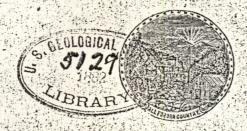
BIENNIAL REPORT

State Mineralogist

OF THE

STATE OF NEVADA,

FOR THE YEARS 1877 AND 1878.



SAN FRANCISCO: A. L. BANCROFT & COMPANY, PRINTERS, 721 MARKET STREET.

1875.

541

Amount. nds.

\$3,150,095 10 526,603 02 1,047,962 38 248,256 32 1,007,506 42 1,020,416 38 373,684 37 466 564 990 431 478 274 28

980,810 17 26,023,036 54 874,215 06

\$35,252,585 76

1876.

ND THIRD QUARTERS.

nds. \$1,555,651 24 285,696 38 1,039,710 00 143,779 60 598,278 57 764,350 93 714 451 000 273,579 71 810 468,934 44 29,711,718 07 450,486 58 196 607 \$35,292,185 52

and on the east side of the belt, from the Mary Ann, going south-west, granite; and from the same place going north-east, a slate belt of about four hundred feet in thickness. This belt of mineralized quartzite, found between slate and granite walls, has at some period been subjected to some force of nature, by which it has been broken up and crushed, disintegrated and fissured in all directions, so as to destroy, except at intervals, all traces of stratification, thereby fitting it for the reception of the mineral that has come up from the depths below in solution, and deposited in it. This formation differs from the boundary rock that follows the belt, the stratification of which has never been disturbed, except at the Star Hill, where a cross-fissure penetrates the east wall of the belt. I have particularized those two points, the Pacific and the Star mines, on account of their more extensive developments; but there are claims on the same belt that are superior to either of them, on their surface prospects, for quality and quantity. For want of mills that would reduce ores at reasonable rates, and the capital the country so badly needs, these mines must go undeveloped; and there are poor inducements for the prospectors to do much more than their annual assessments to keep their mining titles good, and which they propose to continue doing; for it will be observed that this speck on our planet's disc is no exception to other mining districts. It has its accomplished croakers, with no limit to their profound wisdom.

The above described mining ground is known as the east lode or mineral belt. Leaving this and traveling west over slate and quartzite for about three-fourths of a mile, the limestone is met with. This limestone belt is continuous, and has a uniform width of about five hundred feet; it runs parallel to the lower belt. On the east rim of this belt is where the Bonauza, Alta, Geneva, Exchequer and Victory mines are situated. The croppings of these mines are rich in gold and silver, besides carrying a large percentage of lead. On the west rim of the limestone belt, between the lime and the shale, is where the black metal ledge is situated. The claims most prominent on this ledge are the Pine Nut, Ticup, Chance, Baltic and Wonderer mines. This ledge, like its companion on the east, has a dip to the westward. The stratification on the east and west rim of this limestone belt is undisturbed; they constitute continuous, separate and contact veins. One is called the middle ledge, the other the west or black mineral ledge. It will be perceived by this statement that there is a lower mineral belt or east lode, and a middle and west ledge, all running parallel, north-easterly and south-westerly; that the east lode has no connection whatever with limestone.

WARD DISTRICT.

This is still the most important district in White Pine County, and Ward the most populous town. It is situated on the eastern slope of the Robinson range of mountains, about one hundred and ten miles from Eureka and one hundred and seventy-five miles from Wells, or the Central Pacific Railroad. The geological formations are quartite, limestone and granite. The facilities for mining and milling in this district are not surpassed in eastern Nevada. Wood and water are found here in abundance

for all purposes. Willow Creek, a short distance from the mines, affords an inexhaustible supply of water, while the precipitous mountain in which the mines are located is very favorable for their exploration by means of tunnels through which they are at present worked. The ores of this district, although of high grade, are very difficult of treatment. From this cause chiefly, and partly owing to the bad management of those in charge of the reduction works, the results obtained here have not been as favorable as the prospects and developments of the mines would appear to warrant.

MARTIN WHITE COMPANY,

Some of the most valuable mines in Ward District belong to this Company, viz: Paymaster, fifteen hundred feet; Defiance, fifteen hundred feet; Mountain Pride, fifteen hundred feet; Young America, fifteen hundred feet; Caroline, fifteen hundred feet; Mammoth, fifteen hundred feet; Ben Lomond, fifteen hundred feet; Ben Voirlick, fifteen hundred feet; Land Grampus, fifteen hundred feet; Home Ticket, fifteen hundred feet; Wisconsin, fifteen hundred feet; Ben Nevis, fifteen hundred feet; Maggie, fifteen hundred feet; Cyclops, fifteen hundred feet; Nestor, fifteen hundred feet; Ward and Henry, two hundred feet; Alameda, two hundred feet. The Paymaster mine has been opened up in a very systematic manner by means of tunnels, of which there are three, twelve hundred, thirteen hundred and seventeen hundred feet in length. The most extensive developments in the district have been made in this mine, and from it has been produced about all the bullion shipped from Ward. The yield so far has been about five hundred and fifty thousand dollars. No dividends have been declared, but instead assessments to the amount of five hundred thousand dollars have been collected. During the past summer another mill has been erected. It has twenty stamps, and commenced operations about the middle of November. This mill is very complete in its arrangements, and has in connection with it three of the improved White and Howell furnaces. This plan of roasting before amalgamation, it is thought, will obviate the difficulty heretofore experienced in working the ores from the Paymaster mine. The process of lixiviation introduced here by this company has been abandoned. The principal portion of the ores have heretofore been smelted, and two waterjacket furnaces were erected. A wire-cable tramway has been constructed from the lower tunnels to the ore-house at the new mill, which will greatly facilitate the transportation of ore from the mine. It is nine hundred feet in length. The latest information from Ward is, that the new mill is working splendidly. The ore is now being chlorinated by roasting with salt, which converts from ninety-three to ninety-seven per cent. of the silver to a chloride, and of this amount, eighty-three per cent. is saved by amalgamation. The ore averages about seventy dollars

During the past two years the Martin White Company has been engaged in expensive litigation to determine the right of possession to a portion of its ground. The decision of the Supreme Court of this State in the case of Katie Glesson v. The Martin White Company is of so much importance in settling certain questions which have arisen under the United States law regulating the location of mines, that it is here given in full.

This is an action to determine the right of possession of certain mining ground in the Ward District, White Pine County. The plaintiff deraigns title from the location of a claim called the Shark, and the defendant is the grantee of the location of the Paymaster. Both claims were located on the same ledge—the Paymaster in July, the Shark in September—and the principal question in the case is as to the validity of the Paymaster location.

The facts in regard to this location are very clearly and fully presented by the findings of the District Judge, which embrace the special verdict of a jury upon a number of issues submitted to its decision. No exception whatever is taken by either party to the findings of the jury, and the objections of the appellant to the additional findings of the Court relate rather to the conclusions of law involved than to the facts on which

they are based.

The question before us is therefore narrowed down to a construction of the legislation of Congress and the local rules of the Ward District governing the location of mining claims.

Before entering upon a discussion of the purely legal questions involved in the case, however, it will be best to give a connected statement

of the facts, which are as follows:

Mineral deposits were first discovered in what is now the Ward Mining District by Thomas F. Ward, in March, 1872. On the first of May the district was organized, a set of local rules adopted, and (it seems) Ward appointed Recorder. The rules so first adopted were, in their general features, like the rules everywhere prevalent on this coast before the enactment of the Law of Congress of May 10, 1872. Claims were to be located by posting a notice at the point of discovery; the notice to be recorded in fifteen days; this to hold the claim good for one hundred days, within which time a certain amount of work was to be done on the ground in order to hold the claim a year. Each locator was to have fifty feet of the surface on each side of his ledge or vein, but this not to carry the right to any mineral deposit therein distinct from the one located. These rules, so far as they were not inconsistent with the Act of Congress of May 10, 1872, continued in force until the first of October, following, when the miners adopted a new set of rules.

Such being the law of the district for the location and holding of claims, Ward, on the seventeenth of July, 1872, discovered the vein or ledge which is now in controversy, and placed upon the croppings at the

discovery point the following notice:

"Paymaster location notice.—We, the undersigned, do hereby locate and claim fifteen hundred (1500) feet on this ledge, lode, or deposit of mineral-bearing quartz or rock, with all its dips, spurs, angles and variations, together with all privileges prescribed by the mining laws of the United States and this district, and intend to hold and work the same according. We claim three hundred (300) feet easterly, and twelve hundred (1200) feet westerly from this monument, running along the course of the vein. This shall be known as the Paymaster.

"Ward Mining District, July 17, 1872, situated about fifteen hun-

dred feet north-west by north, from Mountain Pride lode."

To this notice were appended the names of the locators, and opposite the name of each were set the number of feet (undivided) to which he was to be entitled.

On the following day, July 18, the claim was recorded by Ward, as Mining Recorder of the district, by copying into a small memorandum book, which he carried in his pocket, and which at that time constituted the record book of the district. Subsequently, about the first of August, a larger book was obtained, and the records transcribed from the little book. In the meantime, however, the Paymaster notice, and the record of it, had been changed as follows: It seems that there was some sort of an agreement subsisting between Ward, John Henry, E. C. Hardy, and three others, that they should be equally interested in the locations made by Ward. But in the location of the Paymaster, Ward had omitted Hardy's name, and inserted that of Dave Pearson, who was not a member of the company. A few days after the location and recording of the claim, Henry called Ward's attention to the fact that Pearson's name was improperly on the notice, and Hardy's name improperly omitted. He also objected to the unequal distribution of the claim among the six locators. Ward thereupon changed the notice on the ground, and the record in the little book, by erasing the name of Pearson, and substituting the name of Hardy, and by changing the figures following the names, so as to give to each locator two hundred and fifty feet of the claim. These changes in the notice and in the little book were made before the transcription to the large book, which, since the first of August, 1872, has contained the records of the Ward District.

Subsequent developments have shown that the vein or ledge upon which this Paymaster claim was located has a course or strike from southeast to north-west. According to the magnetic meridian (variation 16½°)

it runs more nearly east and west.

In September, 1872, some work—it does not appear how much—had been done on the Paymaster location, but the course of the vein was not

clearly determined.

Such being the condition of that claim, on the ninth of September the locators of the Shark discovered the croppings of the same vein at a point about four hundred feet north-west of the location point of the Paymaster, and posted the following notice:

"Shark mine No. 1. Notice: We, the undersigned, do hereby locate and claim fifteen hundred (1,500) feet on this ledge, lode or deposit of mineral-hearing quartz and rock, with all its dips, spurs, angles and variations, together with all privileges prescribed by the mining laws of the United States and this district, and intend to hold and work the same according. We claim seven hundred and fifty feet on each side of the monument running along the course of the vein. This shall be known as the Shark mine No. 1.

"Ward Mining District, Nye County, Nevada, September 9, 1872.

"JOHN TAYLOR, 375 feet.
"THOMAS CONNOR, 375 feet.

"MATHEW GLEESON, 375 feet.

"Chas. Strutenberger, 375 feet."

On the following day this notice was recorded, the certificate to the record being as follows:

"Recorded September 10, 1872, at 10 o'clock A. M. Situated about 600 feet north-easterly from Young American mine, and about 300 feet north-westerly from Paymaster mine.

"THOS. F. WARD, Recorder.".

Some significance is attributed to the fact that Ward, the locator of the Paymaster, going upon the ground for the purpose of making this record, and necessarily observing the proximity of the Shark to the Paymaster, made no complaint at the time that the Shark locators were on his claim. It was not until October, and after some work had been done by the locators of the Shark, that notice was given that they were on the Paymuster vein. They, however, denied that it was the same vein. They claimed a cross vein, and declared that if it turned out that they were on the Paymaster they would give it up.

About this time-on October 10, 1872-John Henry, one of the Paymaster locators, took down their notice and put up another, the same in all respects as the one removed except that it claimed three hundred feet southerly and one thousand two hundred feet northerly from the monument, instead of three hundred feet easterly and one thousand two hundred feet westerly. On the same day he drove down two stakes, one at the north-west end of the Paymaster and the other at the south-east end. They were marked "North-westerly stake of Paymaster" and "Southeasterly stake of Paymaster." These stakes were on a line, or very nearly on a line, with the croppings of the vein as now developed, and within a few feet of the center line of the claim as now surveyed. At some time subsequent to the change of the notice on the mine, a corresponding change was made in the record of the claim by erasing the words easterly and westerly, and inserting the words southerly and northerly. The jury could not find who made this change in the record, but the District Judge was of the opinion, and so are we, that it was done by Ward and Henry, but without any fraudulent intent.

In the meantime, on the first of October, the laws of the district had been changed so as to conform more nearly to the Act of Congress of May 10, 1872, it being especially provided that locators should have three hundred feet of surface ground on each side of their vein-to include, of course, not only the vein originally located but all veins within the sur-

face lines. (R. S., Sec. 2322.)

It is found as a fact that sufficient work has been done under each of these locations to satisfy the requirements of the law of Congress and the rules of the district. The Paymaster location was never marked upon the ground in any other way than by the three stakes on the line of the croppings-one at each end and one at the point of discovery-until it was surveyed for the purpose of the patent application in October, 1875. The Shark location was never marked on the ground in any way, except by the monument at its initial point, until April, 1874, when Gleeson set stakes at the four corners of the surface claim. On these facts the District Judge concluded that the Paymaster location was valid, and, as a consequence, that the subsequent location of the Shark on the same ground was invalid. In accordance with this conclusion, the judgment of the District Court was for the defendant.

The plaintiff, appealing from the judgment and from the order denying her motion for a new trial, makes a number of assignments of error, which, however, are all involved in the three propositions following:

It is contended:

I. That the Paymaster claim was not located in conformity with the Act of Congress and the rules of the district, and consequently that it

2. That the Paymaster locators, if they ever had a good claim, abandoned it; and.

3. That they are estopped by their own acts from asserting any claim adverse to the Shark.

Keeping these propositions entirely distinct, and confining our attention for the present to the first, it is to be observed that there is no question that the locators of the Paymaster were the original discoverers of the ledge in controversy; that they made a bona fide attempt to locate it; that their claim was notorious; that they and their successors have continued to occupy and develop the property; that the Shark locators were aware of the priority of the Paymaster claim, and originally repudiated any intention of locating upon the same vein. These facts being conceded, the only position open to the appellant, and the only position her counsel have attempted to maintain, is, that a mining claim cannot be held except by compliance with certain requirements of the mining laws; that the Paymaster locators did not conform to those requirements, while the locators of the Shark did, and that, as a necessary consequence, the law gives her the property. Aside from the questions of abandonment and estoppel, she claims nothing except from a strict application of the law, regardless of any seeming hardship in depriving the defendant of a mine which its predecessors were the first to discover, claim and develop.

There can be no doubt as to the correctness of the position upon

which this claim is founded.

The United States have granted to their citizens, and to those who have declared their intention to become such, the right to explore and occupy the public mineral lands. (U. S. Revised Statutes, sec. 2319.) Those qualified locators who comply with the laws of the United States, and the local regulations not in conflict therewith, governing their possessory title, have the exclusive right of possession and enjoyment of their locations: (R. S. 2322.) He who complies with the law has the exclusive right. Therefore, if it is true that the Shark locators complied, and those of the Paymaster did not, the plaintiff must take the mine, no matter who is

entitled to the credit of the discovery.

What, then, constitutes compliance? The questions involved in this branch of the case have led to a very thorough and elaborate discussion of the mining laws of the United States, and particularly of the Act of Congress of May 10, 1872 (R. S., Sec. 2319 et seq.), under which these claims were located, and which embodies the most important features of the mining legislation. The same questions were, to some extent, involved in the case of the Golden Fleece Company v. The Cable Consolidated Company (12 Nev. 312), but were not very fully argued, and were discussed in the opinion only so far as seemed to be necessary for the disposition of that case. Some of the conclusions then announced have been questioned by counsel for respondent in this, but after a thorough re-examination of the whole subject, with all the light that has been thrown upon it by the most elaborate argument, oral and written, we remain entirely satisfied with that opinion. So far as it goes, it is a correct exposition of our present understanding of the law. But it does not cover the whole ground, and is perhaps not sufficiently explicit upon some of the points adverted to. The magnitude of this case, and the great importance of the subject to a mining community warrant a restatement of our views in a more complete, and we hope, a more convincing form.

One of the imperative requirements of the statute, an indispensable condition precedent of a valid location, is that it shall be "distinctly marked on the ground, so that its boundaries can be readily traced (R. S., Sec. 2324)." By reference to the foregoing statement of facts, it will be

seen that one of the locators of the Shark, in April, 1874, marked the boundaries of that location by setting stakes at the four corners of the claim. It is conceded that this war a sufficient marking of that location; but it is contended that the Paymaster had been sufficiently marked since October 10, 1872, by means of the two stakes at the ends of the claim on the line of the croppings and by the location monument at the point of discovery. Whether this marking was sufficient to answer the requirements of the statute is the principal question in the case, and as a step towards its solution, counsel have devoted a great portion of their argument to the preliminary question. What does a mining claim consist of; what are its essentials, what are its incidents? Is it the surface ground that is located, or is it the vein with the surface as an incident? It is conceived that a determination of this point will greatly facilitate the inquiry as to what sort of marking of boundaries is required. Counsel for appellant contend that the location is of the surface, and that stakes at the corners of the claim are essential. Counsel for respondent insist that the location is of the vein as the principal thing, with the surface as a mere incident, and that stakes to define the limits of the claim upon the vein are sufficient.

What we said in the Golden Fleece case we think expresses the truth in regard to this matter: "It is true that the vein is the principal thing, and that the surface is but an incident thereto; but it is also true that the mining law has provided no means of locating a vein except by defining a surface claim, including the croppings or point at which the vein is exposed, and the part of the vein located is determined by reference to the

lines of the surface claim." (12 Nev. 329.)

The vein is the principal thing in the sense that it is for the sake of the vein that the location is made; the surface is of no value without it; no location can be made until a vein has been discovered within its limits, and the surface must or at least ought to be located in conformity with the course of the vein. (R. S. 2320.) But the location is of a piece of

land including the vein.

"A mining claim located after the 10th day of May, 1872, whether located by one or more persons, may equal, but shall not exceed, fifteen hundred feet in length along the vein or lode; but no location of a mining claim shall be made until the discovery of the vein or lode within the limits of the claim located. No claim shall extend more than three hundred feet on each side of the middle of the vein at the surface, nor shall any claim be limited by any mining regulation to less than twenty-five feet on each side of the middle of the vein at the surface, except where adverse rights existing on the 10th day of May, 1872, renders such limitation necessary. The end lines of each claim shall be parallel to each other." (R. S. 2320.) This section alone shows that it is a surface parallelogram not less than fifty feet in width that must be located. But the purpose of the law is more clearly indicated by its granting clauses. What is it that the locators have the exclusive right to possess? Having complied with the laws they shall have the exclusive right of possession and enjoyment of all the surface included within the lines of their locations, and of all veins, lodes and ledges throughout their entire depth, the top or apex of which lies inside of such surface-lines extended downward vertically, although such veins, lodes or ledges may so far depart from a perpendicular in their course downward as to extend outside the vertical side-lines of such surface locations. (R. S. 2322.) This is the only part of the Act which grants the right to possess any lode, ledge or

The vein originally discovered, and for the sake of which the location is made, is lumped in with other mineral deposits that may happen to exist within the limits of the surface claim, and no part of it is granted except that part the top or apex of which lies inside of the surface lines extended downward vertically. This, it would seem, ought to be conclusive, but the language of section two thousand three hundred and twenty-five is; if possible, still more convincing: "Section 2325. A patent for any land claimed and located for valuable deposits, may be obtained in the following manner: Any person, association, or corporation authorized to locate a claim under this chapter, having claimed and located a piece of land for such purposes," may, by taking the prescribed steps, obtain the title upon payment of five dollars per acre for the land.

Thus it appears that a location on a vein must be made by taking up "a piece of land" to include it. No other means are provided, and it is only upon condition of complying with the law that the locator becomes entitled to anything. The discoverer of a vein may be allowed a reasonable time to trace its course, before being compelled to define his surface claim, and in the meantime may be protected in his claim to one thousand five hundred feet of the vein, but his location will never be complete until

his surface claim is defined.

That this is the only possible construction of the statute, seems so plain to our minds that we should have thought it superfluous to say a word in defense of our view if we were not aware that an opposite opinion

is very largely prevalent.

We think this is due to the fact that the custom of locating a vein claim by means of a notice posted on the croppings, and of holding it by record of the notice and work done at the discovery point, without any definition of boundaries, has prevailed so long and so universally on the Pacific Coast that the system has come to be regarded by a great many as something essentially inherent in the nature of things. The right, under such locations, to follow the vein in whatever direction it might run, to the extent claimed in the location notice, taking the adjacent surface necessary for the convenient working of the mine as a mere incident thereto, has been so long recognized and enjoyed as to have almost assumed the character of one of the natural and inalienable rights of man. That the Government, in disposing of its mineral lands, has adopted a radically different system, under which a vein can only be located by means of a surface claim, and held only to the extent that it is included within the surface lines, is a thing too incredible to be believed by those to whom the old customs seemed rooted in the very foundations of

But disagreeable as the awakening may be, it is time we were opening our eyes to the fact that a new system has been introduced. The Act of Congress of May 10, 1872, has effected the changes above indicated. Its language is plain, unambiguous; and whatever may be our opinion of the impolicy of the changes effected by it, we are bound to submit and conform ourselves to its requirements. If the terms of the statute left any room for construction, the argumentum ab inconvenienti might be entitled to great weight, but it cannot be invoked where the language of the law

is so plain as it is in this instance.

Besides, we do not share in the opinion that the new system is so utterly bad. Nobody can pretend that it is a great improvement on the system which it displaced. We are willing to admit that cases may arise to which it will be difficult to apply the law, but this only proves that such cases escaped the foresight of Congress, or that, although they fore-

saw the possibility of such cases occurring, they considered that possibility so remote as not to afford a reason for departing from the simplicity of the plan they chose to adopt. So far, the wisdom of the Congressional plan has been sufficiently vindicated by experience. It is true that voins and ledges are not found to be perfectly regular in their formation—they have not a perfectly straight course even in depth—and near the surface they present still greater irregularities of strike and dip; but still they approximate the ideal vein that Congress seems to have had in view sufficiently nearly to admit an easy application of the law in all the cases of conflicting claims that have fallen under our observation.

As to the difficulty of establishing surface lines immediately upon the discovery of a vein, that also is conceded. It is a well known fact that the eroppings of a vein are always very imperfect and often a very deceptive guide to its course; and it will often be difficult and sometimes impossible to locate a surface claim in conformity with the course of the

vein, even after years spent in its development.

But all this affords no argument against the system. Unless the miners voluntarily restrict themselves by local regulations, a claim may always be fifteen hundred feet long by six hundred feet wide. Let the discoverer of a vein be ever so unfortunate in locating his claim, he cannot possibly get less than six hundred feet of the vein, while under the old law the most he could get was four hundred feet. How then can it be said that he is subjected to any hardships? So far from restricting his rights, the new law has very greatly enlarged them, and at the same time has made them vastly more certain and secure.

Furthermore, we do not understand that the law requires the surface claim to be defined immediately upon the discovery of the vein. We think that under any circumstances the discoverer, if he went to work diligently to trace out its course, would be allowed a reasonable time for that purpose, and in the meantime would be protected in his right to one thousand five hundred feet of the vein. In the absence of any State or Territorial or local regulation prescribing the time to be allowed for tracing, the question as to what should be deemed a reasonable time would have to be determined in view of the facts and circumstances of each case. We said, however, in the Golden Fleece case (12 Nev. 329), and we still think that this is a matter for local regulation under the power delegated to the miners by section 2,324 of the Revised Statutes, to make rules not in conflict with the laws. Any reasonable rule for the provisional holding of a claim, by means of the posting and recording of notice, during the time necessary for tracing would, we feel confident, be favorably viewed by the courts, especially if it required the locator to use diligence in the work of tracing during the time allowed for that purpose. This, however, is a question which we are not called upon to decide in this case. We have been led into this line of argument in response to what has been said by counsel for respondent in regard to the great hardship imposed upon the discoverer of a vein by compelling him to define his surface claim before he could possibly ascertain the course of the vein. If we are right in our opinion that he would be allowed a reasonable time for tracing, the supposed hardship does not exist. If we are wrong, and if the discoverer must set his stakes without stopping to trace the vein, even then, as we have shown, he is better off since than he was before the statute. His surface lines will necessarily include at least six hundred feet of the vein, and may include upwards of one thousand six hundred. In the latter case he may be compelled to readjust his lines so as to take only one thousand five hundred feet,

but in any case he can secure six hundred feet. Before the statute he could claim no more than four hundred feet of the vein, and of that he was not secure for a day. The moment he developed rich ore he was beset by trespassers, and in order to enjoin them from stealing his property, was obliged to trace the vein between them and the location point. He was harassed with litigation, and his means often entirely consumed in the prosecution of work not necessary for the development of his mine, but essential for the vindication of his title. Under the new law this source of vexation and expense is entirely swept away. Within his surface lines the discoverer of a vein is secure, and he might well consent to sacrifice something in the extent of his claim for the sake of that security.

So far, however, from having to make such a sacrifice, his claim, at the very worst, is more ample than it ever was before. Sound policy, therefore, concurs with the language of the statute in sustaining our conclusion that a vein can only be located by means of a surface claim. How soon after the discovery of the vein "the location must be distinctly marked on the ground so that its boundaries can be readily traced" (R. S. 2324), we do not decide; but until it is so marked we are clear that the location is not complete, and the law has not been complied with.

So far we agree entirely with the views of counsel for appellant; but, although we are satisfied that a location must be of a surface claim, and that the boundaries and extent of the claim must be plainly defined by stakes or marks on the ground, it does not appear to be a necessary consequence that the least admissible marking is by posts or monuments at all the cor-

ners of the claim.

We are aware that the Commissioner of the Land-office has recommended the planting of posts at the corners, and the erection of a signboard with the name of the claim, the names of the locators, etc., at the location point; and undoubtedly a compliance with these recommendations would be sufficient to satisfy the law in this particular. But at the same time we think it may be satisfied by something less. There is, after all, something in the fact that it is a mining claim, and not an agricultural claim that is being located; and some account should be taken of the customs, habits and circumstances of a mining community in determining what is a sufficient marking of a mining claim. The vein is always the principal object that the locator has in view; it is generally, after location and work at the location point, a conspicuous feature of the locality; it is the first thing that attracts the attention of mining men; the surface claim by which it is to be located ought to conform to its course; the end lines must be parallel; and, as they ought to conform to the dip of the ledge as nearly as practicable, they ought to be at right angles to the side lines, so that if the center-line of the claim is once established, the boundaries are thereby fixed, and may be readily traced.

The object of the law in requiring the location to be marked on the ground is to fix the claim—to prevent floating or swinging—so that those who in good faith are looking for unoccupied ground in the vicinity of previous locations may be enabled to ascertain exactly what has been appropriated in order to make their locations upon the residue. We concede that the provisions of the law designed for the attainment of this object are most important and beneficent, and that they ought not to be frittered away by construction. But it must be remembered that the law does not in express terms require the boundaries to be marked. It requires the location to be so marked that its boundaries can be readily traced. Stakes at the corners do not mark the boundaries; they are only

a means by which the boundaries may be traced. Why not, then, allow the same efficacy to the marking of a center line in a district where the extent of a claim on each side of the center line is established by the local rules? It would be safer and therefore better to comply with the recommendations of the Land-office and erect stakes at the corners of the claim, but if the grand object of the law is attained by the marking of a center line we can see no reason why it should not be allowed to be sufficient.

In this case the locators of the Paymaster marked the center line of their claim on the tenth of October, 1872. No miner, no man of common intelligence, acquainted with the customs of the country, could have gone on the ground and seen the monument, notice and work at the discovery point and the two stakes-one three hundred feet south-east of the location monument, marked "South-easterly stake of Paymaster," the other twelve hundred feet north-west of the location monument and marked "North-westerly stake of Paymaster"-in a line with the croppings and the discovery point, without seeing at a glance that they marked the center line of the claim. By the rules of the district and the laws of the land he would have been informed that the boundaries of the claim were formed by lines parallel to the center line and three hundred feet distant therefrom and by end lines at right angles thereto. With this knowledge he could have traced the boundaries and, if such was his wish, ascertained exactly where he could locate with safety. We conclude, therefore, that the Paymaster location was sufficiently marked on October 10, 1872. At that time the Shark location had not been marked in any way, and whether the law allows a locator a reasonable time or not to mark his boundaries-protecting his full claim in the meanwhile-the same result equally follows. If the Paymaster was not marked within a reasonable time after discovery, then certainly the Shark was not, for the first was marked within three months and the latter not until more than eighteen mouths after discovery; so that the Shark claim was lost by the failure to mark its location within a reasonable time, and such time is allowed, then the Shark was thereby excluded. If no time for tracing is allowed, and the first to mark his boundaries is first in right, then the Paymaster location holds the claim, because it was first defined by monuments on the

Unless the Paymaster location failed in some other particular to comply with the law, there is no hypothesis upon which anything can be

claimed under the Shark location.

But it is contended that the Paymaster location was rendered invalid by non-compliance with the rules of the district and the law of Congress

respecting the notice and record of claims.

There is no doubt that in order to secure the right of possession to a mining claim there must be a compliance not only with the laws of the United States, but also with such local regulations of the mining district as are not in conflict therewith (R. S. 2324), and if the miners of the Ward District have made the posting and recording of location notices essential, the courts are not at liberty to dispense with them.

The original laws of the district were adopted May 1, 1872, ten days prior to the passage of the Act of Congress, which, as we have seen, introduced an entirely new system of making locations—a system in which the preliminary posting and recording of notices is entirely out of place, except as a means of protecting a claim during the time necessary for tracing the ledge and marking the boundaries of the location. When the location is thus marked, all that the notice and record were intended

or expected to accomplish is effected in a manner far more satisfactory and complete. In place of a very imperfect, and often misleading, notice of what was claimed, there is a plain and unambiguous notice to all the world of the exact position and extent of the location. It might well have been held, therefore, with respect to the rules adopted May 1, 1872, that their requirements as to the posting and recording of notices were superseded by the Act of Congress of May 10, 1872; that they were merged in the higher and more efficacious rule of the statute, or, at least, that if they continued of any force whatever, it was only as a means of protecting a vein discovery during the time reasonably necessary for tracing its course and marking the boundaries of the location, and consesequently that if the discoverer chose to mark his location in the beginning, or actually did so at any time before an adverse claim was made, his failure to post and record a notice would count for nothing.

But the rules of the district were revised on the first of October, after the passage of the Act of Congress, and the provisions with respect to the notice and record of claims were readopted without any additional provision for bringing them into sensible relation to the law. They do not purport to supply a means of holding a claim pending the marking of the location on the ground, but stand as substantive and independent requirements, a compliance with which is essential to the validity of a claim. We are not willing, under the circumstances, to go to the extent of holding that their observance can be dispensed with, even where a location has been plainly marked before the making of an adverse claim. We will assume that it was necessary for the locators of the Paymaster not only to have marked their location before the Shark locators complied with the law, but also to have posted and recorded a notice of the

claim. Did they do so?

There can be no question that the original Paymaster notice was all that the law requires. The only objection to it is that it did not contain in itself a description of the claim by reference to some natural object or permanent monument. It was not necessary that it should. It is only the record of the claim that is required to contain such a description; and there are excellent reasons for making a distinction between the notice and record in this particular. A notice is generally, and for safety ought always to be, posted immediately upon the discovery of the vein, before there is any time to survey the ground, and ascertain the bearings and distances of natural objects or permanent monuments in the neighborhood; and besides, the claim referred to by the notice is always sufficiently identified by the fact that it is posted on or in immediate proximity to the croppings. A notice claiming a location on "this vein" has only one meaning. But the notice is exposed to the danger of removal by adverse claimants, or destruction by the elements, and for permanent evidence of the location its record is provided for. The record, if it consisted of a mere copy of the notice, would not identify the claim, and there would be an opportunity as well as a temptation to the locators, upon the discovery of a more valuable mine in the vicinity, to prove, by perjured witnesses that their notice was posted on that mine. The floating of claims was by no means an infrequent occurrence prior to the Act of 1872, and if such attempts were seldom completely successful, they were always vexatious, and often the means of levying a heavy blackmail. It was on this account that the record (not the notice), was required to contain "such a description of the claim or claims located by reference to some natural object or permanent monument as will identify the claim." (R. S., Sec. 2324). It is a sufficient compliance with this provision of the law if the description of the bous of the claim is appended to the notice when it is recorded. But by reference to the foregoing statement of facts it will be seen that not only did the record of the Paymaster location contain the necessary description, it was also contained in the body of the notice as posted on the ground: "Situated about fifteen hundred feet north-west by north of the 'Mountain Pride lode," is the description in the notice; and as no objection to it was made upon the ground that the "Mountain Pride lode" was not a well known natural object, at that distance, and in that direction from the Paymaster location monument, we presume it was, in fact, a good description. The record also contained the names of the locators and the date of the location, and thus fulfilled every requirement of the Act of Congress. (R. S., Sec. 2324.) But it was changed by Ward and Henry, and it is contended that after those changes it was no longer a good record.

The argument in support of this point is about as follows: Pearson, whose name was in the original notice, as first recorded in the little book, was one of the locators of the claim; he had a vested right, and could not be deprived of his interest by the erasure of his name from the notice and record, and consequently after his name was scratched out the record no longer contained the names of the locators, and was void. We do not think it is by any means clear that Pearson ever acquired any interest in the claim. It does not appear that he ever assented to the use of his name as a locator by Ward, who actually made the discovery and posted and recorded the notice, and it does appear that there was some sort of arrangement by which Ward was to divide his discoveries equally among those whose names were afterwards signed to the notice. If Pearson had no right to a share in the discovery, and if Ward merely inserted his name by mistake or under some misapprehension, and erased it before the claim had been perfected by work or the marking of its boundaries, it is difficult to see upon what ground he could claim to have ever had any vested right as a locator. But whether he had or not is a question between him and the other locators of the Paymaster. As to outsiders, the notice and record were sufficient. They contained the names of those who claimed to be the locators, and served every purpose of the law-

that is, they identified the claimants and the claim. The subsequent alteration of the notice by changing the words westerly and easterly to northerly and southerly had no effect upon the rights of the parties. The only purpose of those words was to show in which direction from the discovery point the claim extended one thousand two hundred feet, and in which direction its extent was only three hundred feet. Either set of words served the purpose equally well. No doubt when the vein was first discovered, its course seemed to be east and west; after a certain amount of development, it seemed to run north and south; and the notice was changed for the perfectly innocent and even landable purpose of giving to all whom it might concern a better description of the claim. The corresponding alteration in the record was made with the same motive—at least the court finds that it was done without any fraudulent intent; and certainly it was wholly immaterial. There was no swinging of the location effected by this change in the notice and record. The claim was never fixed until the stakes were set; and so far as the notice was concerned, it claimed one thousand five hundred feet of the vein, no matter where it might run. If it was good for anything, it was good for what it claimed, pending the marking of the location. The changes and erasures in the record were certainly irregular; and if they had been material, or if they had not been satisfactorily explained, might have afforded good grounds for excluding it from evidence.

But they were satisfactorily explained. They were not designed to defraud any one, and had no such effect. We think that the comments of the District Judge on this matter are very just. Mining recorders are a class of officials that must be treated with a great deal of forbearance and indulgence. They are often entirely ignorant of legal forms, and have no appreciation of the horror with which an ordinary lawyer views the erasure or alteration of records and other documents. Where no fraud or deception is intended, their blunders must not be construed into crimes.

This disposes of the first proposition of appellant. The second and third are entirely without merit, and as they relate to well settled doctrines of the law, they will be very briefly adverted to. There is not the slightest evidence of an intention on the part of the Paymaster location to abandon their claim. The act of Henry in changing the language of the notice on the tenth of October, 1872, proves only that he had abandoned the opinion that the course of the ledge was cast and west. So far from proving an intention to abandon a foot of his claim on the ledge, it proves exactly the reverse.

Nor do the facts present a single element of estoppel.

Each party had exactly the same means of information. When the Shark location was made, it was as much the business of its locators to know whether it was on the Paymaster vein, as it was of Ward, the Recorder. The truth probably is, that no one at that time thought the two claims would conflict. It is idle, therefore, to say that any culpable silence on the part of Ward, caused the expenditure of labor and money on the Shark. If the locators of that claim were deceived, it was their

fault and they must suffer the consequences.

As to the change in the Paymaster notice from east and west to north and south, that was, as we have seen, wholly immaterial. The simultaneous property of the consequences.

and south, that was, as we have seen, wholly immaterial. The simultaneous setting of the stakes entirely superseded the calls of the notice, and was the first thing that ever fixed the boundaries of the claim. If after that the Shark locators continued at work, they did so with their eyes wide open, as they did everything else from the beginning to the end of their attempts to locate the ground. From the outset they had the same opportunities to know the truth that the other party had. If they have any better claim to the property than the defendant, it is not because they were deceived or misled, but only because they can show a technical compliance with the law, while their adversaries cannot. It is upon this ground alone that their case has any semblance of strength, and upon this ground we think it clearly fails. The judgment and order appealed from ought to be affirmed, and it is so ordered.

BEATTY, J.

I concur: LEONARD, J.

Since the foregoing opinion was written two cases (Gelsich v. Moriarty et al., and Holland et al. v. Mount Auburn G. Q. Mining Company) have been decided by the Supreme Court of California, in both of which it is assumed, as a point beyond question, that the marking of a mining location on the ground so that its boundaries can be readily traced is absolutely essential to the validity of the claim. This is in perfect accordance with our own views, as above expressed. But in the latter of these cases it seems also to be held that the marking of the center line of the claim is not sufficient to satisfy the requirements of the law. The opinion of the Court is very brief, and no reasons are assigned for the

conclusions reached. We have, however, been led by that decision to thoroughly reconsider our own opinion on this point, and the arguments of counsel mo and con. The result is that we are satisfied of the correctness of our first conclusion. A mining claim consists of a certain breadth of surface, to be laid off on each side of the line of the croppings, with the mineral deposits included therein. The center line, as a matter of course, is to be a straight line conforming to the general strike of the rein, as nearly as that can be ascertained. The side lines are to be parallel to the center line, and if, as we assume to be the proper construction of the law, the end lines must be parallel and conform to the dip of the vein, which is at right angles to its strike, it follows, with the conclusiveness of a mathematical demonstration that when the center line is once definitely fixed the boundary lines can be traced (that is, followed out) with absolute certainty. It may be that they could not be traced as easily and readily as if stakes were set at the corners, but the difference would be very slight and of no practical consequence. In any case, we think that the law should receive as liberal and beneficial a construction as is consistent with the object which Congress undoubtedly had in view in passing it. That object, we are satisfied, was not to save intending locators a slight amount of labor in tracing older claims, but it was to make the boundaries of such older claims certain and immovable; to put an end forever to the shifting and floating of claims; to do away with an existing and intolerable evil. The whole object of the law is accomplished whenever, from the monuments on the ground, the boundaries of a mining claim can be traced with absolute certainty and without any practical difficulty, and for that purpose a definitely fixed center line is sufficient.

BEATTY, J.

I concur: LEONARD, J.

BY HAWLEY, C. J., CONCURRING.

I concur in the conclusions reached by the Court, that the judgment of the District Court ought to be affirmed; but I am unwilling to give an inqualified approval of the construction given to the mining laws of the United States.

If I entertained the opinion, as expressed by the Court, that "it is a surface parallelogram not less than fifty feet in width that must be located;" that the location on a vein "must be made by taking up a piece of land to include it;" that a vein "can only be located by means of a surface claim, and held only to the extent that it is included in the surface lines," and if—upon these points—I agreed "entirely with the views of counsel for appellant," I should be inclined to agree with their conclusions that it is the surface location that "must be distinctly marked on the ground so that its boundaries can be distinctly traced."

But I do not believe that it was the intention of Congress, by the passage of the several Acts referred to in the opinion of the Court, to produce an entire revolution in the system of locating mining claims. Some very important changes have been made and the rights of the locators have been enlarged and made more specific; but, in my judgment, it is—as it was under the old system—the vein of quartz, the lode, that is the principal thing constituting the location. The surface ground is but

an incident thereto. The location of such a mining claim is distinctly marked on the ground so that its boundaries can be readily traced, by the placing of stakes along the lode and at the ends of the location, or by such other monuments or marks as will clearly designate the number of feet in length and the particular lode located. In my judgment, the location need not, necessarily, be the taking up of "a piece of land" in the form of a parallelogram. When the vein or lode is sufficiently identified and marked, as above stated, the laws of the local district fix the number of feet in width—of the surface ground—to which the locator is entitled. It being, of course, understood that, "no claim shall extend more than three hundred feet on each side of the middle of the vein at the surface, nor shall any claim be limited by any mining regulation to less than twenty-five feet on each side of the middle of the vein at the surface."

I differ with the court upon another point discussed in the opinion. I think that after the vein or lode is properly located the locator thereof has the right to fifteen hundred feet along the course of the lode, "in whatever direction it runs, irrespective of the vertical side lines of the surface boundaries" (dissenting opinion, Golden Fleece v. Cable Consolidated, 12 Nev., 331), and that he would only be entitled to fifteen hundred feet in length, although the vein took such a course as to embrace more than fifteen hundred feet within the end lines of his surface location.

HAWLEY, C. J.

STOREY

		First (QUARTER.	S	SECOND QUARTER.			
Name of Mine or Owner.	Tons.	Pounds.	Gross Value.	Tons.	Pounds.	Gross Value.		
Belcher California Chollar Potosi Con. Virginia Justice Ophie Trojan Andes	45,208 12,621 18,717 35,222 1,460 607	200 500 1,500 1,650	721,671 16 27,216 56 5,900 00	49,967 9,104 39,777 40,775 2,660	1,500 1,300	4,627,456 25 145,489 49 3,775,362 42 743,062 66 78,473 93		
Empire Con. Imperial								
Tailings	7,017		92,465 87	21,678		225,379 62		
Totals	128178	1,850	\$7,641,970 70	169799	900	\$ 9,739,976 97		

WHITE PINE

		First (QUARTER.	SECONE QUARTER.		
Name of Mine or Owner.	Tons.	Pounds.	Gross Value.	Tons.	Pounds.	Gross Value.
Eberhardt & Ward Beecher Pacitic Paymaster Queen Silver Peak Ten Cup, Battery Exchequer Copper Silver Glance Eberhardt & Aurora Hunter Con Kate Alice Newark Prince Silver Wreath and Lookout Stafford Tallahasse	220 5 4 62	794 110 1,440	3,796 76 8,000 00 1,243 71 994 48 6,938 30	22 124	704	\$2,685 71 3,525 32
Totals		347	\$54,089 01	-		

COUNTY-1877.

THIRD QUARTER.			FOURTH QUARTER.				Totals.			
Tons.	Pounds.	Gross Value.	Tons.	Pounds.	Gross Value	2.	Tons.	Pounds.	Gross Value.	
58,186 5,282 40,650 34,285 1,467	1,200	598,188 89 31,084 01 14,040 00 55,274 24	00,321 3,600 54,021 17,085 576 2,395 2,997 4,184 282	1,250 1,100 1,000 1,500 1,700	56,926 4,262,518 276,133 21,643 27,942 41,958 76,120 7,452	44 63 58 46 26 00 24 66	213682 30,007 153166 127368 6,164 3,002 936 3,968 2,997 4,184 282	900 900 500 1,650	511,639 33 13,725,750 90 2,339,056 55 158,417 96 33,842 26 14,040 00 55,274 24 41,958 00 76,120 24 7,452 66	
168591						_			\$37,062,252 38	

COUNTY-1877.

	THIRD QUARTER. FOURTH QUARTER. TOTALS.						ALS.	
Tons.	Pounds.	Gross Value.	Tons.	Pounds.	Gross Value.	Tons.	Pounds.	Gross Value.
793 693 170 10 392 185 6 8	540 974 1,407 1,830	71,356 90 13,292 50 406 67 13,109 28 1,665 00 921 95 1,120 44 24,826 80	1,554 	500 887 1,624 1,500 500	\$114,435 43 14,445 87 1,120 00 7,869 66 62,795 09 1,472 03	855 1,242 2,467 5 4 647 22 156 10 620 1,231 185 6 38 81 706 13	704 540 1,861 1,624 1,407 1,330 500	34,676 67 2,685 71 4,645 33 406 67 20,978 94 62,795 00 1,665 00 921 95 2,592 47 1,143 58
2,979	1,412			1,011	\$203,281 66	8,214	1,474	\$408,491 59

STOREY

		FIRST QUARTER.				
Name of Mine or Owner.	Tons.	Pounds.	Gross Value.			
Con. Virginia California Chollar-Potosi Con. Imperial Crown Point Justice Ophir Trojan Andes	53,330 2,824 3,483 3,644 6,300 88 4,411	950	5,316,655 15 48,767 18 43,965 33 57,380 52 122,342 74 10,645 36 27,306 07			
Tailings . Failings , Express Mill Failings , Mariposa . Failings , Omega . Totals	18,991		184,933 53			
Totals	152,792		\$10,543,841 32			

WHITE PINE

		FIRST QUARTER.					
Name of Mine or Owner.	Tons.	Pounds.	Gross Value.				
Crescent. Oscola Paymaster Queen Star Teacup Eagle and Crescent Iwin Eberhardt and Aurora Lookout Stafford. Totals	1,213 12 1,463 70						

COUNTY-1878.

SECOND QUARTER,			r	THIRD (QUARTER.	TOTALS.			
Tons.	Pounds.	Gross Value.	Tons.	Pounds.	Gross Value.	Tons.	Pounds.	Gross Valu	ue.
5,176 353 943	535 450 1,000	3,029,893 22 37,767 50 100,128 46 38,053 30 15,665 73	3,689 544 720	1,723	895,628 74 51,691 60 8,738 46 12,240 00	108859 2,824 10,453 3,644 11,482 441 5,899 720	950 450 200	8,242,177 48,767 133,424 57,380 228,471 48,698 51,710 12,240	11 18 43 43 55 20 60 20 00
		183,236 73	4,112		9,968 45 56,772 11	1,105 4,112		9,968	45
103429	985	\$5,554,201 82	64,254	1,223	\$1,891,593143	20,476	758	\$17,989,636	28

COUNTY-1878.

SECOND QUARTER.			1	Inird (QUARTER.	TOTALS.		
Tons.	Pounds.	Gross Value.	Tons.	Pounds.	Gross Value.	Tons.	Pounds.	Gross Value.
992 23 1,108 479 3	1,608 1,000 1,336 312	\$62,409 8 4,618 1 77,872 1 4,152 6 473 4	2 1,203 1 313 7 2,418	1,500 1,000 292	3,024 72 41,470 78 5,277 13	18 6 2,205 35 3,775 70 793 3 2,418 55 11	1,000 1,541 1,651 500	\$ 631 50 266 25 133,693 77 7,853 77 242,005 38 5,940 00 7,177 33 473 47 41,470 78 5,277 13 1,661 79
2,607	256	\$149,526 19	4,002	341	\$134,457 05	9,392	1,181	\$446,453 71