

THE ANACONDA FIRE.

The great fire in the Anaconda and St. Lawrence mines, Butte, Montana, or, rather, between those mines, which broke out Nov. 27th, when seven men perished in the mine, is still burning and all underground work is suspended. This gigantic mine is a wilderness of timber. Eighty thousand feet a day went into its various tunnels, levels and shafts. The mine probably contains a hundred million feet of timber, a good share of which is dry and inflammable. Where the fire is raging the timber is perfectly dry. Five hundred feet below, on the 1,000 foot level, there is probably enough moisture to dampen the wood, but not above that. The public generally have an idea that water is constantly dripping from the walls of a mine. This will apply only to the lower levels of the Butte mines. The upper levels are sometimes as dry as a parlor floor. After timber is placed in a mine and remains there for several years, it becomes dry and spongy, and sometimes dry rot sets in. This is the result of lack of ventilation. The fire was probably caused by some careless miner who stuck his candle where the flame could reach this dry wood, says a Montana exchange, where the fire is now burning is a perfect forest of timber that may take a year to burn out, or it may smoulder for a number of years.

The fire in the Calumet and Hecla, in Michigan, took a year to extinguish, while for twenty years a fire has been smouldering in one of the Comstock, Nevada, mines. Smoke makes it impossible to fight the fire with hose and water. It must be done by bulkheading, which will prevent fresh air from reaching it, or by running a pipe through the bulkhead and forcing carbonic gas through the pipe. The fire in this instance will probably be confined to the levels and stopes between the Anaconda and St. Lawrence mines. This embraces a space over 60 feet long, 100 to 150 feet high, and several hundred feet wide. Most of this ground is worked out, and is not of absolute necessity for the extraction of ore. But until the fire and smoke are removed, they will prevent the lower levels being reached, and if the fire continues it will be necessary to sink new shafts on both the Anaconda and St. Lawrence properties. The Anaconda smelter will not, however, be without ore, as the company has a number of mines, some of which have not been worked of late, which will afford a supply sufficient to keep the smelter running until either the fire is extinguished or the new shafts are completed. As the Anaconda company has a large amount of copper on hand it may determine to close down the mines and smelter, and thus advance the price of its present holdings. The Anaconda mine is lighted by the most expensive system of electric lights used in any mine in the world. The machinery is in duplicate, so that if an accident should happen to any of it, the necessary part could be immediately supplied. In the stopes, however, and also where the Burleigh drills are being worked, it is necessary to use candles, as the blasting would shatter the electric lights. It was one of these candles probably, through the carelessness of some miner, that started a fire which will result in a loss to the Anaconda company of perhaps a million dollars.

IRRIGATION ESTIMATES.

Major Powell, chief of the federal commission to investigate the question of the irrigation of arid lands and to recommend the best scheme for accomplishing that purpose, read a paper on the subject before the New York chamber of commerce last week. He began with the statement that about half the lands of the United States, exclusive of Alaska, are arid. These lands, so far as they can be brought under cultivation by irrigation, are the best in the country, because the crops are cer-

tain, not being subject to the changes of extreme wet and dry seasons, as in the case of lands dependent upon rain. Of 1,000,000,000 acres of land in the United States about 6,000,000 are now under cultivation by irrigation, and about 120,000,000 altogether can be rendered arable by that method. Major Powell estimates that the construction of reservoirs, canals and other works necessary will cost at the rate of \$10 an acre. Assuming that 100,000,000 acres are to be redeemed in this way, the cost will aggregate \$1,000,000,000. When storage reservoirs and irrigating canals are completed vast water powers will be created, suitable for manufacturing purposes. These will exist at points on canals higher up than those at which waters are to be taken for irrigation. The government, Major Powell says, should not be allowed to furnish any money for the completion of this great system of works for the preservation of the forests and parceling out of the water. Many thousand men will be necessary, and to put this matter in the hands of the government would be to build up a bureaucracy and an army of officials. He thought the government should only furnish wise laws to control the operations of this work. The people would naturally combine by hydrographic basins, that is, in the territory covered by a single stream and its tributaries within a single watershed. Courts should be established to adjudicate upon all questions arising from this condition of affairs, though the government itself should apportion the water among the different states in each district. Major Powell suggests that the money for carrying out these great schemes might be raised by the issuance of community bonds or other similar method.

THE BOISE BASIN.

Recent rains and warm weather in Idaho have thawed out the ground, which fact is welcomed by Boise county, says the *Idaho World*, in speaking of next season's prospects for mining in the basin. During the winter the snow will thaw from the bottom and the water soak into the ground, which will insure a good placer mining season, the first one for three years. With plenty of water for the placer mines, so that the usual amount of gold dust can be extracted, the development of quartz mines discovered during the past year, with statehood in view to encourage capital from abroad, with the operation of the mills now running and ready to run and the erection of new ones, Boise county will advance much more rapidly than heretofore. Thousands of dollars will be taken out of the placers, the mills in operation are all yielding handsomely, the Bedrock flume enterprise will be pushed, more machinery will be erected, and croakers will be deprived of their only occupation. The accessions to our population during the past few years are men who are thorough miners and prospectors and have a great deal of energy and perseverance. They all pronounce this section of Idaho a great mineral belt that affords splendid opportunities both for the prospector and capitalist. Quartz veins are more numerous than in any section they have before visited, and they say that to develop a large number of valuable gold and silver mines only requires prospecting in a more careful and systematic manner; hence, prospecting by tunnels and shafts is gaining in favor. We look forward to the coming year as the most prosperous for Boise county since the great excitement that passed off with the sixties. This prosperity is coming through the quartz mines, which, it may be said, are yet in their infancy. Capital is beginning to find out that we have the mines, and is now looking for the most desirable properties. When spring opens more miners will be needed and our population will increase more rapidly than heretofore.