

mineral is got on the Sillar and Stall principle. The angle of inclination varies much—being greater at the south than at the north limit, say from 2 degrees n. to 20 degree s., and the center of the best coal is at No. 5 section and onward thence to the eastern limit.

Within the marginal limits above described we have an average workable seam of about 12 feet thick, which is slightly interstratified with "bastard fire clay" and a common dark slate-shale clay, neither of which can be used for public good, and both make much against the interest of the work and more or less deteriorate the marketable value of the mineral. In consequence of this the thickness of the seam may be limited to ten feet of clean coal. Ten feet of clean coal with a specific gravity of 1.36 would give 15,192.52 tons per acre; less one-tenth an allowance made for loss in working and one-tenth for fine dust would leave a marketable quantity of 12,305.98 tons per acre, and if that product be multiplied by 25,600, it would equal the entire amount of 315,083,088 tons within the area of 40 square miles—the limit above stated.

It is generally considered that good screen coal is worth two-thirds the value of the best coal, and when the best and finer coals are sold in a mixed state, or in what is commonly understood as unscreened coal, a medium price is obtained. There are some seams that contain two or three different qualities of coal, which invariably cost a little more for separation than for clean coal only, of house, steam and forge.

The Almy coal seam gives off two gases from the measures it contains, namely methyletic hydrid (H_4C) and carbonic dioxide ($C.O_2$). The former is given off from the upper section and the latter from the lower section. In addition to these, carbonic oxide and ethylene are given off from an exploded charge of gunpowder. The latter is also given off from a squeeze or pressure, and is the most subtle gaseous fluid of the mine. Its density is 0.979 and it is always found near the floor of the mine. Where fine refused coal and other loose combustible debris are stored away in the rooms and old workings the gas is sure to find an abiding place, and if not dislodged by a complete cleaning out of the waste material, there will be a fire as sure as there is a mine. This gas is one of the hydro-carbons (H_4C_2) and forms 4-6 per cent of coal gas, to which the gas is indebted for its great amount of luminosity. But it is not a supporter of combustion, and although it will explode or burn when brought in contact with a naked light, there is little or no danger of a large gas explosion in the mine by it. Gas explosions in mines arise from a combustion of methyletic hydride and common air in the proportion of one of the former to eight or ten of the latter; and when the proportions are one of the former to fifteen of the latter the proportions are then beyond the explosive point, and still then fit to breathe. The ventilation is considered to be in a proper sanitary condition in the mine when the proportions are one of gas to thirty of air. More anon.

R. R. H.

P. S.—The C. P. order was counter-

manded and the mines resume work on the 25th inst. instead of the 11th. Twenty-three more workmen have gone from here—some to Castle Gate and the others to Colorado and Rock Springs, and two more for Scotland. All leave their families here.

A LAND OF MYSTERY.

One of the most peculiar and interesting places on the American continent says the *San Francisco Chronicle*, is just being opened up. The section lies across the diagonal line that forms the southern boundary of the State of Nevada, spreading into California and reaching almost to the line of the Atlantic and Pacific Railroad. The old '49ers passed through this section during the California gold excitement. Many perished from thirst, and the remains of their wagons, such as the tires and other iron parts, may be found strewn about the valleys.

Near Resting Springs a man by the name of Lee has a ranch, an Indian wife and a family of eight children. Not far from there is what is believed to be the famous Gunsight mine. One of the pioneers, in passing through that section, poked up a piece of lead, almost pure, and made a sight for his gun with it.

It was so rich that when he told the story in civilization prospectors started out to locate it. The fact of the similarity of all the valleys led many astray and they perished from thirst. His description of the spot applied to so many spots that no one has ever been able to accurately locate the mine, but the present owners believe they have found it.

The valley adjoining that which is the route of the Nevada Southern is called Pahrump. It is described by the *Denver Republican* as the principal one of them all for gold and silver and lead miner. Up in the valley, which is one of those dry, barrens and gulches between two perpendicular walls of rock, is the Mesquite stamp mill. On one side is the Keystone gold mines, from which \$90,000 has been extracted. Up at the head of the valley is the Montgomery gold district. Several miles above the mill is the Pahrump springs, where a hardy pioneer has settled in a beautiful oasis and reared a family.

Those who have visited the family say that away off there, imprisoned by canyon walls and sandy deserts, is the most beautiful woman in the west. She is one of nature's queens, and her fame for beauty is spreading quite rapidly since grim civilization placed his foot on the Pahrump valley.

The Pahrump valley has not been noted for its civilization. A band of renegade Indians—a mixture of the Mojaves, Chingowayras and Piutes, all of which inhabit that country—have settled in it. They once had a chief, and when he died his son was the candidate for chieftanship. The tribe did not want him and would not elect him, so they went without a head, but not for long. Tecopa stepped into the job and has since held it, and is looked up to as the chief. Chief Tecopa's attire consists of a plug hat and an old striped shirt. Once in a while he wears trousers, but very seldom.

When Mr. Blake went there Chief

Tecopa said that he owned all that country, and that his consent was necessary before any railroads could be built. His consent could be bought for a plug hat and a red striped shirt. These being promised over the pipe, Tecopa allowed the white chief to proceed with his railroad.

SOCIAL AMENITIES.

AMERICAN FORK, Jan. 17. — The Old Folks' annual party came off in the Theater hall here today, (Jan. 17th) and, as usual, was a very creditable and pleasant affair. Dinner was served at noon, and judging from the quantity and quality of the good things provided, the rumor of hard times had better keep quiet and give us a rest, as everything necessary was up to its former standard of excellence.

After dinner the afternoon was spent in rendering an impromptu program of entertainment, consisting of speech-making, songs, recitations, and other means of amusement befitting the occasion. An interval in the proceedings was used for the purpose of distributing fruits, candles, cake and other good things, so that all might be made to feel as comfortable and happy as possible.

The committees and all concerned, deserve the highest praise and commendation for their prompt and efficient services.

We were pleased to have with us our old time friends Geo. Goddard, William C. Dunbar, C. R. Savage and Nelson A. Empey, with their wives and friends, whose pleasing humor and comforting words lent variety and zest to the exercises of the hour. All passed off splendidly, and our old friends retired smiling all over, amid showers of kind wishes and fond congratulations.

A party in the evening, composed of committees, widows, missionaries' wives, our friends from Salt Lake and other worthy ones, concluded the exercises of the day. And thus another bright mark has been made on Time's vast record by the kind-hearted citizens of American Fork, of which they have great cause to be proud and thankful.

J. C.

A SURPRISE ON THE BISHOP.

WOODLAND WARD, Summit county, Jan. 4, 1893. — The sisters of the Relief society, with their husbands, met at the home of Bishop Ephraim Lambert today to surprise him. They followed him home from fast meeting with their baskets of picnic. After dinner the rest of the day was spent in speeches, songs and recitations. After an enjoyable time all returned home, hoping to have many such good times. L. B.

The Nebo Salt company of Nephi has written the following letter, which is self-explanatory, to the local Mid-winter Fair committee:

"Your letter to hand and in reply will say that a space 2x4 will not hold us. We would, therefore, prefer to stay at home. If we cannot go to the Fair and be seen we do not go at all. We have the best salt and the best building stone in the world, and the idea of placing it in a space 2x4 is an insult to the industry."