

CASTLE, MONTANA.

The superior grade of the immense lodes of ore that have been disclosed around Castle, Montana, and the large number of new mines constantly being opened, have attracted great attention to that district. In 1886 the principal mines were located and in June, 1887, the first houses were built. During the latter part of that summer the fame of the discoveries made brought many prospectors and other people to Castle. The town has since then kept gradually increasing in population, until now it numbers about 600 inhabitants. It is situated in a canyon near the summit of the Belt mountains, at an altitude of about 6,150 feet, in the southern portion of Meagher county, about fifty-one miles northeast of Townsend, and sixty miles north of Livingston, and is connected with both places by stage. The title to the land upon which the town is built was secured under the Federal Townsite Act and the site comprises eighty acres.

All the veins discovered in this district appear to be contact veins. In the Cumberland, the vein lies between dolomite, and a blue, compact limestone. At the surface it appeared a large vein, or deposit, of carbonates about seven or eight feet wide, mostly covered with a cap of silicate of iron, which has proved to be the usual covering of all the outcrop veins. A shaft has been sunk 500 feet, at the bottom of which is a body of ore seventy-one feet in width, averaging from \$25 to \$300 in silver, thirty to seventy per cent. in lead, seventeen per cent. of iron, and about seven per cent. of silica, making it one of the best fluxing ores yet discovered in the United States. It seems the general characteristic of the ledges in this district, is that the deeper they are worked, the larger the ore bodies and the richer the mineral. This company is erecting a hoisting plant, at a cost of \$30,000, capable of operating to a depth of 1,200 feet. This mine has now a capacity of 100 tons of ore per day.

Another of the chief producing mines is the Yellowstone. It possesses a true contact vein, between dolomite and porphyry. This lead showed a surface width of eight feet of carbonates, while on the lower levels an ore body has been encountered, thirty-five feet in width, that averages \$20 in silver and forty per cent. in lead. Hard and soft carbonates constitute the chief part of the vein. This company possesses the only smelting plant in the district. It has a capacity of forty tons per day, but because of excessive freight charges and the near approach of the railroad, the smelter is not in operation. The California is a rich gold-producing property. Two parallel veins have been discovered in this mine, one of which contains principally carbonates and iron manganese, the other oxide of iron. This vein, at a depth of 100 feet is fourteen feet in width. The American has a vein between porphyry and granite, and is from five to six feet in width. This ore is principally sulphuret, although carbonates are blended with it. The lowest depth reached by one of the three shafts is sixty-five feet. The ore is considered the richest yet discovered in the camp. The Great Eastern is another of the good producers. In the lower workings a pay body has been found averaging ten feet in thickness. Ore has been shipped to Aurora, Illinois, that netted \$27 per ton after the freight and working charges were deducted. The Princess possesses a contact vein that lies between limestone and granite. It is four feet in width and will average \$40 in silver and from fifty to sixty-five per cent. lead. A shaft has been sunk to a depth of 120 feet.

Among the other mines in which large bodies of ore have been discovered are the Silver Belt, Hidden Treasure, Judge, Alice, Black Hawk, Legal Tender, Felix, Top and Great Western. There are many other properties here which are favorably situated, and in which good ore has been found. Some of

these are expected to become large producers. Among them are the Jumbo, Keystone, Powderly, Crescent, Star, Little Dot, Hamden, Solid Silver, Merrimac, Windsor and W. A. Kelly.

One of the features of the camp is the incorporation of all of the leading mining properties. It is claimed that fifty mining companies have been organized since last April. The men who located these mines, were in most instances poor, and by placing their properties in incorporated companies, they were able to prosecute their development work and still maintain large interests in them. Nearly all the stock is held in Meagher county. Some of these stocks have wonderfully increased in value, such as the Cumberland, Yellowstone and California.

Surveyors of the Northern Pacific are now in the field locating a line that will connect Castle with Livingston. It is the hope of the people that this season will witness the beginning of the work of construction. Upon its completion, few places in Montana will afford better business opportunities than Castle. In its mines immense bodies of easily worked ores are being constantly disclosed, and within the boundaries of this mineral district all that is needed for the reduction of the ores is found in large quantities, such as a fine coking coal, an excellent grade of fluxing iron, and an abundance of timber. The Castle Water Company is putting in a water system at the cost of \$40,000. The supply will be ample for all domestic, fire and manufacturing purposes.

Ship building is a profitable and growing industry on the Pacific coast, and while there are no large plants for iron and steel vessels north of San Francisco, there are many yards where wooden ships and steamers of large size are constructed. During the past year the yards at Astoria, at Portland, and other points on the Columbia river have all been busy and have turned out several fine vessels and steamers, while others are still on their ways. Portland has turned out two large and elegant steamers and numerous smaller vessels, and several steamers have been built in the inland waters east of the mountains. The yards at the coast ports and on the waters of Puget sound have been equally as actively employed. At Port Blakeley, Hall Brothers have finished two or three during the season, and still have under way at their yard two four-masted schooners and a bark. At Hood's canal the steam launch, *Nellie McHenry*, has just been built and is now having machinery placed in her. She will be run on Hood's canal for business and pleasure. At John Holland's yard, at Salmon bay, is the magnificent steamer, *Bailey Gatzert*, which is having its machinery placed and will then run between Seattle and Tacoma. Clark & Carse's new propeller is also being built at Salmon bay, and will soon be completed. At Lake's shipyard, Captain Lake is having a staunch tug boat built, which would have been in service ere this, but for the delay of securing its machinery. At Tacoma and Seattle the yards are kept full of new and repair work. At the former a small schooner has just been built and is now receiving finishing touches. At the Union City yard the Union City Mill Company is having a steamer built. She will be 130 feet long, will be built with speed in view, and will run between Union City and Seattle. There are many others at various places along the coast waters from which no detailed reports have been made. Taking all things into consideration, good progress has been made in ship building, while the increase in trade and commerce is continually calling for increased capital and enlarged plants for the more successful workings of that growing industry.

The citizens of Burns, Oregon, have voted to build a new \$10,000 school house.