himself in 1907.

John D. III Guarded by Eight Men.
Beverly Farms, Mass.—Eight men are guarding John D. Rockefeller III, who has just cut his first tooth. But there is little chance of any kidnappers getting near the infant, for the force is divided—three men for the interior of the lodge and five for the grounds surrounding it.

Are Toothpicks Bad Form?
"I ran over in May for the London season," said a globe trotter. "On the boat was a pretty widow from Altoona who disgusted and amused all hands on duty by saying: 'I am surprised that a fast and expensive boat like this should fail to supply us with toothpicks.' 'She thought toothpicks indispensable, like napkins or forks. For thinking so we set her down as a hecker. But wait! I dined during the season at Prince's, in Piccadilly; and at the Savoy, in the room that overlooks the

OGDEN CANYON
Excursion Sunday, July 22nd.
Via Oregon Short Line. Round trip to Ogden, \$1.00. Trains leave Salt Lake at 7:30 or 10:30 a. m. or 1:30, 4:30 or 6:30 p. m. Returning leave Ogden at 4:10 and 6:20 p. m. and special at 10:30 p. m. for the benefit of those who desire to spend the whole day in the canyon. Street now operated to mouth of canyon. Trout and chicken dinner at the Hermitage.

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VARIED POLITICAL OPINIONS OF IDAHO EDITORS.
(Continued from page twenty-four.)

chance in the world for political expediency and all kinds of trickery to be practiced. With the nominations made open-handed and above board in the convention, the party is responsible for the man who is put before the public, so that is comes as near being an election of United States senator by direct votes as is possible under the present provisions of the constitution, and yet it leaves a greater freedom of choice for members of the legislature in local issues.—Idaho Falls Times.

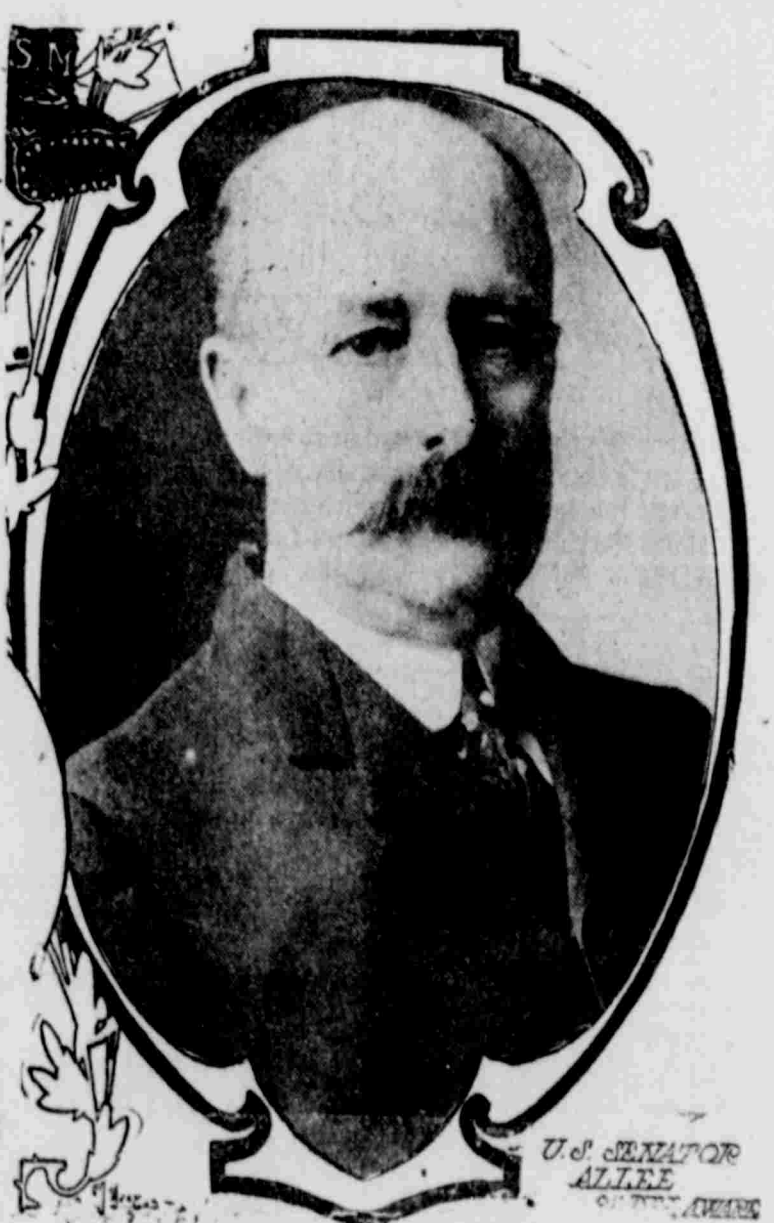
"Points With Pride."
Idaho can point with pride to Congressmen French in Congress, and we feel that we voice the sentiment of a majority of the people of Idaho, in the hope that he will be unanimously re-nominated and elected to succeed himself.—Owyhee Nuggett.

Modest Editor.
The Maverick of Mountainhome "sends" the World editor for U. S. senate. Yes, that would save the republic, but we refuse to take it unless the state convention makes us the nominee. You see, we would be a very good senator if nominated in convention, but a very bad one if nominated by the legislature.—Weiser World.

Somebody is Sore.
It would not be a bad idea for men who have been promised an office by the Gooding-Brady combine, to get together and see how many have been named the same position. The combine is on its last legs, and a desperate case requires desperate remedies. Nothing that might aid these political hangers-on will be left undone. Men who have listened to pledges and promises that the pledges never intended to fulfill could save themselves humiliation by turning down the combine now before the people turn it down later.—Boise Capital News.

This is Unkind.
Dr. Hugh France, of Wardner, Idaho, is a candidate for gubernatorial honors in the Panhandle state. If there is any show on earth for the doctor to acquire his ambition, the people of Idaho would be deserving of a spray of Paris green. Hugh France is the limit.—Portland Press.

U.S. SENATOR ALLEE
CALLED FOR



Dr. Hush France, of Wardner, Idaho, is a candidate for gubernatorial honors in the Panhandle state. If there is any show on earth for the doctor to acquire his ambition, the people of Idaho would be deserving of a spray of Paris green. Hugh France is the limit.—Portland Press.

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