

Mining and Scientific Press, V. 40, 4/24/1880, p. 264

Land Slides in the Hydraulic Mines of Placer County.

The storm last week was very destructive in its effects in some of the big gravel mines. Land slides were very numerous and caused more damage than usual. On the Forest Hill divide, several are reported.

On the evening of the 14th instant a slide occurred in the Dardanelles mine. About ten days previous, in the same mine, a slide, estimated to contain 200,000 cubic yards of earth coming from the face of a bank 400 feet high, had destroyed about 500 feet of 22-inch pipe and buried one of the giants. The slide mentioned above passed over the surface of this one, choked up one of the outlet tunnels, destroyed 200 feet of pipe and demolished the lodging house which stood 700 feet from the original face of the bank. Some of the men barely made their escape before the house was struck. But little delay in working the mine will be caused by the slides.

The most destructive slide on the Divide was the breaking away of the bank in the claim of Harry Adams, about three miles from Forest Hill, on the 12th instant. About 500,000 cubic yards of earth broke from the face of a bank 300 feet high, destroyed the giant and considerable 15-inch pipe, and as it swept down the canyon carried away and wrecked six undercurrents and the blacksmith shop. This mine was just ready to clean up and all the gold is lost, temporarily at least, by the destruction of sluices and undercurrents.

Breece & Wheeler's claim also had its slide, which filled up the claim to the rim rock. Their ditch is also somewhat injured.

Several other minor slides have occurred, and the banks are in such condition that others are liable to come at any time. Though the season's work will be more or less retarded, the breaking up of the immense masses of barren cement and volcanic detritus which overlie the pay gravel will result in a considerable saving to the miners.

Mining and Scientific Press, V. 40, 4/24/1880, p. 264

The suit between the Dardanelles and Mayflower mining companies is on trial for the third time in the Superior Court of Placer county, before Judge Williams, of El Dorado. Whichever wins, it is probable that the Supreme Court will be called on to adjudicate the case.

Mining and Scientific Press, V. 40, 5/15/1880, p. 312

The Hidden Treasure drifting mine at Sunny South has just been sold to an English company—the price understood to have been paid being \$245,000.

Breece & Wheeler's claim—the Paragon mine—at Bath, is working over 40 men in the drifts. It is reported that this mine is also soon to be sold to an English company—the price it is said being \$300,000.

The above two noted mines are among the richest in California and have made large fortunes for their respective owners. In both the whole mass of gravel, from the surface down, contains gold, while that portion immediately overlying the bedrock is extremely rich in coarse channel gold. As an illustration of the latter, some time since in Breece & Wheeler's claim a timber was removed which rested on the gravel lying in a depression of the bedrock. This dirt was then washed and yielded \$800, principally in large nuggets.

Pond's ditch, 60 feet of which went into Breece & Wheeler's pit in one of the recent slides, has been repaired by a flume around the break.

Mining and Scientific Press, V. 41, 8/14/1880, p. 101

Rich Gravel.—Auburn Herald, Aug. 7; We understand that McGillivray has struck some very rich gravel in the Dardanelles claim, near Forest hill, and at the close of the water season, which will be very soon, contemplates drifting. Once thoroughly opened up, there are undoubtedly some very rich gravel channels in the Forest Hill ridge.

The Breece and Wheeler mine is shut down for the purpose of repairing the mill and machinery.

Mining and Scientific Press, V. 41, 8/21/1880, p. 117

Dardanelles---- Auburn Herald, Aug. 7; The strike recently made in this mine turns out richer than we indicated last week in the channel visible to the naked eye. On a pretty thorough prospect it turned out from about 75 cents to \$3 to the pan to the pan. This is nearly or quite equal to the Breece & Wheeler drift claim, the yield of which might, with propriety be termed fabulous.

Mining and Scientific Press, V. 42, 3/26/1881, p. 197

Dull at Forest Hill.—Cor. Placer Argus, Mar. 19: Messrs. Breece & Wheeler have re-employed several men in their mine, thereby brightening many gloomy countenances and cheering many desponding hearts; for how are they to maintain homes and families without work? Should Breece & Wheeler promptly extend their developments, and Chappellet and McGillivray adjust their differences and amicably resume operations, the prospect will, of course, be brighter and more encouraging. Still, I believe we are destined to encounter a duller season than during any previous year, though hoping I may be mistaken

The Dardanelles, one of the largest mines on the divide, is again in full blast. About 60 men are employed. This mine has not, been fully worked this winter, on account of, when the heavy storm came, over 600 ft of the ditch sliding away. This they had to flume, which was completed last Friday.

Mining and Scientific Press, V. 42, 6/25/1881, p. 425

Drifting: on the Dardanelles.—Placer Herald, June 18: The Dardanelles Co. has opened up several breasts in the ground over the Vigilance tunnel from which come some very flattering reports. Not more than 40 carloads per "day are being taken out yet, but in a week or 10 days they will be running out about 100. The yield at present is from \$2 ½ to \$4 a load. Prospect drifts have been run back into ground that prospects from \$2 to \$10 a pan. Into this a bedrock tunnel is now being run and in about 30 days breast will be opened.

Mining and Scientific Press, V. 43, 8/20/1881, p. 117

Forest Hill Note.—Placer Times, Aug. 13: The Dardanelles Co. are putting a number of men to work in their mine, good pay dirt having recently been struck.

Mining and Scientific Press, V. 45, 1/6/1883, p. 5

Forest Hill Cor. Placer Herald, Dec. 89: Our mines seem to have caught the infection, the Paragon, which a year ago employed 40 men, now only gives employment to 11. The Napoleon, in which 20 earned their daily bread, shut down two months ago. Or rather the men quit work, as nearly two months' pay was due them. It looked doubtful whether it will be started again. The

Mayflower and Dardanelles are waiting for water, but thanks to the owners of the Missouri tunnel. Excelsior shaft and the Imperial flume at Shirt Tail for their patience and perseverance. That their efforts may be crowned with success is the sincere wish of all in our community. The Baker Divide mine deserves honorable mention.

Mining and Scientific Press, V. 46, 5/5/1883, p. 309

Forest Hill.—Cor. Placer Herald, April 20: As the mining industry is the most important hereabouts, that is what we first inquire into. The Excelsior Co. has been idle since the first of the month waiting the arrival of some of the owners, when arrangements will probably be made to sink a prospecting shaft on the Campbell ranch, then both shafts will be running at one time. At the Paragon, Messrs. Breece and Wheeler are driving ahead their bed-rock tunnel and with a few men are prospecting for the lead which was lost last summer. It seems strange that such a good paying channel should have stopped short all at once, but hopes are entertained that they will soon come on to it again. Messrs. Clark & Bequette are still working ahead with a large force of men. They are opening a very nice breast of gravel. In company with representatives of the Mayflower Co., I had the pleasure of going through the mine and saw some very nice looking gravel. The mine is being worked with a very large force of men. There are about 40 attending to the piping, etc., and 10 engaged sinking the new shaft. It is now about 150 ft deep. On Monday gravel was struck of a fair looking grade. It continues to improve in appearance the deeper they go, and is quite hard, which augurs well. All interested in the mine feel very much elated. Over on Bush) the Adams Bros. hydraulic claim with a crew of seven men. One day last week a 40-ounce piece of gold was picked up in Grinnell's diggings at Bath. Such pieces are rare and not often found now.

Mining and Scientific Press, V. 46, 5/19/1883, p. 340

The May Flower mine at Forest hill is doing first rate, and the superintendent Mr. Chappellet, feels much elated, so we are told, at the uncommonly good prospects since the striking of a bed of soft gravel the other day. We don't feel at liberty to say much about the value of the periodical clean-ups made at this or any other mine, but it is not long since it was found necessary to send an armed escort to Auburn in company with a messenger who brought down several thousand dollars worth of May flower bullion.

Mining and Scientific Press, V. 47, 9/8/1883, p. 148

Forest-Hill.—Mr. S. S. Willard, of Forest Hill, is about to open his quartz mine in good shape. A shaft is being sunk, and a new hoisting works and boarding house will be erected forthwith. The mine, which is called the San Francisco, is near the May Flower.

Mining and Scientific Press, V. 47, 9/15/1883, p. 168

In Placer county, just at present, there is no hydraulic mining going on, and mining matters are not very brisk. The Gold Blossom mine is being worked as usual, and is paying well. The Belmont is sinking a shaft and running drifts. The Morning Star is taking out and crushing ore that is paying from \$17 to \$20. There is a large body of that grade of ore at the depth of 300 feet. This is one of the most promising mines in the region. The Mayflower (drift and hydraulic), at Forest Hill, has a fine body of cement gravel at their shaft, where they are putting up hoisting works. The mine is now being worked by the drifting process. At the Succor Flat drift mine, near

Iowa Hill, they have just completed sinking an air shaft 320 feet deep, by which means they will be enabled to put a large force of men at work, and take out a large amount of gravel. With only four men, they have averaged four ounces a day. The mine is a very good one. The tunnel is in 2,000 feet. These points we obtained in a conversation this week with Mr. R. L. Dunn of Auburn.

Mining and Scientific Press, V. 47, 11/10/1883, p. 300

Forest Hill.—Argus, Nov. 1: The upper part of the Forest Hill divide will be a lively mining region next year, judging by the accounts we hear, not only of the big prospects, but of the big pay in the new mines. Mining matters seem booming. The Mayflower Co. are making extensive improvements on their claim. They have just completed fine hoisting works and are commencing a stamp-mill.

Bath.—Herald, Nov. 3: Breece & Wheeler, who for a while lost the channel in their mine at Bath, have struck it again, and are now taking out pay as big as ever. All over the Forest Hill and Iowa Hill divides the mining outlook seems better than it has for years.

Mining and Scientific Press, V. 48, 1/5/1884, p. 4

Forest Hill.—Placer Herald, Dec. 29: The Mayflower M. Co. started up their new lo stamp mill last Saturday. It is working splendidly. The Breece & Wheeler diggings are taking out some fine gravel, some of it yielding as high as \$10 to the pan, but the gravel is getting lower than the tunnel thus making it more difficult to take out. The Washington Co. is getting its buildings ready for the new hoisting and pumping machinery which will soon be up. Taking it altogether the mining outlook on the divide is very favorable.

Mining and Scientific Press, V. 48, 5/17/1884, p. 340

Forest Hill.—Placer Herald, May 10: Every few days heavy machinery is brought through town, intended for the new Washington Mining Co.'s mill. One wheel passed through a few days ago which weighed 8,800 pounds, and this week a large drum weighing 2,100 pounds came in; but the largest wheel is expected shortly to arrive—it will weigh six tons. The whole machinery and buildings of this Company are of a solid and substantial character. The Mayflower Co. are still sinking deeper. Their prospects are looking better. This company deserves great credit for the pluck and energy with which they have prosecuted their works so far. That they may meet with great success, is the earnest wish of all.

Mining and Scientific Press, V. 49, 12/6/1884, p. 360

The Old Croesus Mine.—Placer Herald, Messrs. Norton & Hooper, who are working the old Croesus ledge in Baltimore ravine, about a mile south of town, and whose good prospects have I heretofore been mentioned in the Herald, had a crushing from the mine last week and realized \$25 a ton from their rock, besides the sulphurets, which, it is thought, will bring up the yield \$3 more, or to \$28 per tony Messrs. Norton & Hooper are good miners and the men at work for them are good miners. They have expressed confidence that the mine would pay from the time they first took hold of it, and the yield they have realized from their first crushing shows their confidence was well-founded.

Mining and Scientific Press, V. 49, 12/6/1884, p. 360

Rich Pav.—Placer Argus, Dec. 4: We are very glad to have it to announce, on excellent authority, that very rich pay has been struck in the May Flower mine, near Forest Hill. We have

no particulars beyond the fact that they have it in all shapes—nuggets, coarse gold, and fine gold, Messrs. Slosser and McCullough have been getting rich gravel in their claim on the Middle Fork. A new amalgamator, the patent of A. C. Bowen of Michigan Bluff, has lately been put in use at the Rising Sun quartz mine, near Colfax.

Mining and Scientific Press, V. 49, 12/18/1884, p. 376

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Mining and Scientific Press, V. 50, 3/28/1885, p. 208

Forest Hill.—Placer Argus, March 19: The dry weather continues and ditches are getting lower, so that water consumers look somewhat dejected at the prospect of a short season for mining. It is reported that rich gravel has been struck at the Mayflower mine. Everybody here sincerely hopes the report is true, as it may be the cause of other mines being developed on the Divide. The company is in want of several good drift miners.

Mining and Scientific Press, V. 50, 4/18/1885, p. 256

Our Drift Mines.—Placer Argus, April 11th; Drift mining in that portion of Placer county lying between the North and Middle Forks of the American river, is from all accounts in a fairly prosperous condition. The late purchasers of the Succor Flat mine are getting that property in shape for extensive operations; recent developments in the Mayflower near Forest Hill, we learn are very encouraging; the old Mountain Gate mine at Damascus is keeping up its reputation as a big bullion producer; the Bob Lewis mine at the same place holds its own; the Hogs Back and the Greek claim, further up the divide, have encouraging prospects ahead; Breece & Wheeler's mine at Bath is always good; and the famous Hidden Treasure at Sunny South maintains its fame by its operations, constant improvements and unfailing dividends. With these mines in operation, and others equally good, perhaps, but as yet less developed, and our greater or less quartz interests, it cannot be said that Placer's mining interests are entirely played out, not by any means, nor that the slickens agitators have entirely succeeded in killing the county, though they tried ever so hard to do so.

Mining and Scientific Press, V. 50, 5/16/1885, p. 329

Forest Hill.—Placer Argus, May 7; A big clean-up was made at the May Flower mine on Saturday. The May Flower has been the dispenser of more money on this divide than any company for a great many years. The Washington mine, situated about a mile from Forest Hill, having been free from the water in the works, has resumed operations this week. The main shaft has been sunk to a depth of 340 feet, and the prospects are regarded as very flattering by those most directly concerned and who are best able to judge. George T. Murdock, an experienced miner, is the superintendent of the mine, which employs fifteen or twenty men. The Baker Divide mine, located on Shirt-Tail canyon, about six miles from here, is said to be giving rich promise. At present the company are building houses for the use of the workmen engaged in the

mine. They are also constructing about a mile and a quarter of flume to supply water whereby to run the air compressor. Work in this mine is run mostly by contract, I believe. Wm, Dodge, Jr., is the superintendent.

Forest Hill.—Placer Herald, May 9: Work has been started up again in the Washington mine, near Forest Hill. A tunnel is being run to tap the shaft at 60 or 80 feet through which the water from the pumps will be emptied to save lifting so high. The shaft, we believe, is down to gravel, and as soon as the water can be gotten out Mr. Murdock, the superintendent, hopes to commence drifting.

Mining and Scientific Press, V. 50, 6/6/1885, p. 365

The Mayflower Gravel Mine at Forest Hill, Placer county, is progressing finely with weekly returns of about 300 ounces of gold and with a fair prospect to increase its yield. A number of companies have been laying back awaiting the result of the Mayflower's work, and a few have already commenced work. In the Mayflower recently they were taking gold from crevices and got 234 ounces from one pan and \$1,100 in about an hour.

Mining and Scientific Press, V. 50, 6/6/1885, p. 368

More on- the Mayflower.—Herald, May 30: Two weeks ago we mentioned the fact that at the Mayflower mine, near Forest Hill, they had struck the main divide channel, and were taking out some very rich gravel. Mr. P. Crary, who returned several days ago from another trip to that divide, says the channel is wide and known to be very extensive, and the richness of the gravel beats anything he ever saw, and he is an old miner. There are chunks of it that seem to have only rocks and cement enough to hold the gold together. One pan from some gravel taken out while he was there was washed and had in it in 22 ½ ounces of gold, or about \$400. The developments in the Mayflower will give a stimulus to other mining enterprises in that locality, and thus enhance the prosperity of the community, and indirectly of the entire county.

Mining and Scientific Press, V. 51, 7/4/1885, p. 8

Forest Hill.— Placer Herald, June 27: Late developments on the Forest Hill divide have given to that region a new life. Much prospecting is going on and in many of the older mines the working force is being increased. The May Flower cleaned up over 50 pounds of gold again on Monday. That portion of Placer county is now undoubtedly the liveliest mining region in California.

Mining and Scientific Press, V. 51, 8/1/1885, p. 88

The. Big Oak Tree Mine—Herald July 25: Near Colfax a parallel ledge to the Rising Sun is beginning to attract considerable attention. The main shaft is down more than 100 feet, steam hoisting and pumping works have been put up, and the prospects heretofore, as well as the ore now coming to the surface, all indicate a good mine. The May Flower mine at Forest Hill is keeping up its lick. On the 18th 28 ½ pounds of gold were cleaned up from the riffles that, escaped from the battery during the week. The week ending July nth no less than 42 ½ pounds were cleaned up from the same source. Last Tuesday Superintendent Chappellct shipped to San Francisco 41 pounds of bullion, the product of the batteries for two weeks. The yield of the mine in June was \$52,000! Later—\$10,000 is reported as having been taken out in one night this week. An encouraging development has been made in the Succor Flat drift mine near Iowa

Hill. There is talk of the Belmont mine near Ophir being started up again soon. The same of the Julian mine at Jenny Lind Flat.

Mining and Scientific Press, V. 51, 8/8/1885, p. 104

About Forest Hill.—Argus, Aug. 1: The Washington Company, have bonded a claim from A. Clark, lying between the Washington shaft and the Grinnell claims, and this week commenced a tunnel, running in from the Breece & Wheeler tunnel, at a point about 1,700 feet from its mouth, through which they expect to work the channel. The Mayflower Mining Company is negotiating for the purchase of more mining ground, lying immediately south of their present claim. The Excelsior Mining Company has bought some additional ground from the railroad company and propose to put on a force of men as soon as they can get the water out of their old works. Breece & Wheeler are taking out rich gravel from their drift mine at Bath.

Mining and Scientific Press, V. 51, 8/29/1885, p. 150

Mining Transfer.—The Mayflower Mining Company has concluded the purchase of the mining property adjoining its own in Placer county, and belonging to Anthony Clark and F. Chapellet. The claims purchased are the Justice Consolidated, Golden Eagle, Bedrock, Hull and Lookout. The considerations are as follows: \$6000 paid down, \$28,500 in one year, another \$28,500 each in three, six and nine months thereafter, in all \$120,000. At the end of a year the purchasers have the option of paying 5 per cent per annum on \$114,000 and extending the time for payment to two years. Possession is to be taken by the Mayflower company at once. A tunnel is to be driven in Brushy canyon, and the sellers, Messrs. Clark and Chapellet are to have joint use of it with the Mayflower Company,

Mining and Scientific Press, V. 51, 9/5/1885, p. 168

Forest Hill Divide.—Correspondent Placer Herald, Aug. 29: Having had another interview with our friend and mining expert, Mr. J. H. Ritchie, in relation to various mines, I think it would be interesting to your readers to give a synopsis of his visits and opinions, as he is an experienced miner, and has been superintendent of various prominent mines west of the Rockies. He has been on a tour of inspection over the Divide mines and speaks of that region very highly, says it is the best mining district ever discovered, and being, as it were, nearly obliterated from the mining record, and miraculously turning up in its immense magnitude in richness and space, that the mind can scarcely conceive its importance. One party says he saw panned out in one pan in the Mayflower 32 ounces of gold; but this is not all—as the queen of Sheba said of the greatness of Solomon, "half of it was not told." He first visited the Spring Garden mine, and speaks highly of it. He did visit all, but next came to the Mayflower, superintended by Mr. Chapellet, who kindly gave him information as to the richness and facilities for working. The facilities are not in ratio with its immense richness, but they have it surveyed to run a tunnel into the works so as to run the gravel out on cars, instead of as they are now doing, hoisting to the surface and pumping water. Thus the tunnel will insure an increase of the product of gold 50 per cent. The working force is 120 men. The Washington mine is situated about a mile from Forest Hill. They are sinking a shaft and working in a scientific manner with splendid machinery—the superintendent showing experience and workmanship. The Baker mine is superintended by Mr. Dodge. Their tunnel is in 3000 feet and they calculate to put on more machinery soon. Did not visit the Breece & Wheeler mine, but was told it prospects from \$1.00 to \$2,50 to the pan. It is situated at Bath. All seem to work with confidence of success. The Hidden Treasure mine, at Sunny South, was

next visited. The superintendent, Mr. Win. Cameron, is running it with 80 men. This is one of the most practically worked mines, with the finest kind of apparatus, showing great facilities and good management. It is a first class mine. And the great bonanza, known as the Derby mine, is certain to be one of the most valuable on the Ridge. J. M. Bardwell and others are the lucky owners. They have it entered in the Land office for patent. It contains 140 acres in Sections 26 and 35 in Township 15. The rock was very hard to tunnel and has cost the company about \$30,000, the tunnel is in now 1800 feet, and is in to the pay gravel, which looks very favorable for being one of the greatest mines out. They are making calculations to commence on a large scale, so you may hear of them building a vault to keep the dust safe. Mr. Bardwell was speaking of the form of these channels with bars, coves, etc., in those ancient river beds being similar to the present rivers on surface to all appearance. A few miles further up is what is known as the Dam claim. It is worked on an economical scale by the owners, who are nine in the company. They are in about 500 feet, drifting out in a large breast and piling back the cement and rubbish, filling up behind as they go ahead. And the beauty of it is they need no timbering, which, you are aware, is a great saving in expense—it is equal to free water in hydraulicking. I have not seen half the tunnels that they are to work on, but I will say that the "Divide" is certain to be the richest, and with such an immense area, the largest mining district ever discovered in California, Mayflower.—Placer Argus, Aug. 27: Forest Hill is livelier than it was at the time of our last visit six or seven months ago. This improvement is due, doubtless, to the "strike" in the Mayflower, made last May, and heretofore noted in these columns. Business is rather better than in most other towns in this county or in the State. The merchants are doing a better business than is usual at this time of year, and altogether a better feeling prevails. Of course, we visited the one great center of attraction at "the Hill," and that is the Mayflower mine. We were surprised to find so much of a settlement there—quite a town in fact, and a busy town too. In addition to the many substantial structures already existing there, we noticed a fine large two story building going up. It is to be used as a lodging house for the workmen. Work in the mine is being pushed forward energetically by Mr. Chappellet, the superintendent, nearly 100 men being employed there at present. The superintendent and his foreman, Jake Kelton, were so kind as to pilot us through the labyrinthine works of the mine under ground. We saw enough to require columns to describe it, if we were writing for people who did not know better than we do what mines and mining are. Suffice it to say, the works are among the finest and most extensive of any on the coast. The top of the hoisting works is 106 feet above the surface. The mill has had its capacity increased from ten 10 twenty stamps, and the appliances for ventilating the mine, for conveying the steam from the main engine above to a donkey engine below, for draining the tunnels, etc., are all of the most practical and satisfactory kind. We were shown some of the richest kind of gravel on the bedrock of the channel of the ancient river, 350 feet beneath the surface. But we have not the space nor the time for an exhaustive and accurate description, even were it in our power to give it. We have it from the best authority that the mine is "paying big," though we did not take time to obtain figures. With all that has been done there during the past seven or eight years, never yet has a man lost his life. Thanks are due to Mr. Chappellet for the thorough system and code of signals, regulations, etc., which obtain.

Mining and Scientific Press, V. 51, 9/12/1885, p. 184

Divide Dots.—The paying mines hereabouts are letting down bountifully, the Mayflower having, it is said, produced \$10,000 one day last week, and prospects abundant for the continuance of large returns for an indefinite period. Charley Marley, of San Francisco, has been for some time

pumping out the Excelsior mine for the purpose of recommencing work on the high rock. The water is now on and workmen have been put on. The Washington is still running drifts in the rock. The neighboring mine of Breece & Wheeler, at Bath, is also taking out pay dirt, but will have to lay off some of their men until they have raised their new chute and judging from the prospects of the grave in sight, will again be taking out richer pay than for a couple of years back,

Michigan Bluff Items.—Placer Argus, Sept. 5: A. C. Bowen, J. L. Gould and O'Donnell have begun work on a drift mine called the Hermit, located on the main channel, between the Hidden Treasure and the Orion about six miles above Michigan Bluff. They have eight or ten at work at present in running a bedrock tunnel, and they intend to prosecute the work vigorously until they strike the channel.

Mining and Scientific Press, V. 51, 10/31/1885, p. 296

Forest Hill.—One of the main pumps in the famous Mayflower mine, near Forest Hill, gave out on Wednesday a week ago, which caused the mine to fill considerably with water, and seriously interfered with the work of taking out gravel. After working two days in the endeavor to repair the damages, it was finally concluded to put on bigger pumps and heavier machinery, and to secure these Superintendent Chappellet went below last Saturday.

Placer's Mines.—An item is going the rounds to this effect: "Placer county is having quite a boom in mining matters." This is true. Placer's drift and quartz mines never promised better. Some think from present indications that the gold yield of this county for the current year will exceed the yield of any other county in the State. The channel on the Forest Hill divide, recently located by developments in the Mayflower, contains as much wealth, doubtless, as ever came out of the Comstock, and Forest Hill to-day is one of the liveliest mining towns on the coast.

Mining and Scientific Press, V. 52, 1/9/1886, p. 28

Mayflower.—Placer Argus, Dec. 31: F. Chappellet, superintendent of the Mayflower and Live Oak mines at Forest Hill, was in Auburn Tuesday on his way to San Francisco to attend a meeting of the directors of the Live Oak Company. He reports things as prosperous at the mines. The Live Oak is prospecting very favorably, and the owners and all concerned are elated.

Iowa Hill Divide,—Cor. Placer Republican, Jan. 1: There is not one hydraulic mine running on this divide at present, and it is evident that this character of mining is a thing of the past in this part of the country. The mines of Iowa hill, Forest hill, Michigan Bluff, Yankee Jim's and Todd's valley are entirely worked out as hydraulic propositions. Ditch property, in consequence, is rapidly depreciating in value, and will soon become almost worthless, except 1 as a means of furnishing power. But while hydraulic mining is being discontinued, drift mining is being energetically prosecuted. Work goes steadily on in the old drift mines, and many new tunnels are being driven in mines heretofore worked by the hydraulic process.

Mining and Scientific Press, V. 52, 1/30/1886, p. 83

The strike in the Mayflower mine was the event of Placer county in 1885. When the pay gravel was first reached about the first of July, 600 ounces were taken out the first week, and the report of October 1st to the stockholders showed that exactly 124,000 had been taken out after a ninety days run. The yield has been as constant and steady since then, having been interrupted only a few days by a breakage of machinery. It is fair to assume that about sixty per cent of the yield is net profit. The Mayflower was a hydraulic mine from 1877 to 1883, during

which time it turned out about \$25,000; owing to litigation and the high price of water it did not pay.

Mining and Scientific Press, V. 52, 1/30/1886, p. 84

Forest Hill.—Cor. Placer Argus, Jan. 21: The superintendent of the Washington mine has commenced sinking a winze in one of the tunnels running off from the main shaft, and at a distance of 500 feet from it. It is now about thirty feet down. The contractors of the Baker Divide tunnel finding steam too costly a motive power wherewith to run their air-compressors, intend soon to erect machinery to be driven by water power. They will erect a thirty-foot water-wheel about 425 feet below the mouth of the tunnel, the power to be transmitted by means of cables, each about 200 feet long, with gearing about midway. It will be no easy matter to do this, as the hillside is very steep. The Live Oak mine is giving a good account of itself. The tunnel is now in about 300 feet. One hundred and twenty two feet below the level of the tunnel the bedrock was struck last Thursday. It pitches very sharply to the east and south. Superintendent Chappellet will sink about fifteen feet more and then he will cut into the gravel. The prospects of the company soon obtaining big pay are extremely flattering. About fifteen men are constantly employed in the mine.

Mining and Scientific Press, V. 52, 2/20/1886, p. 132

At Work.—Placer Co. Republican, Feb. 13; Charles Harley has begun work on the Campbell ground at Forest Hill. A Cornish pump has been put in operation with a steam pump ready in case of any accident to the former. The Peardon and Hawken brothers have made another clean-up at the Three Stars from a twenty-five days' run. During that time they have crushed 200 tons quartz which yielded 197 ounces. The gold brings \$13.79 an ounce; At the Live Oak mine near Forest Hill, the shaft has been sunk 122 feet to bed rock which was found to dip to the south at a sharp angle. The shaft will be sunk fifteen or twenty feet more before a tunnel is begun. The owners are much encouraged by the gravel found on the bed rock. The principal stockholders are Messrs. Crary, Chappellet, and Kates.

Mining and Scientific Press, V. 52, 2/27/1886, p. 148

Mining at Todd's Valley.—Argus, Feb. 18: There is not much doing in the way of mining at Todd's Valley at present. Most of the claims are lying idle, principally, we believe, on account of the litigation between C. T. Wheeler et al., of Sacramento, against Chas. Constable, assignee of the estate of the late A. A. Pond. The only mine of any note now operating is that known as the Mountain Tunnel, located on the old Todd place. Twelve or 14 men are employed there sinking a shaft, which is down 25 or 30 feet below the level of the main tunnel. This shaft is partly for the purpose of supplying better ventilation, partly to convey the water wherewith to run the machinery of the mine. The owners are San Francisco men. Ernest Garbey is the superintendent.

Mining and Scientific Press, V. 52, 3/13/1886, p. 180

Rich Dirt Again. —Herald, Mar. 3: We received a pleasant call from Mr. A. Breece, of Bath while he was in town last Tuesday. He informs us that in their mine, the famous Breece & Wheeler claim, they have been running for something over a hundred feet through a body of low grade gravel. such as they have encountered at times before, and such as occurs in all drift diggings. Recently, however the character of the gravel has been improving again, and on

Saturday last he prospected a few pans which went as high as five dollars to the pan. This mine has yielded a vast amount of money and is to-day one of the best drift mining properties in the State. The channel is something over 60 feet wide, and on an average has proven very rich.

Mining and Scientific Press, V. 52, 3/27/1886, p. 212

An Important Development.—Placer Herald, March 20: On the 10th inst. the prospect tunnel in the Dardanelles mine at Forest Hill, owned by Gen. Jos. Hamilton, broke through the bed rock into the channel and struck what is regarded as a very flattering prospect. This is good news for Gen. Hamilton, and a very important development for Forest Hill and the county. It furnishes additional proof of the great extent of the paying drift ground in that region and adds one more to the opened mines of the district. It tends also to further establish the claim made by experienced miners, that the Forest Hill Divide is destined in the near future to become the richest and most extensive drift mining district of the State.

Mining and Scientific Press, V. 52, 4/10/1886, p. 244

Pocket.—Placer Republican, March 31: Judson Wheeler came down from Bath yesterday. Mr. Wheeler says that the recent strike in the Breece & Wheeler proved to be only a pocket of pay gravel and did not last long. They are now opening up new ground and are working on what is supposed to be the same channel the Hazard mine is on.

Mining and Scientific Press, V. 52, 5/1/1886, p. 296

Forest Hill.—Cor. Placer Herald: Our town is prospering. Mining interests are in a thriving condition, with a certainly of an increased output from our bonanzas, when the "Excelsior," "Baker Divide," and other mines in this vicinity shall become fully developed.
Strike.—Placer Argus, April 22: A rich strike was made last week in a mine owned by Hamlin Bryan, Jose Romualdo and others, on Pine Flat Point, between Forest Hill and Bath in the Volcano Bar trail. The rock is said to be very rich, going as high as \$1000 to the ton.

Mining and Scientific Press, V. 52, 5/29/1886, p. 360

California.—Placer Herald, May 22: Adjoining the Croesus mine in Baltimore ravine, to the west, is the California quartz mine, a valuable property. The rock in the tunnel is very hard, however, in places, costing \$20 a foot to run. Latterly it is getting softer. A mistake in measurement was made of 50 feet, and there is about 42 feet yet to run before striking the ledge, when we may expect some good results. The superintendent has had a tedious time, but his faith and perseverance are equal to the task.

Mining and Scientific Press, V. 52, 6/5/1886, p. 372

Washington.—The pumps have all been taken out of the Washington mine at Forest Hill, and work has been abandoned. Eleven men are working at the Live Oak. They have struck a body of gravel five feet thick, which prospects very well, and they are putting it in the dump pile.

Mining and Scientific Press, V. 52, 6/26/1886, p. 422

Proposed Mining Tunnel.—On account of the heavy body of water in the Mayflower mine, the rich gravel drift claim at Forest Hill, Placer county, the pumping machinery is being taken out and preparations are being made to run a tunnel 5000 feet in length to strike the gravel channel at

its lowest depth. Two shafts will be sunk on the line of the tunnel and five facers will be worked at once with the aid of compressors and power drills.

Mining and Scientific Press, V. 54, 1/15/1887, p. 40

At Forest Hill.—Placer Herald, Jan. 8 : The Excelsior mine is having all its machinery removed from the bottom and will close down when the removal is completed. It is rumored that a tunnel will be run soon.

Mining and Scientific Press, V. 54, 1/29/1887, p. 68

Forest Hill. Herald, Jan. 22 : The Mountain Tunnel closed last week, as the men refused to work until they received their back pay. Some of the stockholders came up from San Francisco last Sunday afternoon to examine the work. It is thought that their demands will be granted and work will soon be resumed.

Excelsior. —Placer Argus, Jan. 22: Work has been suspended in the Excelsior shaft owing to the amount of water in the mine, and the machinery has been removed. It is probable that a tunnel will have to be run to drain the mine before operations can be resumed. As the mine has been promising extremely well and the owner, Mr. Chas. Harley, is wealthy and moreover has every reason to be well satisfied with his prospects, there can hardly be any doubt of the work being undertaken ere long. The Live Oak is doing finely, the mill being kept running as constantly as the limited supply of water will permit. About 20 men are employed there. The May Flower tunnel is progressing satisfactorily. The shaft will be completed this week, after which, work on the tunnel will be done from three faces. It will take six or seven months more to complete the work.

Mining and Scientific Press, V. 54, 2/26/1887, p. 144

Mayflower.—But very little work is being done at the Mayflower tunnel just now, owing to a lack of fuel. One pump is kept going.

Mining and Scientific Press, V. 54, 3/12/1887, p. 176

May Flower and Live Oak.—Placer Herald, March 5; F. Chappellet, superintendent of the May Flower and Live Oak drift mines, near Forest Hill, was in Auburn last Monday. The May Flower is a mine the reputation of which is established. The channel is extensive and rich, and it only remains to run the necessary tunnel to afford drainage and a cheap and convenient method of working, to put the May Flower in a position which will entitle it to rank among the best drift mines in the State. The work of running this tunnel, begun some months ago. As we learn from Mr. Chappellet, is progressing vigorously. At a distance of 4196 feet from the mouth of the tunnel a shaft has been sunk 326 feet deep to the tunnel grade, and from the bottom of this shaft the tunnel is being run in both directions, in addition to the work that is proceeding from the mouth, thus driving three faces at one and the same time and enabling the company to run about 500 feet a month instead of about 200 feet a month, as was the case before the shaft was completed. At the top of the shaft are engines for running the hoisting works, the pumps, and machinery for driving fresh air into the works. At present, or up to the last report, the tunnel was in 1850 feet from the mouth, 6\$ feet west from the shaft, and 60 feet east from the shaft, making in all 1975 feet completed; and leaving about 3000 feet yet to run. With good luck, the channel, already thoroughly prospected by Mr. Chappellet, will be tapped before another fall, and when it is, one of the richest and most extensive mines in the State will be opened for systematic and

regular working. As to the Live Oak, Mr. Chappellet thinks it is sure to prove a big mine. The prospect tunnel from Brushy canyon was run most of the way through gravel, but a few weeks ago, when in a distance of 1400 feet, they struck the main channel, which is developing richer and larger than anticipated. Thus far the gravel has averaged about \$3.60 to the ton, and a cut 176 feet crosswise of the channel has not yet reached the rim. In this mine the channel is separate and distinct from the May Flower channel, though the two run parallel and not far apart. The difference is noted in the character of the gravel and the character of the gold. The proof, now considered established, of two distinct channels so close together on the same divide, only goes to show the vast extent of the auriferous deposits of that section and indicate the importance of the district as a gold-producer, when these channels shall become, by different companies, more thoroughly opened, or, in other words, opened in different places along their course.

Mining and Scientific Press, V. 54, 4/16/1887, p. 256

Mayflower. — Placer Republican, April 9: Work was suspended in the shaft of the Mayflower tunnel a week ago Sunday, on account of the water, and the men are now working only on the face in the tunnel which is in 2200 feet. About 300 feet have been made on the two faces at the bottom of the shaft, so that one-half of the whole tunnel has been accomplished. Superintendent Chappellet says that contractor Boyle wants to throw up his contract, and that if he does the company will itself finish the tunnel. It will require about a week to pump out the shaft, and it is thought that the whole tunnel will be completed in less than five months.

Mining and Scientific Press, V. 54, 4/23/1887, p. 272

Forest Hill.—Placer Argus, April 16 : Mr. Ed Boyle, who assumed the contract for running the May Flower tunnel, at Forest Hill, in December last, has given it up. The company now intend running it themselves under the superintendency of Mr. F. Chappellet, The pumps will be started up in the shaft next Friday. It was nearly full of water, no work having been done in it for over two weeks. The tunnel will now be vigorously pushed forward to completion, which it is expected will be accomplished in about six months.

Mining and Scientific Press, V. 54 5/14/1887, p. 320

Forest Hill Divide.—Placer Herald. May 7: Although there is no excitement in mining circles, a great deal of work is being done quietly in prospecting and opening the mines. At the Mountain tunnel they are running drifts in various directions. Breece & Wheeler are prospecting their way to the famous upper lead. Mr. Dodge has extended the Baker Divide tunnel 2500 feet into the main ridge and is getting ready to make an upraise. Col. J. H. Keown intends to pierce the Hazard mine by means of a tunnel, which will involve a smaller expenditure than the present way of working. Through the kindness of Mr. Chapellet, we had the pleasure of visiting the new tunnel and seeing the machinery that is extending the tunnel up Brushy canyon to the famous Mayflower mine. On the failure of Mr. Boyle to complete the tunnel, the company authorized Mr. Chapellet to prosecute the work according to his own plan. Mr. Chapellet immediately set to work and had got the water under control and was confident he would have the shaft emptied by the middle of this week. The shaft is 326 feet deep. The air-compressor and hoisting works are at the top of the shaft and are under one roof. Leading from the compressor is an iron pipe which stretches 4200 feet down the canyon to the mouth of the tunnel, which it enters and conveys the compressed air 2200 feet up to the head of the tunnel, where it operates the Burleigh drills. Mr. Chapellet is preparing to erect another compressor at the mouth of the tunnel. The

length of tunnel so far run is 2500 feet, the height eight feet, and the width for the first 300 feet is eight feet; the bore gradually narrowing to six feet from this point. The grade is one-half inch to the rod. The tunnel is in a slate formation and is remarkably dry. The cars run on T rails and are switched at regular intervals. In a short time horse-power will be substituted for man-power in running the cars. At the mouth of the tunnel is a fan which forces the outside air through an iron pipe up to the face where the men work. This constant current keeps the air fresh and wholesome. About 1500 feet below the mouth of tunnel is the Live Oak mine. Mr. Chapellet will have completed the mill by this writing. The mill will be run by the tunnel and the canyon water, which is caught and stored in reservoirs ready for use. The tunnel is in 1500 feet and pierces a rich body of gravel. The company employs about 30 men. The force will be increased as soon as circumstances permit.

Mining and Scientific Press, V. 54 5/21/1887, p. 336

Forest Hill.—Cor. Placer Argus, May 11: The Mountain Tunnel machinery being in need of repairs and cleaning, they have been idle this week. Several members of the company were up a few days ago from S. F. Forest Hill will soon have a rival town; that ancient burg with the euphonious name of Yankee Jims is looming up, awaking from its long sleep, and ere many more years roll around, will once more be a booming mining camp.

Mining and Scientific Press, V. 54 6/25/1887, p. 416

Forest Hill Divide.—Placer Herald, June 18: Supt. Dodge reports that gravel was struck in the upraise of the Baker Divide tunnel last Sunday night, 330 feet above the tunnel. So far they have been unable to prospect on account of water. A horizontal drift will be run to lead the water off. The tunnel is in 2400 feet. Mr. Dodge thinks it will have to be extended 1000 feet, as the bedrock pitches away from them at a very small angle according to present indications. The finding of gravel at Red Point, and by the Baker Divide Co., opens a new era in mining on the Forest Hill Divide. These two tunnels were run to test the theory that an old channel followed the trend of the Divide from a point above Damascus down to the Mayflower mine; and the striking of gravel in both has proved the theory to be correct. The successful issue of these two costly undertakings will encourage other companies, invite capital and population, and place the old Divide in the front ranks of rich mining centers.

Mining and Scientific Press, V. 56, 1/14/1888, p. 24

Spring Garden District,—Cor. Placer Argus, Jan. 7: I have noticed the many reports of the mines on this "divide;" but there is one section which I think has been somewhat neglected by our county press; that is the Spring Garden Mining District on the lower portion of the Forest Hill Divide. The rapidly increasing interest which is being taken in that section by enterprising and experienced mining men both here and below, would indicate that they are thoroughly convinced that the same deep channel, which is an established fact from Red Point, above Damascus, all the way down the Ridge to the May Flower and Excelsior mines, continues its course down the ridge through the Dardanelles, Mountain Tunnel, Old Centennial, Grey Eagle, Spring Garden and Blue Gravel mines, and probably has its outlet into the Middle Fork Canyon near the latter. This theory would seem to be still further strengthened by the fact that of all the shafts which have been sunk in that section, notably the Mountain Tunnel, Centennial, Grey Eagle, Spring Garden and Blue Gravel, although they have attained depths of 100 to 240 feet, not one has ever yet reached the bottom of the channel, for wherever they have sunk into the bedrock it has been

found to be 'pitching off," indicating greater depth. All the above mines, however, with the exception of the Grey Eagle, were under the control of men or companies, either lacking the necessary wealth, experience, or courage, and faith. But the Grey Eagle bids fair to solve the problem of the richness of the channel in that section. It is between the property known as the Spring Garden ranch and Owl creek. The company have erected suitable buildings, within sight of the Auburn and Forest Hill stage-road, and at a point which {by surface indications and shaft sunk to the "rim-rock " on either side) they conceive to be directly over the deepest part of the channel. Here they are sinking a shaft which has already attained a depth of 175 feet. The water which has been encountered in sinking and which is always considered a good indication in gravel mines, is raised to the surface by means of a fine double-cylinder steam pump. The dirt is at present raised by horse-power, but I hear this will soon be supplanted by a steam hoisting engine which will facilitate operations in general. The Grey Eagle is in active operation, but it is reported that a large and powerful company represented by two of our local raining men have obtained control of the Blue Gravel mine and adjacent properties and will soon begin the excavation of a large tunnel to tap all their ground. The strike in the Dardanelles has also accelerated the interest in the " lower divide," so that now there is scarcely a foot of available ground which has not been secured for mining purposes—that is, around Owl creek, Spring Garden and Paradise—and even farther down the divide where it is known that no gravel deposits exist. A great many quartz claims have been located. From this it will be observed that the lower portion of Forest Hill Divide is not only deserving of notice but that present prospects indicate a bright and prosperous future.

New Project.—A new mining project is under way at Todds Valley. A company consisting of John Farrier, Thomas Harper, Anthony Clark, and others have begun the work of extending the old Union Tunnel which is located two miles below the town and was originally intended to tap the main channel of Todds Valley. This tunnel was run 200 feet in early days at a cost of about 560 a foot. The present company is driving it ahead now for the main lead, and they expect to strike the channel in about 250 feet just below the old Natchez tunnel, which paid well in early days.

Mining and Scientific Press, V. 56, 1/21/1888, p. 40

Gray Eagle.—Argus, Jan. 14: The Gray Eagle Mining Co., near Spring Garden, received a new engine and boiler from Joshua Hendy. The mine is running full-handed and is doing well.

Mining and Scientific Press, V. 56, 2/4/1888, p. 68

Red Point.— Placer Republican, Jan., 25: Anthony Clark has bonded the Big Channel and Peckham Hill claims at Spring Garden to the French Company of Red Point for two years. Mr. Clark will receive \$10,700 for the bond and \$20,000 more if the company purchases. The Spring Garden claim, owned by Bradley & Nash, is also bonded for \$20,000 to the same company, whose engineers are already making a survey for a tunnel.

Mining and Scientific Press, V. 56, 2/18/1888, p. 108

New Channel. — Placer Republican. Feb. 8: F. Chappellett found a new channel at the Live Oak mine near Forest Hill, about a week ago. It is from 40 to 50 feet higher than the old works, and the gravel contains the same character of coarse gold which was lost in the old channel a few months ago, and it is also full of large quartz boulders. Mr. Chappellet has as yet found only one rim, but the channel is at least from 175 to 200 feet wide, and it has already proved to be at least

7 feet thick with indications that it may be 15 or 20, That it contains considerable gold may be seen with the naked eye, but as it has not yet been prospected, its richness is a matter of conjecture. The miners think this discovery is the making of the Live Oak claim.

Mining and Scientific Press, V. 56, 2/25/1888, p. 124

Widening.—Placer Herald, Feb. 18: General Hamilton is busy erecting a mill on the Dardanelles mine. The channel is widening. The Gray Eagle shaft is down over 200 feet in blue gravel and washed bowlders, with good indications.

Forest Hill.—Placer Republican, Feb. 18: The Dardanelles, one of the richest mines on the divide, but which has not been worked much for some time, is again coming to the front with prospects. Jo Hamilton is here making preparations to put up a stamp-mill, to be run by water-power. Mr. Johnson, formerly Deputy Sheriff of this county, is to be foreman, and Henry Maye is to be underground boss. The General has bought the little ditch leading to Todd*s valley, to carry water to the mill. A mill and several buildings will be erected at the mine this spring and summer. At the May Flower, Miller and Colwell are getting out timbers for the new mill. Extensive building will be carried on at the mine as soon as the weather settles, until snow flies.

Mining and Scientific Press, V. 56, 3/17/1888, p. 172

Spring Garden,— Placer Herald March 10: Spring Garden and vicinity has always been an inviting field to the miner. The ravines were all rich, and in many places the hillsides have paid the prospector well for his labor. The backbone of the Divide separates Spring Garden from the well-known Owl creek and its tributaries, from which thousands of dollars were taken in the early days of mining. A deal of prospecting has been done in the Spring Garden ranch, but for some reason or other the gold hunters failed to strike the channel. But though unsuccessful, their failure never weakened their faith in its existence. Many miners on the Divide still believe that the big " blue " lead is there, or near there, and that wealth awaits the man or the company that shall be so fortunate as to find it. All the indications strengthen this belief. Slopes have been sunk, and tunnels have been run, but the projectors, so far, have not had the money to back their faith. The latest attempt is that of the Gray Eagle company, which is now sinking a shaft, half a mile above the ranch, on the top of the ridge. This shaft is down 220 feet in gravel and bowlders. This depth indicates a channel, and, if the quantity of water is not too great, the company will go down to bedrock and run drifts in various directions to test the depth and breadth of the deposit. This shaft is an experiment, and much depends upon the result. Should the experiment be successful, other companies will begin operations at once. The Gray Eagle company is doing the pioneer work and is risking its capital in its attempt to develop this section. Should it not succeed, the further development of the mines would be arrested for years, capital would seek other fields and the existence of the channel would remain unproved.

Mining and Scientific Press, V. 56, 3/24/1888, p. 188

Upraise.—Argus, March 18: The miners at the May Flower mine started an upraise over a week ago, and it was expected to strike the channel some time this week. The tunnel is in 5200 feet.

Mining and Scientific Press, V. 56, 3/31/1888, p. 204

May Flower.—Placer Republican^ March 21: The May Flower tunnel, a mile long, the incline, and the upraise have all been completed, and the miners broke through into the long-sought blue

gravel last Friday. Blue gravel of the same character as that in the old works above was found. The point at which they have cut through the bedrock into the channel is somewhat high on the rim, but it will be the work of only a few days to push the tunnel ahead and cut the bedrock lower down. The survey and the work have proved to be a success. There is a large force of men at work and the mill and mine will soon be in operation. At the Live Oak they have just found the north rim of the new channel and have ascertained that the channel is about 200 feet wide with 7 feet of gravel. They will begin breasting this week and wash the gravel which does not need crushing. The gravel from a new drift running easterly must be run through the mill. Everything appears to be booming at the Forest Hill mines.

Mining and Scientific Press, V. 56, 4/7/1888, p. 220

Forest Hill Divide.—Cor. Placer Argus, March 31: The Gray Eagle mine which is prospecting our deep gravel channel on such an extensive scale, is the center of attraction at present. Their shaft is now down 240 feet and no bedrock yet in sight. By a comparison of the rich gravel recently found at the Dardanelles and that through which the Gray Eagle is now passing, no perceptible difference can be seen, both having the same character of formation peculiar to the ancient Lost River of the Forest Hill divide. Supt. T. G. Durning came from the Bay last Friday, and according to an arrangement with Mr. R. L. Dunn, C. E. and U. S. D. M. S. of Auburn, who came up here on Monday, the locating of a tunnel site for the Gray Eagle Co. was the order of the week. It was ascertained, we learn, that by running a tunnel 2125 feet they could attain a depth of 322 feet beneath the present location of their works. This is believed by all to be a sufficient depth to work the entire lower portion of the divide, including the rich placers of Todds valley and vicinity. It was discovered that the site of the proposed new tunnel was not on the company's ground but was a part of the public domain; it was therefore immediately located, thereby adding 53 acres to their already valuable property. Mr. Durning also located the Owl creek canyon for 3000 feet below the tunnel site, giving them a sufficient length of sluices to thoroughly wash their gravel. Mr. Bouglois has arrived from Paris, and the syndicate of French capitalists which he represents will shortly commence operations on the Spring Garden mine and adjoining properties which they recently purchased in this district

Mining and Scientific Press, V. 56, 4/14/1888, p. 236

Mayflower.—Placer Republican, April 4: The latest news from the Mayflower mine is that the drift to find the pitch of the rim is in over 115 feet. The bedrock was lost at 68 feet, but they will run in gravel 36 feet, and sink a winze which will probably reach the center of the channel. After that work is done the tunnel will be extended to that point and the chute built. The new mill is progressing, the engine and battery rooms being covered last week. The Live Oak continues to look well. They have found the blue gravel which was lost several months ago and which was paying \$4.25 a ton. The Live Oak mill is running.

Mining and Scientific Press, V. 56, 5/5/1888, p. 284

Forest Hill.—Placer Herald^ April 28: Thos. Sheridan is developing a quartz mine which promises to be richer than any other lode ever opened on the divide. The Pride of the Divide is located nearly half a mile west of his house and below the ditch. Mr. Sheridan has run a tunnel 110 feet in length, tapping the ledge at the depth of 65 feet. The ledge on this lead is two feet in width and very rich. The Gray Eagle Co. is busy putting in a third boiler, the two boilers in place not being sufficient power to raise the water to the surface. The Centennial mill is idle. Four men

have been put to work on the Union tunnel, in Ferrier's ranch, below Todd's valley. This tunnel is supposed to be on the Big Channel lead, which is now bonded to the French company.

Mining and Scientific Press, V. 56, 5/12/1888, p. 306

Forest Hill Divide.— Placer Herald, May 5: The town feels and shows the effects of the mining operations that are conducted in its vicinity. The most important mine is the Mayflower, which has given employment to a large number of men for several years. The gravel is very rich, but owing to the great expense of hoisting it, the company concluded to run a tunnel. The necessary survey was made, and the tunnel was begun in the fall of 1886, and during the following 18 months it was run 5200 feet; and during the last eight months of this period 2800 feet were excavated. This is a great work, considering the difficulties under which it was done, and cost \$104,000. Such was the accuracy of the survey and the skill of the workmen that when the connection was made there was not the least deviation. One can stand at the farther extremity and see the entrance. The tunnel for the last 500 feet is 10 feet wide and seven feet high. About 60 inches of clear water are constantly flowing from the tunnel. The works of the company are extensive and cozily and embrace the most improved machinery. There are two compressors for working the Burleigh drills, the hand drills and the bellows of the forges. These compressors are run by steam and by waterpower. The new mill is about half completed and is located below the tunnel's mouth. At the time of writing work is suspended, owing to the sale of the mine. The company have received a forfeit of \$20,000, and expect to receive the remainder, \$520,000, in 60 days. The Baker Divide tunnel is about 4000 feet in length and crosses the ridge. The company expect to intersect the Mayflower channel. Ten men are at work in the tunnel and several more are employed on the surface. A large force of men is at work at the Dardanelles, building a mill, cleaning ditch and getting out timbers. The mill will be ready to crush in two weeks. The gravel is quite hard but is very rich—paying \$11 per carload. At the Gray Eagle mine work is progressing as fast as circumstances will allow. At present, work in the shaft is at a standstill, as a third boiler is being put in place. This is necessary, as a large quantity of water has been tapped. The indications are better than they were a week ago. At Yankee Jim's only a few men are operating, Charles Trafton is running a tunnel into Georgia Hill and expects to strike a rich lead and a deep channel. O. W. Henderson is working the old Davis claim; he has not made a cleanup as yet. Harry Adams is cleaning out his tailings claim in Brushy canyon. The Gilberts and J. Welker are opening drift mines on the north side of Georgia Hill. Breece & Wheeler are working 27 men on the Paragon ground. Their tunnel is in 7000 feet and is running through uneven rock. The gravel is of good depth and very rich—averaging \$10 to the carload. They now run out gravel enough to keep the mill constantly crushing. The head of the tunnel, is now under Mayflower ravine. Operations at the Live Oak mine are going on night and day. Quite a large force of men is engaged at the mill and in the tunnel which is now in a reddish gravel that will pay well. The gravel is taken out near the front of the claim. Just now they are not running the tunnel ahead, but are breasting across the channel, which is 300 feet wide. The mill is a substantial structure and is run by water from the Mayflower tunnel. The Big Gun mine is the only claim near Michigan Bluff that is being worked at present. - This old mine continues to pay about the same as it has for the last 20 years. T. Muir has a few men at work at the Weske and Oro claims. The Hidden Treasure keeps up its record in paying big dividends. The tunnel has been put in complete working order. One hundred carloads, or 400 tons of gravel, are taken out daily. The cars are drawn out and in by horse-power. The company employs 140 men. Tillotson S: Co. have very good indications in the Golden Riffle, above Canada Hill. They believe they

have struck the main channel. Some 25 men are at work on the Hogsback. The Red Point mine is yielding \$1.80 per carload. On the river, Boston Bar is paying well. Very little work is going on at the Horseshoe tunnel on account of a broken shaft. The tunnel clears itself—even logs and trees are carried through. Everything points to a lively season this summer all over the divide. Prospecting is going on in all directions. This work is being done principally by companies with ample means, and it is safe to infer that work will be continued until the secret treasures of this section are discovered.

Mining and Scientific Press, V. 56, 6/16/1888, p. 384

Dardanelles.—Placer Herald, June 9: The old Dardanelles mine is paying well. The mill runs like a clock, and each clean-up shows an increase in the output of gold. The storm of Sunday broke the ditch and delayed crushing for a time, but the break has been repaired and the mill is pounding away.

Sinking.—The Gray Eagle shaft is down 285 feet. Operations have been delayed by the loss of a pump. According to the latest report, sinking was resumed Wednesday.

Mayflower.—Mr. F. Chappellet, superintendent of the Mayflower mine, informs the Herald that he is not doing anything at the mine, simply looking after the machinery and other property until the new company takes possession. Mr. Chappellet says the owners of the Live Oak are well satisfied with the output of that mine. The gravel is very nearly five feet thick, and the channel 268 feet wide. He is running toward the rim on the eastern slope and is but a short distance from the deepest and narrowest part of the channel. He will also make an upraise and tap a blue lead that is only a few feet above the tunnel,

Mining and Scientific Press, V. 57, 7/14/1888, p. 28

Mining Situation.—Herald, July 7: In the mining sections a great deal of work has been done in opening mines and preparing for further development. Sufficient time has not yet elapsed to determine the channels, but the prospects show that before the present season shall have ended several new and paying mines will be in operation. Quite a list of mines on the Forest Hill Divide have been purchased by San Francisco capitalists who are preparing to operate them as soon as men and machinery can be set to work. Thus the whole country is doing well, and no one except the hydraulic miner has any reason to complain or growl. He has a right to complain and should keep up his fight until the Government assists him to work his claim unmolested by spies or sheriffs.

Mining and Scientific Press, V. 57, 7/28/1888, p. 56

The Forest Hill Mine Fire.—The fire in the Forest Hill mine, in Placer county, which cost J. Bowering and Robert McKechnie their lives, was caused by the pipe from the blacksmith shop setting the timbers on fire. The shop is located 5800 feet from the mouth of the main tunnel. Over 70 men were inside the fire in the tunnel. They retreated to the side drifts, where the air remained pure, and when the fire subsided, and they started to rush outside, they were horrified to find the bodies of over 30 men who had rushed in in the hope of rescuing the inside miners and had suffocated. All but the two named above were resuscitated.

Mining and Scientific Press, V. 57, 7/28/1888, p. 60

Mayflower.—Placer Argus, July 21: F. Chappellet, superintendent of the Mayflower, reports good gravel at the Live Oak, some of it paying as high as \$5 to the pan. The company has just reached the rim where the pay was anticipated.

Breece & Wheeler.—Work was interrupted in the Breece & Wheeler mine at Bath last week, by the falling in of the timbers. The break is now nearly repaired. They are working about 25 men at present.

Mining and Scientific Press, V. 57, 8/4/1888, p. 70

Editors Press:—The mines and mills generally in and around Ophir and Newcastle are lying dormant, with the exception of two small custom mills in the Ophir, owned by W. H. Fidd, the Lawrence at Ophir and two Bryan rolling-mills at Newcastle. The mills and mines are lying idle on the Julien, New Year, Gold Blossom, Three Stars, St. Patricks, Pelster, Hathaway, Green and others. Many of these are only temporarily closed, while a few will be permanently from various causes.

General inactivity seems to prevail throughout this county in mining operations. Although decidedly a mining county, yet the class of people who have of late years come in have turned their attention almost exclusively to agriculture and fruit-raising. K.

Mining and Scientific Press, V. 57, 8/18/1888, p. 113

Forest Hill District.—Placer Herald, Aug. 11: Jo Federer is taking out rich gravel at the Small Hope. P. Edwards and E. Richards have found very good indications in the Sebastopol. Their tunnel is in 230 feet; the gravel grows richer as they advance. C. Wason is running a new tunnel in the Consolidated Mammoth mine. He expects to run 400 feet to strike the channel. His claim is on the same channel as the Mayflower. The Baker Divide Co. is still running ahead. Andy Steel is running a tunnel into the Blackhawk mine. Breece & Wheeler are still running ahead; the gravel is getting richer. Work has been retarded by caves. The engine and boiler for the Dardanelles mine arrived on the ground last Sunday. As soon as possible they will be put in place. The mine had been paying big, until the failure of water necessitated the stopping of the mill. The engine is of 40-horse power, which is more than sufficient for ordinary purposes, but Gen. Hamilton thought it prudent to have a surplus of power.

Mining and Scientific Press, V. 57, 9/1/1888, p. 144

Mayflower.—The tunnel here is being pushed ahead, and Sunday morning was in 5261 feet. At the Live Oak they are running a drift to connect with the Naugatuck tunnel by a raise from the low tunnel. The raise has passed 15 feet of quartz gravel. The ground is very wet from the large quantity of water pouring down. There are good expectations from the present work.

Along the Middle Fork.—Supt. Dodge has run a tunnel, 150 feet in length, across the upper end of Boston Bar, through which he has turned the river. This tunnel is 1800 feet above the cut in Horseshoe Bar, which was run last winter. He is now stripping and working this 1800 feet of ground with good results. Breece & Wheeler have cleaned out the cave in the breast and are putting on a large force of men. The Baker Divide is still running its prospect tunnel ahead. Gen. Hamilton has got the boiler in position at the Dardanelles mine. The mill has been running since Monday. The gravel is very rich. Few men are employed at the Red Point mine just now, owing to the lack of water. The company is laying water-pipe in the ditch. quite a large force of men is at work at the Hogsback.

Mining and Scientific Press, V. 57, 9/8/1888, p. 156

On the Forest Hill Divide.—The old Dardanelles and the Baker Divide Companies having opened their mines and equipped them with first class plant, are now operating with success. The Paragon mine at Bath is paying richer than ever, A short time ago an extensive cave in the breast occurred, which uncovered richer gravel than had ever before been seen in the mine. According to report, the deposit pays \$20 to the carload, and is equally rich from top to bottom. The Gray Eagle shaft is down 350 feet in chocolate-colored cement, similar to that overlying the pay gravel in other mines in that vicinity. The shaft is deeper than any other shaft in the Spring Garden mining district. The pumps handle four inches of water. Ten men are employed in the Live Oak mine. The necessary number of drifts have been run to open up the mine for systematic working. The indications are that the mine will soon become good paying property. Sixteen men are at work completing the Mayflower tunnel. The work is progressing rapidly, and the time will not be long before the miners will be at work taking out gravel from this wonderfully rich channel. J. C. Scott has begun work on his Volcano Canyon mine. It is reported that William Muir has formed a company to run a big tunnel into the Divide at Michigan Bluff. It is intended to be the working tunnel of all the mines on the divide above Michigan Bluff. The work will be done by electricity.

Mining and Scientific Press, V. 57, 9/8/1888, p. 180

Gray Eagle.—Placer Argus, Sept. 11: Things are progressing in good shape at the Gray Eagle mine at Spring Garden. The shaft is down 340 feet, making it the deepest on the divide sunk from the surface. The shaft is nine feet in the clear, in two compartments—one of five feet for hoisting and the other four feet for pumps and ladder. The machinery consists of three boilers of 60-horse power, a single drum-friction hoisting engine, with 600 feet of wire cable, an 18-inch blower and six pumps. At a depth of 230 feet there is a T drift 16 feet back, then 30 feet long at right angles. This is dug down about six feet and is used as a reservoir. There are about 14 inches of water in the mine, most of which is caught at the level. Three pumps are stationed here—two in action and one in reserve, and another is placed at the bottom.

Mining and Scientific Press, V. 57, 10/13/1888, p. 240

Forest Hill Divide.—Placer Herald, Oct. 6: Very little work is doing at Yankee Jims in the mines. Welker & Kennedy are running drifts in their Georgia Hill mine preparatory to the systematic working of the mine. Charles Trafton is running his tunnel ahead into the same hill and enlarging it. Georgia Hill has yielded an immense amount of gold, having paid from the grass down to the bedrock. There is no doubt of the existence of a back channel, which will yield a rich harvest whenever it shall be struck by the lucky prospector. At the Gray Eagle mine, Mr. Durning is busy erecting new hoisting works. The shaft is down to bedrock and is over 350 feet in depth, and the old hoisting works are not strong enough to do the work. The Dardanelles is paying richer than ever. The gold is coarse and heavy and plentiful and is exactly like that in the rich Mayflower channel. The gravel is also of the same character as that of the Mayflower. The mill is running night and day and works to perfection. All the works are now under roof. The work is going along satisfactorily under the skillful management of Supt. W. H. Grinnel. The mine is dry and well ventilated, and is a very comfortable place for the men to work in. Gen. Hamilton employs about 60 men and is enjoying a revenue of several hundred dollars a day over and above running expenses, Supt. Chappellet is pushing the work at the Mayflower. The tunnel, on Sept. 30th, was in 5503 feet. At this point they have begun an upraise and will doubtless be in the channel before this item appears in print, as they expect to run 20 feet only. As soon as gravel

is struck and drifts are run and other preparatory work is done, a large force of men will be put on, and we can expect to hear of wonderful developments. This mine is the richest on the divide, having yielded \$193,000 in eight months, and when, owing to the difficulty of handling the water, the bedrock was not cleaned or creviced; but now the tunnel will drain the entire mine. At present there are 32 men at work in the hoisting works and tunnel. Twenty seven men are working at the new mill at the mouth of the tunnel. This mill is a mammoth one and will contain 20 stamps. It will be worked by steam and water-power, Mr. Chappellet expects to have the mill finished by the loth of November. At the Live Oak some five men are at work running a drift from the upraise which connects the tunnel with the upper lead. This upraise begins at a point 1800 feet from the mouth of the tunnel and is 65 feet in length. The drift will connect the Naugatuck ground with the Live Oak. This drift will be 50 feet in length and is in gravel ten feet in thickness. This gravel prospects very well and is expected to pay well when the ground has been put in proper shape for working. The gold is fine. Supt. Dodge is extending the second upraise in the Baker Divide tunnel and intends to drill from it in a direction parallel with the course of the tunnel. Mr. Dodge employs ten men. J. C. Scott has men at work on his mine on Volcano canyon. He is preparing to open up his claim there. The Breece & Wheeler claim gives employment to 26 men. The breast is 60 feet in width, but the yield this month is not so large as it was the preceding month.

Mining and Scientific Press, V. 57, 10/20/1888, p. 264

Very Rich.—Placer Republican^ Oct. 6: The output of gold from the Breece & Wheeler mine at Bath during the past week has been something phenomenal, even for that rich and steady mine. The working place is about one mile and a half from the entrance to the tunnel, and the breast is probably 40 feet wide and six feet high. The bulk of the gravel is richer than usual, while the bedrock is covered with coarse gold, some of it actually going as high as \$1000 to the pan. The Breece & Wheeler is just now the Bonanza of California.

Mayflower.—Republican. Oct. 10: The second upraise in the big tunnel of the Mayflower mine near Forest Hill was completed last week, and an abundance of very rich gravel was found. The first upraise was made about four months, ago at 5200 feet from the mouth of the tunnel. Good prospects were found, but it proved to be too high on the rim. The present upraise is at the 5500-foot point and is 28 feet high from the incline. Supt. Chappellet broke through five days ago and found the gravel exactly the same as in the old Mayflower works three years ago, and prospecting about \$7 to the pan. A telegram received from him yesterday says it is growing richer and richer. At this point, however, the bedrock is still pitching a little to the east, so that the incline is being pushed on its present level about 50 feet further and then another upraise of 20 feet will be made through the bedrock into the channel. There is now no doubt that this third upraise will strike the lowest part of the channel, and the calculations made by Mr. Chappellet and Anthony Clark three years ago will have been verified almost to a foot. When they located the big tunnel in the Consolidated Justice, adjoining the old Mayflower ground, they estimated that it would have to be 5550 feet long and that it would bring them 60 feet under the channel. This low level was adopted so that a branch of the tunnel could be run down stream and all the lower ground be worked. But, to avoid a 60-foot upraise, an incline was made from the tunnel level so that the present works will be reached through an upraise of only 20 feet. This point is in the Consolidated Justice and between 1200 and 1500 feet from the old Mayflower works. The results of the last week are not only a triumph of engineering skill, but another proof of the extent of the main channel down the divide and the richness of the Co. Justice ground.

Mining and Scientific Press, V. 57, 10/27/1888, p. 280

Forest Hill. — Placer Argus, Oct. 20: The gravel mines in the vicinity of Forest Hill are showing up well and those who are in a position to know claim that the palmy days of the past will be reenacted, and that the mining industry will be revived, There is unquestionably good territory in that section, and all that is required is capital to develop it The Valentine Bros, who recently purchased the Hathaway mining property will soon erect a mill and commence work in earnest. This property is well developed, and under good management will become a heavy bullion-producer,

Mining and Scientific Press, V. 57, 11/24/1888, p. 348

Gray Eagle.—Placer Herald. Nov. 17: The Gray Eagle Co. has put in a Cornish pump in the shaft The new boiler is on the grounds, and the new hoisting works are going up. The old machinery is being replaced by new.

Mining and Scientific Press, V. 57, 12/1/1888, p. 364

Heavier Machinery.—Placer Argus, Nov. 24: The Gray Eagle mine is being fitted up with heavier machinery. "They have bought a 75 horse-power engine and two large Cornish pumps, a jack head and a plunger. There are three large boilers in position and the other machinery is being put up as rapidly as possible. A large building, 50x70, is to be erected and work in the shaft will be resumed in about a month.

The Hogsback Mine.—Placer Herald, Nov. 24: This mine is about 2 1/2 miles above the Indian Springs house, and extends in nearly an easterly direction across the divide. It has been prospected for years by a company that had sufficient faith in it to start a tunnel, which was subsequently abandoned on account of its being too high. In 1886 the mine was bonded to the French company which owned the Golden River, Red Point, and other claims in the Iowa Hill and Damascus mining districts. This company on May 1st of that year began grading at a point 500 feet below the top of the main ridge and 40 feet below the mouth of the old tunnel. On the 18th of May the tunnel was started. For 244 feet the tunnel was run by hand, but the remaining distance has been run by Burleigh drills. On the 3rd of October last the tunnel had been driven into the mountain 900 feet, and at the present writing is 1300 feet in length. The rock is quartzite of varying hardness, but never so soft and shelly as to require timbering. At the goo-foot point the rock was extremely hard, necessitating the use of several drills to put in a hole for blasting. Although the rock was hard at the entrance, as high as 48.7 feet were made by hand drilling in one week. The Burleigh drills have made 73.5 in one week. The grain of the rock, which at the mouth crosses the tunnel at the distance of 900 feet, swings around 90 degrees, or, in other words, is parallel with the direction of the tunnel. This is a curious fact, and the change of direction is supposed to have been caused by the breaking down of the outer portion of the rock by some convulsion of nature. The tunnel is 7x8 feet and extends in a straight line on a grade of three-eighths of an inch to 12 feet, and is comparatively dry. The drills are run by compressed air, William Ralston is superintendent and J. T. McCall foreman of the mine. These young men deserve a deal of credit for the efficient and systematic manner in which they have managed the enterprise. They can give some of the veteran miners points in developing a mine. The tunnel has been run so far at a comparatively low cost, not exceeding \$12.42 a foot, including materials.

The Pioneer Quartz Mine.—Herald, Nov. 24: This mine is situated near Damascus and is the property of ex-Senator Fair. The ledge is a big one, varying from a few feet to 40 feet in thickness. The tunnel is over 600 feet in length, and drifts have been run from it for a

considerable distance along the lode. The rock is good milling-ore and very rich prospects have been taken from it. The company has built a very good wagon-road from the top of the ridge to the mine. The greatest undertaking is the building of a tramway from the mouth of the tunnel to the mill which is in process of erection in Humbug canyon. This tramway is 2430 feet in length and is a trestle on which are laid the rails. The grade for a distance of 450 feet is about five feet to the rod. The cars will be run by an endless cable. A ditch has already been dug along the hillside to Damascus canyon, where dams have been built for the storing of water. The mill will have 20 stamps and will be ready to crush ore by the time water comes. This enterprise has given employment to quite a large force of men this fall and will give quartz mining a new impetus in the Damascus mining district.

Mining and Scientific Press, V. 57, 12/8/1888, p. 376

On the Divide.—Placer Argus, Dec. 1 The channel at the Dardanelles has widened out and is yielding extra good pay. The prospects have brightened up during the week, so that a large force will be employed soon. The Swindle Hill claim is being worked with good prospects. Riley, Hoffman & Jewel have tunneled at the Last Hope on one of the bends in Brushy canyon. The location at the bend is fine, and the prospects are that they will have one of the best claims on the divide. Good pay has been taken out already. Some men are at work on the tailings from the Missouri claim in Devils canyon. They are well pleased with the returns The 20-stamp mill at the Mayflower is about finished, and is expected to start this week. The gravel in the mine is prospecting rich. A large force of men will be put on soon. F. Chappellet is going to start a tunnel on the Eureka, about four miles from the Red Point. The Gray Eagle men are hard at work putting up their heavy machinery. L. Remler says that there has never been a better outlook for the Divide than at present. All the mines have excellent prospects and are all on the point of putting on large forces. The miners all receive their pay regularly, and all kinds of business are on a solid basis. The Divide is booming without a doubt.

Mining and Scientific Press, V. 57, 12/15/1888, p. 400

The Hidden Treasure.-Placer Herald, Dec. 7: This mine still continues to yield handsome dividends to its fortunate owners. The tunnel is now about 8000 feet in length, and on a uniform grade of 70 feet to the mile. Sometimes the grade carries the tunnel several feet into the bedrock and sometimes along its surface. The work is still done on the eastern side. Gangways are run off every 200 feet, and these are connected at the back end by crosscuts. The blocks thus formed have an area of 20,000 square feet. These gangways and crosscuts give a good circulation to the mine. The bedrock at the upper end of the tunnel is principally black slate which glistens like coal in the candle-light. Now and then this black slate is displaced by white Occasionally a petrified tree trunk is found in the white quartz gravel. In addition to the improvements that were made in the tunnel last year the company put in nearly 1400 feet of sluices. These sluices are paved with wooden blocks, boulders and broken car wheels. The latter make splendid rifles. At the end of the first set of sluices is an under-current, 36 feet in length by 12 in width. This under-current is so made that it can be raised or lowered according to the head of water. This is a new feature and works very satisfactorily. Some 150 men are employed in the mine. The work goes on night and day, and every carload of gravel is prospected before it is rolled out of the tunnel. The getting out of lagging and timbers employs quite a number of men. E. Wooldridge has charge of this work under contract. The mine is worked systematically, and is under the

efficient management of Harold T. Power. Quite a town has grown up around the mine, on the El Dorado Canyon slope.

Dardanelles.—Placer Herald, Dec. 7: Work in the Dardanelles has been delayed by water. Some underground reservoir has been tapped and has discharged a 20-inch stream for the last ten days. Some of the men have been laid off temporarily until the water is got under control, as there is not room for them all to work. The mill has not been run steadily for the reason that there has not been a sufficient quantity of gravel taken out, since the water trouble began, to feed it. The gravel is as rich as ever.

Forest Hill.—J. C. Scott of Forest Hill made the Herald a social call this week. Mr. Scott owns in several claims in the vicinity of Forest Hill, and has been cleaning out and retimbering the tunnel on his Volcano Canyon claim. This tunnel is 625 feet in length. Mr. Scott has started an upraise about 600 feet back from the mouth of the tunnel but has stopped work for a time on account of bad air.

Mining and Scientific Press, V. 57, 12/22/1888, p. 416

New Mill.—Placer Republican, Dec. 12: The new 20-stamp mill of the May Flower mine is completed and was started up yesterday. This new mill is called one of the best in the Slate. There is a self-feeder with each set of five stamps, and a Eureka rubber in front of the apron of each five stamps. At present the machinery is run by a 75-horse power engine. The boiler is 16 feet long and 54 inches in diameter. The mill is also equipped with a five-foot Pelton wheel so that the stamps may be run either by steam or water. A 22-inch pipe brings water to the wheel from the new Union ditch. The pressure is 440 feet. The machinery is placed in such a way that water alone may be used when there is the necessary quantity, or steam can be used alone if there is no water; or water and steam combined may be used if found advantageous at any time. Everything at the mine is looking very well.

Live Oak.—The Live Oak mine near Forest Hill is still prospecting, and for the last two weeks it has looked encouraging. A drift of 200 feet has been run in the bedrock, and an upraise of 37 feet at the end of the drift shows indications of a new channel which they are now trying to cross by a crosscut. So far the bedrock has pitched eight feet in each 12 feet of drift. The signs are good - blue cement and blue gravel.

Mining and Scientific Press, V. 57, 12/29/1888, p. 428

HOGSBACK.—Placer Republican, Dec. 14: W. C. Ralston, superintendent of the Hogsback mine, went to Georgetown to-day to secure an extension of the bond on the mine for 60 days. The tunnel has been pushed ahead, and at a distance of 173 feet from the point where it entered cement, ran into gravel. This continued for 43 feet, when to the surprise of all it has broken through into another body of cement. Two shafts are being sunk to find the channel.

Red Point —The output at the Red Point mine this month will be at least 500 ounces, and the company will declare its first dividend in Pans on Christmas Day. The dividend will probably be small, but it is a pretty good showing for a new mine, and all from development work at that.

Mining and Scientific Press, V. 58, 1/19/1889, p. 44

Sale of the Hogs Back Mine. — Georgetown Gazette, Jan. 10; In June. 1887. the property was bonded to Chas. F. Hoffman, superintendent of the Red Point mine, acting for a company of French gentlemen represented by G. A. de la Bouglise, they paying \$3000 cash for the privilege of a bond to run 18 months, carrying the option to purchase the property at any time within that

period on payment of \$25,000. In the spring of 1888 a new tunnel was started by the French company, under the superintendency of W. C. Ralston, and pushed with all the vigor possible by means of steam air compressor and Burleigh drills supplemented by the strong arms and good judgment of the miners under the foremanship of Jack McCall. By November the tunnel had been driven over 1200 feet, and between that point and the 1300 foot station they broke through the rim, which showed that the new tunnel, which had been run over 80 feet below the old one, was also too high; it was pushed ahead, however, in cement considerably more than 100 feet, when a body of gravel was encountered through which the tunnel was pushed about 40 feet and again into cement, in which material they are still running. Two shafts are being sunk, one of which, at last accounts, had reached a depth of 60 feet without finding bedrock. On Dec. 20, 1888, about one week before the expiration of the original bond, an extension of 60 days' time was granted by the Hogs Back company, but this was not availed of by the French company. Mr. Ralston having come forward on last Tuesday, January 8th, and paid to Mr. Fitzgerald, who has been secretary and treasurer of the Hogs Back company since its organization, the \$25,000, and received in return deeds to the property together with all of its stock and all papers, etc., pertaining to the property. From what we can learn of the property we believe it will prove to be one more to be added to the number of paying gravel mines which have made the Forest Hill divide famous.

Mayflower.—Placer Republican, Jan. 11: The Mayflower's 20-stamp mill is now running day and night without any stoppage whatever. All the machinery is working very smoothly. The four ore feeders have increased the crushing capacity of the mill, and the Eureka rubbers secure the saving of all the - coated gold and of the floating quicksilver. These two additions to the old mill of the Mayflower are very important improvements. The mine is opened with two breasts in the raise from the main tunnel, one breast going straight down stream. the other due north to connect with the old works. Both breasts look well.

Eureka.—The Eureka claim contains 2400 acres and has 3 ½ miles of the channel; also a water-power of no less than 80 miner's inches in the driest part of 'the year. A tunnel is now running to tap the channel. This work is performed by two shifts day and night. The company expects to cut the channel at 1200 feet, and the indications are exceedingly favorable. This new enterprise in a short time will add another mill to that divide and employ a large number of men. Clark & Chappellet, the most thoroughly posted miners of the Forest Hill divide, will make another big claim there.

A Gravel Mine.—Tidings, Jan. 11: The good people of Colfax are anticipating an enhancement of their prosperity during the coming year, inasmuch as the Pacific bank of San Francisco has interested itself in a mining enterprise in the locality. The bank commenced operations on their claim — gravel—about two months ago. and are sanguine of lapping a rich channel. The scene of activity is on Bear river at a point about three miles from Colfax.

Paying Well.—Placer Herald^ Jan. 12: The Breece & Wheeler mine is paying richer than ever. A back channel has been struck which carries a different kind of gravel from that which has been worked. Report has it that \$10,000 were taken from one carload last week.

Mining and Scientific Press, V. 58, 2/2/1889, p. 74

Spring Garden.—Placer Argus, Jan. 26; The Gray Eagle mine, which is the principal point of attraction, will soon be ready to start up again. I say it is the point of attraction from the fact that mine-owners for miles on each side above and below are waiting to see what the Gray Eagle are going to strike before they will undertake to locate the exact portion or the depth of the channel.

That the main channel comes down the divide through the Gray Eagle Go's, ground, all concede. That they have a mine none here doubt. But those above and below them do not like to "face the music" to the tune of the thousands required to prospect a deep channel mine. The Gray Eagle Co. being the pioneers in this section deserve great credit for their energy and enterprise, for undoubtedly they will be the means of bringing thousands of dollars to this point. From the present outlook at the Gray Eagle works, that company is determined to know what is on their ground. They are putting in one of the largest and finest pumping plants in the county, which, when completed, will be able to handle an enormous body of water. F. Chappellett is doing some work on his Owl creek property. The Mountain Tunnel Co. have been doing assessment work on their claim. Mr. Gardner has made a rich strike in the McKinstry claim. Good reports come up from the divide. A Napa company, under the management of Mr. Gardner, are prospecting a quartz ledge near the U. S. Ranch and show some fine specimens. Times are lively and all anticipate a large output of gold for 1889. There has been some valuable mining ground taken up as agricultural ground in this district, but the miners are determined to dispute every foot of ground with the agriculturists.

Forest Hill.—Placer Argus, Jan. 26; This place is one of the liveliest in the county. The Mayflower mine has a large force of about 100 men at work and their large stamp-mill is running continually. Good paydrift is being taken out. The Breece & Wheeler mine at Bath has struck some of the richest pay ever taken out of the mine.

Mining and Scientific Press, V. 58, 2/2/1889, p. 78

The Forest Hill divide, Placer county, the Butte creeks, and the Magalia district in Butte county, and the vicinity of Bald mountain in Sierra county, continue to be the sites of the principal drift operations in California, the business in the first-mentioned locality having, during the past year, undergone a considerable expansion. In nearly all the central and northern counties more or less drift mining is practiced, very little being carried on south of Calaveras county. For exploiting this class of deposits several long tunnels have lately been run, one of these driven by the Maj flower Company on the Forest Hill divide, and but recently completed, having a length of 5000 feet. The Breece & Wheeler tunnel, in the same neighborhood, is 7000 feet long, while the tunnels driven in the Mountain Gate and Hidden Treasure mines, further up the divide, have each a length of 8000 feet, there being elsewhere in the State several of these structures equally long. The cost of driving these tunnels ranges from \$6 to \$15 per linear foot, the average cost being about \$10.

While the gravel now being extracted from the Breece and Wheeler mine yields at the rate of \$9 per carload of one ton, this is more than three times as rich as the average throughout the State, and much above the average grade heretofore taken from this mine. Though the Mountain Gate and the Hidden Treasure affords each a large amount of material, it does not, taken all together, yield over \$2.50 per carload.

The number of men employed in this class of mines varies from half a dozen or less to 150. Very few of them, however, employ over 100 hands—generally about 20 or 30. The number of carloads taken out daily ranges from four to eight per man, the average being about six. A good deal of this drift gravel has to be crushed with stamps before the gold can be recovered from it. this class of material is, however, apt to be rich, rendering its reduction profitable notwithstanding the increased cost of working it.

Mining and Scientific Press, V. 58, 2/9/1889, p. 94

Gold Dust.—Placer Herald, Feb. 2: General Hamilton has succeeded in controlling the water in the Dardanelles, and the old mine is now turning out lots of dust.

Mining and Scientific Press, V. 58, 2/23/1889, p. 130

Gravel Mines.—Placer Herald, Feb. 16: The Herald is indebted to Mr. A. Clark for the following mining news: The last cleanup at the Mayflower yielded 1696 ounces or about \$30,528 for a run of 30 days and 10 hours. The amount of gravel washed was 1665 tons, which would give an average of about \$18 per ton for the run. An upraise has been made in the main tunnel, whence a drift has been run in a southerly direction through gravel that looks as rich as that in the main breast. The track is being extended down the canyon to the Live Oak mill, which has been leased and will be started as soon as water comes. The company will then have 30 stamps at work, and the output will be materially increased. The mine now gives steady employment to no men. At the Hogsback mine a second shaft, 100 feet farther back in the hill than the first one, has been sunk to the depth of 97 feet without striking bedrock. As bedrock was struck in the first shaft at 66 feet, this would indicate an abrupt decline in the bedrock, and the company may be saved the expense of running a second tunnel. The Red Point and the Breece and Wheeler mines are still paying well. The Eureka company, whose claim is nearly opposite the Red Point, after running a tunnel 700 feet in length, have been compelled to start a second tunnel 110 feet lower than the first, which is now in 80 feet. The Dardanelles is still paying very comfortable dividends.

Mining and Scientific Press, V. 58, 3/2/1889, p. 152

Quartz and Gravel Notes.—Placer Herald, Feb. 23: The White boys have taken out several thousand dollars from their ledge on Duncan Hill. Henry Purdy is running a tunnel for copper at Whisky Diggings with good prospects of striking it rich. Ned Gilbert reports scarcity of water at Oregon Bar. The miners can work a few hours only each week. The Hidden Treasure mine still rolls out its wealth of gold. The dividend to each shareholder was \$115 for January. George Geissendorfer informs the Herald that he is running a tunnel on the Live Oak quartz mine, near New England mills. Thomas Sheridan has run a powder drift in the Pride of the Divide mine and is hoping water will come soon to help him make a cleanup. "Thirty days" should have been "13 days" in the notice given the cleanup at the Mayflower mine in our last week's issue. The mine has yielded over \$70,000 since the mill started on the nth of December last.

Mining and Scientific Press, V. 58, 3/9/1889, p. 164

Forest Hill. — Placer Republican, Feb. 26: Wm. Dodge, Jr., of Forest Hill was down yesterday. He reports that he still has 14 men pegging away at the Baker divide mine, but since last September all work has been done by hand, on account of the lack of water. The main tunnel of the mine is in 3300 feet, but all recent work has been done in drifts from the upraises and is in the nature of prospecting. The company hopes to make some provision for water in the near future.

Mining and Scientific Press, V. 58, 3/30/1889, p. 224

Cleanup.—Placer Republican, March 21: A cleanup is made at the Mayflower mine every two weeks. Last week the result was about \$31,000, and the preceding cleanup yielded \$52,000. Small Pieces. — Several small pieces of gold have been picked up in the streets during the recent rains. The other day J. B. Chamberlin found a three-dollar nugget on the road down from his house.

Mining and Scientific Press, V. 58, 4/13/1889, p. 266

Michigan Bluff.—Placer Herald, April 6: The Herald is indebted to A. Rudgers for the following mining news from Michigan Bluff and vicinity; Robert Watson has been made superintendent of the Dam claim. The company will soon begin an air shaft, which is necessary to the working of the mine. This shaft will be 500 feet in depth. The tunnel, which is 3600 feet in length, has been straightened in places and T rails have been laid. During the last year a gravel channel running nearly north and south has been struck. This channel is 240 feet wide and holds rich gravel, but will require hoisting apparatus, as it is lower than the old channel and carries a large body of water. The Co. and those who have visited the mine think it is the Mayflower channel, as the gravel is similar. F. Chappellet & Co. are running a tunnel into the Eureka claim, which is three miles above the Dam. At the Hogsback a drift is being run across the channel in search of the other rim. The Red Point and Hidden Treasure mines are paying big. The Sutcliffe boys have been doing well in El Dorado canyon. They have found new ground in many places in the bed of the canyon which has paid handsome dividends. They haven't said much about their claim, but it is known that it has paid as high as \$1500 a week for several consecutive weeks. Two mining experts have been examining the ledges in El Dorado canyon, and they think systematic prospecting would discover rich quartz mines there. William Muir is taking out good pay at the Oro, which is situated just above the old Weske mine. The gold is coarse and heavy.

Mining and Scientific Press, V. 58, 4/20/1889, p. 278

Gray Eagle Pumps.—Cor. Placer Herald, April 6: The Co. has put in some good machinery and everything is going all right. There is a big link-motion engine, 75-horse power, which runs the plunger pump. The plunger was set down 130 feet at first, and after pumping down a way steam pumps were put below to pump to a tank at the plunger. After getting down about 100 feet the steam pumps threw to the top and the plunger was lowered to the pump and stationed permanently. The steam pumps were then used to throw the water to this point till the bottom was reached, then they were hauled out and a jack-head bucket-pump put on the bottom. These pump rods were hung to the rods of the plunger so both pumps run on the same stroke. There are about 20 inches of water, which is handled on seven strokes a minute. All the steam pipes have been hauled out, new ladders put in from the bottom, the shaft boarded, rubbish cleaned out, and will begin sinking Saturday or before. They expect to sink about 20 feet, depending on the rock, and then commence drifting. Everything is in good shape and the indications are that this will be a good mine.

Mining and Scientific Press, V. 58, 5/25/1889, p. 376

The Mayflower.—Republican, May 16: The Mayflower at Forest Hill has developed into a mine which promises to become as permanent and steady in its output as any of the famous quartz mines of Grass Valley. It will be remembered by miners that the new main tunnel which leads under the channel is 5585 feet long. From the end of this tunnel two gangways are run, one north and the other south under the old river channel in which the gold-bearing gravel is deposited. These gangways run through the bedrock and are a little smaller than the tunnel, being 6 ½ feet high and 5 ½ feet wide. The north gangway has now been run a distance of 440 feet, and the south gangway 525 feet. In the channel over the latter the breast of gravel now being worked is 75 feet wide and six feet thick. In the north gangway, the breast is no feet wide and six feet thick. At the north breast, which leads toward the shaft of the old works now filled with water, they

have within a few days encountered a large stream of water which Supt. Chappellet thinks drains the old works and the whole mine. This breast is 920 feet from the old works, and the water is supposed to run down that distance through the gravel. When the mine is drained there will be little trouble in working northerly. Some prospecting has been done northeasterly from the junction of the tunnel and gangways, with the discovery of another channel as a result. It is probably the Orono which they found in the Breece and Wheeler. The Mayflower now employs 135 men, of whom 60 are miners. The others are engaged on outside improvements. The company is putting up a new boiler at the mill and will also put in ten more stamps immediately. They are now averaging 150 tons of gravel a day, and also take 60 tons of bedrock from the gangways. The mill and compressor are being run by water-power, but steam must be used during the summer months, and the new boiler is for that purpose. Since the mine has been in operation through the new tunnel, the company has taken out \$122,000. The first cleanup was made January 2d, and the last on the 2d inst. The average yield to the carload of 2250 pounds has been \$10 50, and the cost of mining and milling is \$2.50 a ton. The gold is 8gi fine.

Mining and Scientific Press, V. 58, 6/1/1889, p. 396

Pioneer. — The pioneer mine below Damascus is as good as ever. A great deal of work has been done in the way of opening this mine. The company is thinking of adding more stamps.

Mining and Scientific Press, V. 58, 6/8/1889, p. 416

Gravel.—Placer Herald, June 1: At the Eureka Con. mining gravel claim, located between the Hidden Treasure and the Hogsback, two tunnels have been run, one 860 feet and the second 300 feet. The latter tunnel is expected to tap the main channel at the depth of 1300 feet. Messrs. A. Clark and F. Chappellet are largely interested in this mine and have every reasonable expectation that it will be equal in richness to any mine ever opened on the Forest Hill divide.

Mining and Scientific Press, V. 58, 6/15/1889, p. 436

The Gray Eagle.—Herald, June 8: Last week several of the directors of this mine arrived at Auburn on the evening train, and next day drove over to the Forest Hill divide. They were accompanied by Mr. R. L. Dunn, their engineer, and interesting developments were looked for by the public. But the public has been disappointed, and the public is puzzled. All that can be learned is that work has been suspended, the force of men taken off, and the shaft is filling up with water. It is reported by some who ought to know that a well-defined channel was reached and gravel which returned a very satisfactory prospect was taken out. It is also said that a tunnel will be started immediately, but there is no movement at present to indicate it. There is an air of mystery about the whole affair which the curious are at a loss to account for. We sincerely hope that this venture for which such brilliant success was predicted is not to pass into history as an expensive failure.

Mining and Scientific Press, V. 58, 6/22/1889, p. 456

West Point,—Herald, June 15: G. W. Snyder, foreman of the West Point mine, was in town Monday. Mr. Snyder says that gravel of wonderful richness was struck last week. From one panful gathered from the richest part of the lead, 18 ounces were taken. The channel is 300 feet wide and the gravel rolls out an average of \$11 to the carload. This mine has paid regular dividends right along since it was opened, and from present prospects seems destined to rival the most famous mines on the divide in richness.

Forest Hill.—J. C. Scott of Forest Hill reports everybody is encouraged by the good news from the Red Point mine. At the Dardanelles the water has been got under control and sinking to find the bedrock is going on uninterruptedly. The Baker Divide Co. will begin to run their main tunnel ahead right away. Breece & Wheeler are taking out good pay. The channel has taken a turn to the eastward.

Mining and Scientific Press, V. 59, 7/6/1889, p. 4

A Rich Gravel Mine.—Grass Valley Union, June 29: The Red Point gravel mine, which is on the auriferous old river channel in the eastern portion of Placer county, is now yielding at the rate of \$1000 per diem, the gravel being very rich. The Red Point mine is owned by the French syndicate which purchased the Succor Flat gravel claims near Iowa Hill, a few years ago, at an enormous figure, only to discover a few months afterward that the property was comparatively worthless, the swindle being among the worst ever perpetrated on the coast. After the failure of the Succor Flat investment the Frenchmen were recommended by John B. Hobson of Iowa Hill to purchase the Red Point ground and undertake its development, as its location was considered favorable. The syndicate had some money left from its Succor Flat purchase, and concluded to take the ground, paying \$30,000 for it. During the last two years and over, a tunnel has been driven into the gravel channel, and as stated above, rich pay has finally been reached. It is possible the syndicate may be lucky enough to make up its loss of \$400,000, out of which it was swindled by the Succor Flat investment.

Improving. — Placer Argus, June 29: Mr. Chappellet writes with regard to the Live Oak mine: "Since last report the ground in prospecting drill has improved. The bedrock does not raise more than the ordinary grades of other channels, and as we are on the same level as other channels (May Flower with the rest), it is to be expected that we will find good ground just ahead of us."

Mining and Scientific Press, V. 59, 7/20/1889, p. 44

Damascus.—Placer Argus, July 13; At Damascus they have made an upraise from an east branch of the main channel of Mountain Gate and are working on the Damascus side with good results. A tunnel has been started at the Gray Eagle. The tunnel will be run from Owl creek to the present shaft, a distance of about 2600 feet. The tunnel is to be 7x7 feet and run on a grade of one inch to the hundred feet.

Red Point,—At Red Point the main tunnel is 2100 feet to where they made their upraise and struck the channel. They have suspended present work in the gravel and are putting in an east branch to the main tunnel, starting from the 1800-foot point, which will extend 800 feet. They are using Burleighs and are in extremely hard rock at present. They stopped working the gravel June 14th and cleaned up for the 14 days' run in June about 600 ounces, the gold being worth \$18.90 per ounce. From one-half the floor of its dump, taken up last week, over 20 ounces were washed. They get their water supply through a seven-inch pipe-line, 6400 feet in length, from Humbug canyon. During Mr. Hoffman's visit to Paris the mine was paying finely, and Mr. Snyder, the foreman, sent daily cable dispatches reporting the yield, which was something over 50 ounces per day. J. B. Hobson showed us some rich specimens of cement from the Morning Star mine. He says that in two years' time four dividends of 50 cents per share have been paid, and an indebtedness of \$10,000 has been canceled; 2000 feet of bedrock tunnels and gangways have been opened; \$55,000 cleaned up, and their present tunnel, when completed, will place the mine in a first-class condition for advantageous work. Hon. C. F. Reed has purchased the

Drummond mine at Cottage Home and intends putting up a mill directly. This promises to be one of the richest quartz mines in the State, as specimens Mr. Hobson showed us indicate. The old Linn mine, now the Pioneer, under the control of Fair & Davis, is being well worked and is paying well. The Herman mine near Wisconsin Hill, under the new management, with new mill and appliances, may be expected to be in first-class condition shortly. The Washington mine has been paying at the rate of about \$2000 per month for some time.

Mining and Scientific Press, V. 59, 7/27/1889, p. 64

Forest Hill Divide.—Placer Herald, July 20: At Yankee Jims there is but little being done in the mines. Harry Adams has been putting the Red Sea in a good condition for work. He has laid iron rails, and from this fact and other signs it is reasonable to believe that the company means business. Charles Trafton is at work at his tunnel which is now about 800 feet in length. This tunnel, when completed, will be low enough, he thinks, to work the Dardanelles, Mountain Tunnel and several other mines. Mr. Trafton has been pushing the tunnel alone for several years and we trust his labor will be rewarded. T. Gilbert is running a drift for a top lead in the Ben Franklin. The Dardanelles has been shut down temporarily. Superintendent Dodge is running a drift above the tunnel in the Baker Divide ground. At the Mayflower there is every indication that the gravel is as rich as ever. The gravel is not wholly blue, but assumes various shades, being chocolate, gray and blue colored in different parts of the deposit. The tunnel is 5585 feet in length; 750 feet of it is an incline, followed by a level 50 feet in length. From this level to the gravel is an upraise of 30 feet. From the tunnel gangways have been run up and down the channel, which extends in a northerly and southerly direction. The north gangway is 666 feet, and the south gangway 784 feet in length. From these gangways upraises or chutes have been run to the gravel above. The pay gravel has a depth of six feet. Between chutes one and two in the north gangway a body of yellowish-colored gravel and cement has been met which contains considerable water. This new deposit is entirely different from that of the Mayflower, not only in color but in kind, being a quartz formation. Some think this is the Orono channel, but it has not been sufficiently prospected and explored as yet to ascertain its extent or from what quarter it comes. It is less than 200 feet in width, as the Mayflower gravel comes in again near chute number two. The main channel, like all other channels, varies in width. The gravel is hard and compact, requiring powder to dislodge it. The cars are pulled in and out by mules, the ordinary number of cars to a train being 6. The mill is run night and day. The 20 stamps are constantly pounding away, and the company is preparing to put in 10 or 15 more. The compressor at the big shaft has been removed to the mouth of the tunnel and assists in running the drills and in ventilating the mine. Just at present 135 men constitute the working force. As many as 200 have been employed at one time. The mine and mill present a busy scene, and there is every indication that the channel will continue to yield its golden harvest with all the profusion that has characterized it since the mine was opened. Twelve men are employed at the Breece and Wheeler mine. Mr. Breece is preparing to open up the breasts in such a manner as shall give room for a large force of men to work. The pay gravel is a foot in depth. The bedrock is shelly and is rich in gold. The gravel is dark and cemented, and from some specimens shown us by Mr. Breece must be extremely rich. The gravel was literally packed with gold nuggets from the size of a cucumber seed to a pigeon's egg. In one shallow crevice 30 feet in length \$14,000 was taken out a short time ago. The tunnel is in over 8000 feet. No Chinamen are employed in this mine. T. N. Hosmer has discovered a new channel under the Willett channel, that was worked in

1854. He thinks the deposit is 1000 feet long. The gravel at present pays good wages, but he expects to find bigger pay shortly.

Mining and Scientific Press, V. 59, 8/3/1889, p. 84

Pick and Shovel.—I/e raid, July 27- Good ore has been struck in the Pioneer mine. W. H. Bellows and J. Rathborn of Dutch Flat have bought the Lost Camp mine, near Blue canyon, and are preparing to drift. Parties are putting up a quartz mill on the old Red Stone ledge above Blue canyon At the Hogsback they have sunk over 250 feet, and drifted across the channel. They have ascertained from sinking the new tunnel will have to be at least 300 feet below the tunnel run last year. The 10 extra stamps have been put in the Hathaway mine, and would have been started last week, but were not, as the tappets were too small. Hon. C. F. Reed has purchased the Drummond quartz mine of J. B. Hobson and has 10 men at work on it. This ledge prospects well and is of unusual width, being in some places 29 feet wide. Mr. Reed is now sloping out and intends to increase the force of men as soon as space will permit. He will soon have a Huntington mill in operation for testing the ore as it is taken out. J. B. Hobson informs us that the channel at the Red Point mine is now opened a distance of 1200 feet and is paying big. The Boston Bar Co. will resume mining in the Middle Fork as soon as water can be obtained from the California Water Co. sufficient to run a hydraulic elevator. The Big Oak Flat Co. is preparing to extend its tunnel, which is now 100 feet in length. Good prospects have been found and the company has strong hope of striking it big. Luke Ferguson has taken out some very rich ore from the Kirkland mine, which he has sent to New York, whence it will be sent to Europe to be tested. D. Feliz is taking out some good ore from his quartz mine in Bear valley.

Mayflower.—Placer Argus July 23: Anthony Clark has sold the Orino claim at Bath to the Mayflower Co. The Live Oak tunnel is so near the Mayflower mill that they may readily use it when anything occurs that will give them time. The Mayflower has ground opened sufficient to occupy the mill and additional stamps for months to come. The Horman mine at Wisconsin Hill is now employing about 20 men, all white. The new air-shaft is about completed, and the work on the mill progressing finely, although the material is arriving rather slowly. Dan Wickman of Placerville is the master mechanic. A boarding-house 20x52 feet and a lodging-house 20x36 feet are already erected. The boiler and compressor are in position, and pipe laid to the face of the tunnel. They intend starting the Burleighs soon.

Mining and Scientific Press, V. 59, 8/10/1889, p. 104

Pick and Shovel—Herald, Aug. 3: The gravel in the Mayflower is richer in the last upraise in the south gangway. A. Clark has sold the Orono claim at Bath to the Mayflower Co. This mine when opened will probably be as rich as the Mayflower. Breece and Wheeler are putting on more men. G. L. Threlkel and partners are well satisfied with the prospects in the May Blossom ledge above Last Chance. The Hathaway mill now has 20 stamps, but only 15 are running, owing to the lack of water. Very rich ore has been struck in the top lead about 150 feet east of the Butt's shaft. The White boys are taking out rich rock in the old Moore ledge on Duncan hill. Their receipts for list week were \$1000. The quartz at the bottom of the shaft is of a singular quality. It can be picked to pieces with the fingers. The Gray Eagle tunnel is now over 50 feet in length and in soft rock. Only four men are employed at the tunnel. The running of the tunnel will be done on contract, Anthony Clark is still prospecting the Big Channel mine.

Mining and Scientific Press, V. 59, 8/24/1889, p. 144

HOGSBACK.—Placer Republican, Aug. 15: On Tuesday of last week the miners at the Hogsback mine struck 20 inches of water, which flowed so fast that the shaft was soon filled to the top, and they barely had time to get out their pumps. The shaft had been sunk 250 feet lower than the tunnel. As the whole works were soon filled up, the only thing to do was to quit work and await instructions from Paris. It is expected that the company will begin work on a new tunnel which Supt. Ralston hopes to commence about September 1st. It will be located 300 feet lower than the old one, and will be 2250 feet long, or 567 feet longer than the old one. It will require about ten months to run it.

Yielding Well.—Placer Argus. Aug. 17: The Breece & Wheeler mine at Bath is yielding the richest ore that has been taken out for years. An increased force has been placed on the mine. T. M. Tharpe and While are taking out rich ore at the Old Moore mine on Duncan hill. Over \$1000 was pounded out with a hand mortar from decomposed quartz last week.

Mining and Scientific Press, V. 59, 8/31/1889, p. 163

Drift Mining.—The Hidden Treasure drift mine. Placer county is yielding low-grade gravel, but it pays. In the last "run" 52,551 carloads of gravel were taken out, averaging 3000 pounds each, yielding \$81,249.45 in gold, from which a dividend was declared of \$29,340. As the gross yield per carload was only \$1.54, this shows admirable management on the part of Harold Power, the superintendent, especially when it is known that the mine has 8000 feet of very bad tunnel to keep up and is one of the hardest mines to work in the district. Competent mining experts in Placer county say that there are over 200 miles of just a good mining ground still unworked in that county.

Mining and Scientific Press, V. 59, 8/31/1889, p. 164

Baker Divide.—Placer Herald, Aug. 24: W. Dodge, superintendent of the Baker Divide mine, at Forest Hill, stopped off at Auburn Wednesday while on his way to San Francisco. Mr. Dodge is still running drifts above the tunnel. Upraises have been made at various points in the tunnel from which drifts have been run, but the channel has not been struck. Altogether 5600 feet have been run in these attempts. The main tunnel is 3300 feet in length and is now in hard rock, and the chances are that the channel is ahead and that the tunnel will tap it in a big curve. The big stream of water that was struck in the first upraise near the mouth of the tunnel still flows with undiminished volume. Mr. Dodge says his company will put in hydraulic elevators in their claim on Boston Bar as soon as they can get the water to run them. The river water has been turned into the Boston Bar tunnel and the river-bed has thus been pretty well drained. They are now mining the old-fashioned way, using a Chinese pump to drain the pit.

Live Oak.—Republican, Aug. 24: Prospecting has been going on quietly at the Live Oak mine near Forest Hill. They have reopened the old William Wear tunnel for a distance of over 300 feet and found gravel the entire length of the tunnel, with the bedrock still pitching. The Wear tunnel was run as early as 1854, but it was abandoned after finding a large amount of water. The water will now be easily overcome in running a drift from the Live Oak lower tunnel. The present appearances of the Live Oak are very favorable, and pan prospects show fine gold from gravel on the high rim. More will be known about this mine as soon as they reach the bottom of the channel, probably within a few days.

Mat Flower.—The channel of the May Flower mine at Forest Hill has lately turned considerably to the west and now runs nearly to the southwest. The gold is coarser and is found near the west rim, while heretofore it has been on the east rim. A few days ago the miners found a nugget

which weighed over five ounces and worth about 895. The company has made an upraise from the north gangway to the Orono channel which was recently bought from Anthony Clark. Last Saturday night they broke through the bedrock into gravel 22 feet from the bottom of the gangway. The gravel is mostly quartz and prospects well from a few pans that were tried. The purchase of the Orono ground with over a mile of channel increases very much the value of the May Flower consolidated property.

Baker Divide.—Placer Republican, Aug. 23: It may be said of the owners of the Baker Divide mine above Forest Hill that they are good stayers. They are still working away in bedrock, and the following is a description of the work that has been accomplished: A. tunnel has been run 3300 feet. At 2200 feet they made an inclined upraise 440 feet, or a vertical distance of 330 feet. Here gravel was struck on pitching bedrock, but there was a large amount of water to contend with, and so another, but vertical, upraise was made at the extreme end of the tunnel. This was pushed up a distance of 125 feet and then a tunnel was run, over what will be the course of the main tunnel when extended, for a distance of 600 feet. Not finding anything there they turned back just half way in this upper tunnel, and at a distance of 300 feet from its beginning they made a 135-foot upraise, from which point they drifted off 150 feet southeast, while the direction of the main tunnel is south, 20 degrees east. At the end of this 150-foot level they raised 30 feet, and then returned to the top of the 125-foot upraise from the main tunnel and extended the 600-foot level back over the main tunnel a distance of 400 feet. At that point they raised too feet and then began on a back level toward their first upraise, which has now been run 280 feet. Summing up these levels and upraises, all through bedrock, it will be seen that the total of the work done has been enormous. The best miners with whom the Republican is acquainted are all agreed the result will be that the owners will have to extend their main tunnel straight ahead several thousand feet before they can develop their mine,

Mining and Scientific Press, V. 59, 9/21/1889, p. 224

Pick and Shovel.—Placer Herald, Sept. 14: The Live Oak Company is sinking a shaft on the west rim. The Mammoth Bar mine is making its owners rich. A. Shurtleff is taking out very rich rock at the St. Patrick. The Hogsback Co. expects to start the new tunnel right away. The Red Point is paying big. The Mayflower mine still rolls out big dividends. The tunnel at the Gray Eagle mine is now in about 130 feet. The rock is very favorable. Supt. J. B. Patterson has 28 men at work at the Eclipse, mine sinking shafts and in other ways preparing for a systematic working of the mine. Some very rich ore has been taken out. W. Stewart and W. McGillivray are laying up a big bank account. They are working a bar in the Middle Fork, just above Horse Shoe bar, and have taken out as high as 30 ounces in a day. The crushing and amalgamating mill invented by Mr. A. C. Bowen of Michigan Bluff, and exhibited by him at the fair, is being tested by some of the miners in the vicinity of Auburn. In the north gangway in the Mayflower mine, a drift has been run 300 feet in length, through a kind of yellow quartz gravel and sand. This new channel, or whatever it is, crosses the regular channel almost at right angles, and is about 14 feet deeper. In sinking through it a layer of cement was struck some six or eight feet thick, below which was the yellow gravel again. Good prospects have been taken from it. The gold is black. Miners are puzzled about the yellow deposit. Some think it is the Orono channel and others will give no opinion.

Mining and Scientific Press, V. 59, 9/21/1889, p. 233

F. Chappellet, who has managed the Dardanelles mine. Placer county, for nearly 13 years so successfully, thinks of taking a needed rest as soon as a man can be found to take his place.

Mining and Scientific Press, V. 59, 9/28/1889, p. 244

The Hidden Treasure Co. has passed through the cross channel encountered some time since and is getting the old-time yield of bullion. A drift of some 300 feet in length has been run in the north gangway of the Mayflower mine, through a deposit of yellow quartz, gravel and sand. This crosses the regular channel at right angles and sinks about 12 feet lower. Good prospects are being taken from it. It is thought to be the Orono channel. C. W. Reed from the Drummond mine, near Iowa Hill, says the mine is looking well and they are milling about 20 tons per day with their new Huntington roller, which is equal to a ten-stamp mill.

Mining and Scientific Press, V. 59, 9/28/1889, p. 251

A. Breece and family have located in San Francisco. The Breece & Wheeler mine, Placer county, is left in charge of W. Grinnell, as both of the owners are now residing in San Francisco.

Mining and Scientific Press, V. 59, 10/5/1889, p. 262

Pick AND Shovel.—Herald, Sept. 28: Report has it that the mill at the Drummond quartz mine is running and the ledge promises well. Work in the Mountain Gate mine at Damascus has been suspended. The main tunnel at the Red Point is being driven ahead. Superintendent Dodge is still running prospect drifts in the Baker Divide claim. Hoisting works will be put up at the Bellevue in a few weeks. At the Hogsback they are boring to find the distance to the channel. Wm. Grinnell has charge of the Breece and Wheeler mine. Some 18 men are employed. Harry Adams has been putting the Red Sea mine at Yankee Jim's in shape for work this summer. The White boys took out \$4000 from their mine last week. The ore is rich in sulphurets and specimens and is good milling ore also. But little mining is being done in either fork of the American. E. Kavanaugh is working a few men on Horse Shoe Bar, and Stewart and McGillivary are working at Little Pleasant Bar. They have not had a very successful season. Superintendent Chappellelte is taking a much-needed rest. The opening of the Mayflower mine was accomplished through his energy and skill, and but few are aware of the vast amount of labor performed by him in bringing the great undertaking to a successful issue. The tunnel at the Gray Eagle is 6x7 feet in size and is in a little over 130 feet. The rock is rather hard. A fine iron track has been laid. The compressors and other machinery for running the Burleigh drills are expected to arrive by the 5th of next month. T. G. Durning has been superseded in the superintendency. The boardinghouse at the Eclipse is virtually finished. Some very rich ore has been taken from the east shaft. Hoisting works will be put up as soon as the machinery arrives. A mill will also be put up this winter. The Mayflower mine shows no decrease in its output. Prospect drifts are being run toward the east rim. No new developments have been made in the Orono (?) channel. As an instance of what a comparatively small amount of gravel will yield can be mentioned the result of washing the boulders taken from this mine. After being run out and all the loose gravel knocked off, the boulders were dumped and water was turned on; \$1600 was cleaned up at one time and \$800 at another. About the same number of men are employed right along. Twenty stamps are kept going night and day.

Forest Hill.—Placer Argus, Sept. 28: Rumor is afloat that the Paragon mine at Bath has struck another rich streak. The Golden Fleece has struck rich gravel, and the owners are very proud of it. The Hogsback claim has shut down, owing to the tunnel being too high, and at present nothing

is being done; but it is to be hoped it will soon begin again. The Hidden Treasure mine is again putting on hands, some of which were dropped a month ago, owing to enlarging the gangways. Iowa Hill,—Cor. Placer Herald, Sept, 28: The Herman mill is running night and day crushing about 30 tons each 24 hours. It is reported here that the cement is very rich, running as high as \$100 per ton. The Morning Star is putting in the wood necessary for winter use, and report says that the new management takes hold on the 20th. The Drummond mill has been running steadily for two weeks; whether the result is satisfactory or not, no one knows. The Pioneer Co. is, I am informed, engaged in pushing ahead its tunnel and prospecting. The Red Point is driving the main tunnel to the east and hopes in a short time to be taking out pay grit. There is about the usual amount of annual work being done on the upper divide. The Washington Co, is prospecting its drift tunnel with all the speed possible.

Mining and Scientific Press, V. 59, 10/12/1889, p. 282

Rich Gravel.—Placer Republican, Oct. 3: The May Flower miners have found both the north and south veins of the Orono channel, which shows that it comes in from the east. The gravel is proving very rich, A trial crushing of 64 tons just made resulted in \$7.62 a ton.

Mining and Scientific Press, V. 59, 10/12/1889, p. 289

F. Chappellet has resigned as acting superintendent of the Mayflower mine, Placer county, and a gentleman named Beach of Spokane Falls has been selected for the position. Mr. Chappellet will, however, remain at the mine for some months, but he will devote himself chiefly to the development of the Eureka mine.

Mining and Scientific Press, V. 59, 11/9/1889, p. 358

Mayflower.—Placer Argus, Nov. 1: The shipments from the Mayflower for October aggregated \$13,722.28. W. E. Beach was chosen assistant superintendent and is now in charge of the mine. Mr. Chappellet has been quite seriously ill. The south gangway is now in 1057 feet. Gravel in the north breast very good. They are breasting out 72 feet; channel getting wider. They expect good returns when the bedrock begins to raise. Very little work has been done lately on the Orono. In the end of the south gangway the channel has pitched below the track, and they have started two drifts from the end of the gangway—one west and one south.

Rossville.—Cor. Placer Argus, Nov. 2: Capt. George Ross of No. 10 Folsom street, San Francisco, has the contract for running the Gray Eagle tunnel. The town-site is situated at the mouth of the Gray Eagle tunnel, on Owl creek, about five miles from Forest Hill. But it has resources, from the fact that it is situated in such a position that all the mining that can be done in this part of the Deep channel of the Forest Hill divide must necessarily be done through tunnels that have their outlets here. The Gray Eagle tunnel, which has its place of commencement here, is now in 250 feet, and with the new machinery which Capt. Ross is putting in place, it will not take over 10 months to complete his contract of 2500 feet. But long before that is done we expect to see a big strike made in the main channel. But this is not all for Roseville, for about 400 feet above the mouth of the Gray Eagle tunnel, on Owl creek, Anthony Clark, the veteran prospector, has located a site on his Hawkeye ground for a tunnel to tap his series of claims adjoining the Gray Eagle. He has already commenced operations in the shape of putting up and repairing buildings, clearing ground, etc.

Mining and Scientific Press, V. 59, 11/23/1889, p. 392

Drift Mining,—The Mayflower Drift and Gravel Mining Co., Forest Hill. Placer county, is making money. On Oct. 1, 1888, the tunnel was completed 5585 feet, and the first two upraises were made. The mill was completed Dec, 11th, and on that date the first oar of gravel was dumped into the mill chute. From Dec. 11, 1888, to Sept. 24, 1889 (the date of the last cleanup), the amount of gravel taken out and crushed was .33.787 tons, rich and poor, with a return of \$272, 616.56, or an average of \$8.06a ton. Since December 1888, they have worked out 1620 feet of channel, 860 feet north, and 760 feet south. These 1620 feet of channel have produced \$272,616 50, and that amount represents about the same average per running foot as in that part of the mine worked through the main prospecting shaft in 1885. The Mayflower Consolidated Company, including the Orono groups, has yet 25,820 linear feet of channel to work, without mentioning the gravel of the raises and the upper channel, known aa the Paragon lead, which has been found in the old mine; also the gravel of the Orono claims worked,

Mining and Scientific Press, V. 59, 11/23/1889, p. 394

The Hogsback Co. have started a new tunnel 437 feet lower down the hillside than the first. T. B. Harper is running a bedrock tunnel in his claim at Sailor Canyon. He is in over 400 feet. Hartley has started his mill at the Almond mine. Seventeen men are employed.

Mining and Scientific Press, V. 59, 11/30/1889, p. 412

Pick and Shovel.—Herald^ Nov. 27: C. F. Reed is opening the Drummond mine. The rock is reported to be very rich. The Ore mine above Michigan Bluff is paying about the same. The Baker Divide Co. is still running prospects and drifts above the tunnel.

Mining and Scientific Press, V. 59, 12/7/1889, p. 432

Red Point.—Placer Republican, Nov. 27; The last four months at the Red Point mine have been occupied on the new branch tunnel which is now completed. It is 1199 feet long. The first upraise was made 811 feet from the main tunnel, and breasting was begun on the 12th inst. The work is directed up stream from the point where operations were stopped when the branch tunnel was begun, and the gravel ought to be good, as it was very rich when breasting was temporarily suspended four months ago. It is expected to yield something over \$3 a carload at least. Preparations are being made to take out 200 carloads a day, which will employ about 70 miners.

Mining and Scientific Press, V. 59, 12/14/1889, p. 450

A Nugget.—Placer Republican^ Dec. 8: Russall Dunavent, brother of Mrs. J. M. Fulweiler, found a gold nugget near Mr. Fulweiler's barn on Thanksgiving morning. It is an unusually handsome specimen and weighs three ounces and four and one-half pennyweights. It is worth about \$19 an ounce. Mr. Dunavent found the nugget while he was preparing the ground to plant fruit trees, and it was only two or three inches beneath the surface. It will surmount a pile of oranges at the citrus fair.

Mining and Scientific Press, V. 59, 12/21/1889, p. 468

The Mountain Gate mine at Damascus, lately bonded by the Golden River Mining Co., is in good hands. The company have the means, and will either put in pumping machinery for drainage, or if justified, tap the channel with a new tunnel that will afford drainage for the entire mine. There is still enough of the old channel to justify an extended outlay, but the original

stock-owners were not in a condition to do this. The Red Point gravel mine, under the control of Chas. F. Hoffman, with A. J. Snyder as assistant, is the property of the Golden River M. Co., and may safely be said to be one of the best mines in the State. When the branch tunnel, just completed, was begun, the mine was paying splendid dividends. The branch tunnel was completed to work the mine at better advantage and furnish a larger surface for breasting. They are now ready to resume washing, and to work on a much larger and more profitable scale. At the Hogsback mine the new tunnel is being pushed forward with all possible rapidity, and early in the opening year we may expect that the channel will be reached, and the mine become bullion-bearing. For steady product and systematic working the Hidden Treasure mine at Sunny South is one of the best. With Harold T. Power at the head, we may expect a continuance of its admirable record.

Forest Hill,—The November product of the Mayflower mine was \$34,000, making a yield of \$330,000 from Dec. 11, 1888, to Dec. 10, 1889. (Mr. Chappellet is still acting as superintendent, though the company gave him a Mr. Beach as assistant. The mine is perhaps, all things considered, the best equipped in the State. The Breece & Wheeler mine at Bath was never paying better than at present—it has always paid. There have been intervals when this mine has been slacked up to open new ground, but when open the gravel has been very generally of a uniform richness, and the yield has been princely. The two partners are both residing in San Francisco, in affluent circumstances. W. H. Grinnell has charge of the mine at present. The Live Oak mine, near the Mayflower, is so situated that during the process of its development the gravel may be worked at the Mayflower mill. It will no doubt become remunerative in time, as it is in a rich district with plenty of channel gravel ahead. The Gray Eagle mine near Butcher ranch is being reached by a tunnel, placed low enough for drainage, and their gravel, which was reached by a shaft, has every indication of being excellent. The Dam claim above Hidden Treasure, the Hermit mine of A. C. Bowen & Son, Dr. Schnabel's mine at Last Chance, and other old-time and steady-paying mines, both there and at Deadwood, will be mentioned hereafter. Near Danetown is the famous Whisky Diggings copper mine. This mine must have a great future. Native copper ore and copper, in solution is produced. The Purdy Bros, expect to induce a syndicate of capitalists to take hold of this mine, and as the native ore is so abundant and of such a straight percentage of the pure article, it must prove a profitable investment. Enough is now known to prove that the Forest Hill divide, with the main Damascus channel and the lateral drifts, is by odds the richest in the Slate, and that for years to come the precious metals will continue with an increasing volume to pour in from our great drift mines.