

SATURDAY, JANUARY 6, 1882. METEOROLOGICAL OBSERVATIONS—Taken at Back Station at the Same Time. SACRAMENTO, JANUARY 6, 1882—8:02 P. M.

Table with columns: Places of observation, Barometer, Thermometer, Wind, Clouds, State of the weather. Rows include Olympia, Portland, Boston, New York, San Francisco, San Diego, Los Angeles, Sacramento, San Francisco, San Diego, Los Angeles.

THE WEEKLY UNION.

THE WEEKLY UNION for 1882 will be found to be decidedly the best and most desirable paper issued among all the weeklies of the West. It is sent out in two sheets each of eight pages—once on Wednesdays and once on Saturdays. It therefore goes to its readers often than the old style of weekly journal, and its news is fresher, and very nearly on a level, in point of time, for country readers, with the usual market reports, complete and reliable advice from all points, domestic news, editorially treated in all current topics of public importance, addresses itself in a special department to agriculturists, gives attention to the household, fashion, art, science, music, chess, etc., and to general literary matter, tales, sketches, poetry, reviews of new books, etc. The WEEKLY UNION is mailed to any address, one year, for \$2.00.

THIS MORNING'S NEWS.

In New York Government bonds are quoted at 117 1/2 for 4 1/2; 114 1/2 for 4 1/4; 107 1/2 for 3 1/2; 101 1/2 for 3; 95 1/2 for 2 1/2; 89 1/2 for 2; 83 1/2 for 1 1/2; 77 1/2 for 1; 71 1/2 for 1/2. 6 per cent. United States bonds, extended, 105 1/2; 4 1/2, 103; 4 1/4, 101 1/2.

In San Francisco gold dollars are quoted at 1 discount to par; Mexican dollars 11 1/2; silver dollars 10 1/2. Mining stocks were lower all round in San Francisco yesterday morning. The decline from Thursday morning varied from 5 to 15 1/2 per share.

Prices for some descriptions yesterday were the lowest in a long time. Consolidated Virginia solid staves, the lowest in its history.

After a short session yesterday, the United States Senate adjourned to Monday.

Fire at East St. Louis; also at Williamsburg, N. Y., and at Philadelphia.

John R. Payne was hanged at Marshall, Mo., yesterday, for murder.

The execution of Terrance Archibald and Sterling Ben, colored murderers, took place yesterday at Franklin, La.

At El Paso, Texas, Los Angeles county, Wednesday, Nicholas Couch shot S. Crabtree through the heart, for striking the former's wife.

Marshall Earp, recently shot by cowboys at Tombstone, A. T., is recovering.

F. D. Bennett was struck on the head by the falling limb of a tree in Yamhill county, Oregon, and instantly killed.

The Emperor of Russia has pardoned the Polish Bishops exiled in 1844.

The Prussian Diet has been summoned to meet on the 15th instant.

The report of the burning of Warsaw, Russia, is not confirmed.

Six inches of snow fell at Eureka, Nev., yesterday, and also fell heavily at Reno.

In an affray at Westport, La., three men were killed and several others wounded.

Joseph Abbott was hanged yesterday at Elmira, N. Y., for the murder of a fellow convict.

Martin Kankowsky was executed in the Hudson County Jail yesterday for the murder of Reno Hill, a young woman.

Three of the inmates of the Macon County (Ill.) Poor-house, recently burned, returned to the flames.

Two murderers—Joseph Michael Kotovsky and Charles Ellis—were hanged in St. Louis yesterday.

Rev. James Cameron, a Presbyterian clergyman, was poisoned by his wife at Oakland Thursday night, by mistake.

At Toledo, W. T., yesterday, John Westfall was shot by Jack Vincent.

The body of S. Maxwell, an old-time California printer, was found in the bay at Seattle, W. T., Thursday.

In the recent massacre by Apaches in Sonora, Mexico, fifteen men, six women and four children were slain.

Dr. H. A. Knick, a leading physician of Grand Island, Neb., was found dead at that place Thursday night under mysterious circumstances.

The Managers of the Garfield Memorial Hospital are greatly encouraged at the prospects of the enterprise.

Further reports are given this morning in regard to the condition of the State.

The reading matter furnished upon the inside pages of to-day's Record-Union will be found exceptionally interesting. The present page contains the regular weekly department of "Agriculture," from Mexico, the department of "The Quiet Hour," items of coast news, poetry, miscellany, etc. Upon the third page will be found another installment of James Earl's story of "The Way of the World," a paper upon "Agriculture and Agricultural Chemistry," miscellany and poetry. The department of "The Household" is given upon the sixth page, and upon the seventh will be found the weekly review of the San Francisco markets, miscellaneous notes, etc.

EVIDENTLY INSANE.

A man named Bailey committed suicide in this city the other day, leaving a letter. There is a passage in this letter which proves the insanity of the suicide conclusively. He refers to "some Order, com- 'gregated in the city," which is preventing him from doing what he wishes. Now this is a perfectly trustworthy proof of madness. It is indeed one of the commonest indications of incipient insanity.

Whenever a man begins to believe that some secret Order is plotting against him, he is already far gone in general paralysis of the insane, and he ought to be looked after. Unfortunately too many people are careless about matters of this kind. They hear a friend say things of this kind, and merely wonder or laugh at him. When, soon afterwards, they learn that he has perhaps taken his own life or that of some of his family, they remember, too late, how "queer" he had been previously. It is therefore well to bear in mind that strong apprehension of conspiracy is in ninety-nine cases out of a hundred a sure symptom of brain disease.

ORTH ON THE COMMITTEES.

Representative Orth's privileged statement in reference to Speaker Keifer's committee appointments no doubt voices a very widespread discontent. There is of course no help for the matter as it stands, but it is clear that the present method of appointing the committees does give the Speaker a power which is very easy to abuse. It is, as has been remarked, too important and complicated a business to be done by one man. Perhaps the best way would be to delegate it to a committee. At the best there would be disappointments, of course, but there ought not to be any flagrant inappropriateness in the appointments, and that is what is complained of now.

From Mexico.—The Record-Union has sent a reliable, intelligent and observant correspondent to the Republic of Mexico, who will write two letters each month. The rapid advancement of railroad building in Mexico promises in the near future to establish a more intimate relation between the United States and that country, and the letters of our correspondent cannot fail to interest our readers. The first of the series appears in this issue.

BISMARCK AND THE POPE.

Prince Bismarck has never been suspected of being sensitive to ethical considerations, and while he has labored hard and long to establish a united Germany, a free Germany has never been within the catalogue of his aspirations. To maintain the Prussian dynasty; to concede as little volition to the Reichstag as possible; to subordinate everything to the idea of national supremacy; to make alliances with those powers alone which can be utilized against France; and generally to work for Absolutism as against Democracy, may be said to summarize roughly the Chancellor's policy. Whether the working out of this policy is to bring evil or good to Europe has been a very interesting and a very problematical question from the beginning. When the Second French Empire collapsed at Sedan it was indeed easy enough to understand that up to that point the German successes had been a gain for the cause of human progress. But after the Empire came the Republic, and this shifted the center of sympathy again. There were then confronted, a France with Democratic tendencies; a Germany with Absolutist tendencies. In both the crushing spirit of Militarism was rampant, but in France this spirit had been somewhat chastened by adversity, whereas in Germany it had filled the minds of the people with a vaingloriousness which might easily tempt them into a career of conquest and aggression. The fall of the Second Empire made the unification of Italy possible, and destroyed the last hope of the restoration of the Pope's temporal power. In Louis Napoleon's time it had been French bayonets that had bristled around the Pope's throne, but these were now withdrawn, and Republican France sympathized with the Italian popular sentiment which would say if now the German and the Catholic should help the Roman and help the Pope to recover his temporalities? Amazing, almost incredible as the idea may be, the Nation's Berlin correspondent (always very trustworthy), positively states that this proposition is on the tapis. Bismarck has advised the Pope to leave Rome and take up his residence in the Prussian town of Fulda, the old bishopric of St. Boniface. And Bismarck's organ, the Post, thus plainly sets forth the anticipated effects of this step. It begins by saying that the Pope has a most formidable weapon wherewith to win back the temporal power, "much more than a temporary deliverance from an intolerable situation; it would be a weapon for the destruction of the Italian monarchy. The hostility between the priesthood, whose head was in exile, and the State, which had exiled it, would break out in open flames. The radicals would urge the annihilation of the priesthood, and the atheistic republic would raise its head. In Italy republicans and freethinkers are inseparable; the pillar and embodiment of everything that is sound and respectable in the Italian monarchy. The radical republic in Italy would be the transition to a restoration, and perhaps lead to a great war, if another republic should support the Italian republic and at the same time subject it to its rule. The Pontiff's fate, therefore, is not without efficient arms; in its exile it possesses a powerful weapon, which can ultimately destroy the Italian monarchy."

This is plain enough. The "other republic" is of course France, and the whole article intimates that the Pope's voluntary exile is to lead up to the proclamation of the republic in Italy; to an alliance between France and Italy; to the declaration of war upon both those republics by Germany; and thus to the restoration of the Pope's temporal power, as an incident to the overthrow of Democracy in Europe. It is an audacious and a cynical plan, and it must be said, thoroughly accords with Bismarck's character. The world would then see the statesman who boasted that he "would not go to Cannossa," turning the mighty power of Germany against the cause of Freedom, and playing the champion to that Church whose dark and sinister policy he himself has been compelled to fight with all his strength. And to secure the opportunity of completing the overthrow of France, Bismarck would thus coolly sacrifice Italy, and re-establish the temporal power of the Papacy. Unquestionably it is a daring game, but it is one which appeals to no progressive or liberal sympathies, and we are greatly mistaken if it is a programme which Europe would permit to be carried out.

It happens that Bismarck's defiant unscrupulousness, and his shameless bargains with the Ultramontanes, have at last united all the Liberal elements against him. Henceforth he will seek in vain to play off one of these factions against another. He has been too frank in his self-exposure, and they all know that they have nothing to expect from him. It is therefore by no means certain that he could carry such a policy as this through the Reichstag. But even if that were practicable, he could not make war upon France and Italy in such a cause without encountering the danger of an Anglo-French alliance. England and Germany have had strong Protestant bonds of union in the past, but not too strong to be broken if Bismarck changes his one and becomes the Pope's man-at-arms. England cannot look idly on while a war is waged one of the objects of which is to establish Popery; and England, France and Italy together would be an overthrow for Germany, even if Austria threw in her lot with the Prussianized Empire. No doubt a great European war could be set on foot in such a way, and perhaps Bismarck would not hesitate much before applying the match to the magazine. But what concession can the Vatican have made, or what can the secret fovee of the Berlin Government, to move the latter to so much as think of this desperate and revolutionary programme?

GRANT AND PORTER.

On the principle "Better late than never," General Grant's letter to President Arthur in regard to General Fitz John Porter is matter for satisfaction. It is perhaps due to Grant to say that however culpable his previous refusal to give this case a fair examination, there are not many men, who, having once committed themselves to an adverse view, would have had the courage and the manliness to acknowledge their error, to accept all the responsibility of it and to declare their complete conversion to the opposite opinion. Yet this is what Grant has done here. He admits with complete candor that he had never read the papers in the case; that he had allowed himself to be deceived by an incorrect map of Porter's positions in the first and second days of the second battle of Bull's Run; and that he had further allowed himself to be prejudiced against Porter by General Pope. But he says that at last he has gone carefully and thoroughly into the records of the case, and that after three days of close investigation he has become convinced that the verdict of the Court-martial was unjust; that General Porter did his full duty on the field of battle; that he has for nineteen years suffered under a cruel and undeserved stigma; and that he ought to be restored to his rank in the army. We say that considering everything this is a noble action of Grant, and it causes us to regret all the more that he should ever have forsaken for civil life that military career in which he had attained so splendid a fame, and all his associations with which were so honorable to him. And it is certain that in this matter his opinion is entitled to very great weight. In a question of military judgment few men are more to be depended on, and when he finds himself forced to the conclusion, despite his long-held prejudice, that General Porter did his whole duty in the battle at which he was adjudged to have played the traitor, the weight of authority is with the new opinion, and not with the conclusions of the Court-martial. In fact after such a complete reversal of Grant's old ideas on the whole subject, the most fixed believers in Porter's guilt must find that the foundations of their faith have been undermined, while those who have from the first held that the General was wronged will be all the more eager to have him vindicated. It is of course impossible in such a case to atone for the past. No restoration of rank can compensate for nineteen years of obloquy. No money payment can heal the wounded spirit of a brave soldier so persecuted. Yet the United States cannot afford to act meanly in a matter of this kind. The restoration must be complete in all respects. There should be no nagging over dollars. All that Fitz John Porter can by any possibility claim would not be in any true sense payment for his injuries; it would only be an attempt on the part of his country to palliate the injury it had inflicted upon him.

KARL MARX.

It is said that Karl Marx is dying. He has filled a perfectly unique position, has wielded a great though ineffective influence, has been the center of all manner of cloudy revolutionary movements which came to nothing. He appears to have been born with a genius for conspiracy. He was the Moloch of secret political organization. All the myriad associations of Italy and Germany and France, and the sham conspirators of the United States, also, were in communication with Karl Marx. He sat like a spider in the center of his web, and directed everything. No doubt he was a man of considerable power. He must have had the special power which commands the obedience of men. And he created the International. We can all remember, for it is a very few years ago, how portentously that organization loomed up at first. It was to be the organized expression of Labor all over the world. It was to be the machinery by which Labor was everywhere to utilize its strength in affecting legislation. It was to withstand the Absolutist governments, and finally to overthrow them. It was to put an end to Wars, and Tariffs, and Custom-houses, and national prejudices, and everything tending to exclusiveness. In short, it was to fraternize the whole world. The International held annual Congresses, but they did not do much good, for when it came to defining programmes many foolish things were said, and it became disagreeably apparent that very many of the most enthusiastic members asked nothing more than a chance to upset all existing institutions. Nevertheless the International continued to grow. It had its lodges everywhere, and it commanded money, and it possessed an elaborate organization, and had its regular organs, and appeared to be going forward in a business-like way. Then came the Franco-German war, and the closing horrors of the siege of Paris, and amid the fumes of petroleum and the sharp rattling crash of the platoon volleys at Satory, the International disappeared. It died of the Paris Commune. From that time to this it has been inert and lifeless. Karl Marx was not responsible for the blunders of his followers. He was a philosopher, and in the modern way he sought the Great Secret. But he lived to see his doctrines thrown aside; to see Bismarck stealing his thunder to checkmate the Socialists; to see French Republicanism drawing away further every year from the principles of Sansculottism; to see the paternal theory of his dreams employed to buttress Militarism, and to postpone the emancipation of Labor. He has lived a long and an eventful life, but little of fruition has blessed his painful labors. As he prepares to leave the world in which he has played so active a part he must surely feel that after all his endeavors the work remains to be done almost for the very beginning.

ARGENT AND GOAT ISLAND.

If there is any one point upon which the average San Francisco editor ought to be sensitive, it is the former raid against Senator Sargent because of the Goat Island affair. If there is any illustration which a San Francisco editor ought to avoid, if he has any sense, it is that episode. To accuse Mr. Sargent now of having done wrong in connection with Goat Island, is a stretch of impudence and imbecility which perhaps no other paper than the Chronicle would be capable of. For it is most certainly understood of all men in California at the present time that Senator Sargent was thoroughly and completely right in his proposition to give Goat Island to the Central Pacific Railroad Company for a terminus, and it is equally understood that among the many exceedingly foolish things San Francisco has done, her opposition to this scheme was one of the most silly and suicidal. The policy which directed the opposition was a sheer dog-in-the-manger policy. San Francisco had no use for Goat Island, and was never likely to have, but her stupid newspapers imagined that the way to get credit for public spirit was

to resist everything that promised to benefit the public, and so they led the community in that preposterous crusade. There can be no doubt that if the matter had to be determined again, Goat Island would be given to the railroad by an enormous majority. No honest man or journal any longer pretends to think that the former position of San Francisco was right or defensible. They are all heartily ashamed of it, and they feel that Mr. Sargent in this affair showed much more sagacity than they exhibited themselves. The attempt therefore to find a leverage for abuse of Mr. Sargent in the Goat Island case is particularly ill-judged, and it shows how desperately hard up for accusations against him his enemies must be when even a professional black mailer like the Chronicle is compelled to fall back upon so thin a charge. The simple truth is that in the Goat Island case Mr. Sargent represented the best interests of San Francisco and California with his customary fidelity, and but for the perversity and folly of a part of the San Francisco press, he would have doubtless carried the proposition to a successful issue, and have earned and retained the most sincere thanks of the community. His good intentions were more to be depended on, and when he finds himself forced to the conclusion, despite his long-held prejudice, that General Porter did his whole duty in the battle at which he was adjudged to have played the traitor, the weight of authority is with the new opinion, and not with the conclusions of the Court-martial. In fact after such a complete reversal of Grant's old ideas on the whole subject, the most fixed believers in Porter's guilt must find that the foundations of their faith have been undermined, while those who have from the first held that the General was wronged will be all the more eager to have him vindicated. It is of course impossible in such a case to atone for the past. No restoration of rank can compensate for nineteen years of obloquy. No money payment can heal the wounded spirit of a brave soldier so persecuted. Yet the United States cannot afford to act meanly in a matter of this kind. The restoration must be complete in all respects. There should be no nagging over dollars. All that Fitz John Porter can by any possibility claim would not be in any true sense payment for his injuries; it would only be an attempt on the part of his country to palliate the injury it had inflicted upon him.

AGRICULTURAL INSTRUCTION.

The publication is entered upon in this issue of the RECORD-UNION of a series of papers upon "Agricultural Instruction," which we invite special attention. Professor Hilgard in the chair of agriculture in the State University, recently commenced the term series of lectures to the agricultural class. These lectures consist of the teaching course, in largest part, in that department of the University, and embody the results of the chemical analysis conducted in the department, and of its experimental curriculum, as well as of the observations taken and the statistics and facts gathered concerning the climates, soils, methods of cultivation, and earth production upon the Pacific coast. These lectures will be reproduced by an advanced student in a form adapted to publication. They will thus constitute a complete digest of the instruction given at the State University in the science of agriculture, shorn of amplification and rendered more valuable still by the addition of the thought, experiment, research and study of Mr. H. Durst, the writer, who, thus, in a high sense, makes the papers original. To those unable to attend the lecture course of the University, and especially to the thoughtful agriculturists of advanced years, these papers, supplemented by their own experiments, and weighed by the judgment of their own observation, will prove of profound interest. They will possess, indeed, a very high value as presenting in a practical and well-digested form the whole course of agricultural instruction in the University. This department in the institution is possessed of the most ample facilities for obtaining agricultural information, and makes a careful and constant study of the soils and products of the State and of all matters relating thereto. The papers will be found to be of a character justifying their careful preservation either by filing or in scrap-books, and it is believed will do much toward the dissemination of practical information concerning the advance and discovery being made in agricultural science.

GRANT AND LOGAN.

It seems that there is a quarrel between a General Logan and some of the friends of Grant. It appears to have grown quite naturally out of the wounded vanity of both the chiefs. Logan thought he was not considered enough, and Grant thought Logan did not stand up stoutly enough for his friends. It is further insinuated that Logan committed the unpardonable sin in casting his adoring eyes upon the Presidency, and forgetting that that honor was reserved permanently for his master. Grant does not seem to have forgiven this at all, and General John has consequently found himself almost deserted by the men who still cling to the hero of the Chicago Column. This, however, is not so saddening to either side as the realization of the present incumbent of the White House. It is said indeed that Arthur does not attempt to disguise his wishes on this hand, and that in consequence of his outspoken intimations many of the Grant stalwarts who have become weary of carrying that insatiable magnate, have gone over to the President, pretending that they need not in so doing change any of their political ideas. Meanwhile General Logan is called upon to fortify himself against what looks like a double desertion, for it really appears as though both Grant's and Arthur's friends were about to repudiate him. The presumed meaning of all this is that Logan has developed too much ambition, and has shown too feeble an appreciation of his past benefits. He is therefore to be shown that there is no room for another Presidential candidate just now, and that he cannot count for help in regaining his seat in the Senate, either upon the Administration or the friends of Grant. As the people of Illinois, however, seem to be considerably tired of Logan, perhaps his enforced abdication may not be a cause of widespread regret after all.

THE GANNON-CAMPBELL CONTEST.

The indications are that Congress will refuse to admit either Gannon or Campbell, and this, as we have before said, seems to be the most logical and generally sound position to be taken, though it would be still more just if the fact of Gannon's ineligibility was ascertained. Of course it is allowable to reject him on the ground that he has no certificate, though that position savors too much of sharp practice. For it certainly is not Cannon's fault that he has no certificate. He was unquestionably the recipient of the majority of the votes. In truth he received nineteen-twentieths of all the votes that were cast. It was the plain duty of the Governor of Utah to give Cannon a certificate. The Governor violated his duty, and committed a flatly illegal act in giving the certificate to Campbell, who had been, not elected, but rejected, by the voters. Governor Murray's course in the matter was characterized by equal folly and presumption, indeed, and it proved him to be a most incompetent official. As to Campbell, he has no claim whatever to a seat, since a bogus certificate is certainly

no better than none at all. It would, however, be scarcely dignified in Congress to cast Cannon on a technicality. If he is not a citizen that fact will furnish a perfectly good and sufficient ground for declaring that there has been no election; but to refuse him a seat on the score of his lack of a certificate is like punishing a man for having had his pocket picked.

THE SHIPPING QUESTION.

The New York Chamber of Commerce has been struggling with that question of the revival of American shipping which so exercised the San Francisco Chamber a short time ago. The New Yorkers do not appear to have brought any original ideas to bear upon the matter. They are for the most part content to travel in the old ruts. Their principal suggestion is for the removal of duties upon the materials employed in ship-building. This suggestion would no doubt tend to facilitate the construction of ships, always provided that there was any demand for them; but the New York merchants do not seem to have realized that before there can be a revival of the American shipping trade there must be a revival of our foreign commerce. It would be of little use to build ships in this country if there was nothing to carry in them. It is true that they might compete for the carrying trade of Europe, though that could not make it uphill work. But they could not make it any easier to sell American manufactures in foreign markets, and after all that is the main end to be sought. The New York Chamber of Commerce will have to turn its attention to the tariff in other particulars than the materials in ship-building. If it cannot bring itself to do this, and to face the actual situation, it might as well spare the public its platitudinous and futile resolutions.

DEBRIS.

THIRTY-FIFTH DAY OF THE SLICKENS CASE IN COURT.

James W. Marshall, the Discoverer of Gold in California, Testifies in Behalf of the Defense.

The debris case opened at 9:30 A. M. yesterday, in Department Two of the Superior Court, Judge Jackson Temple presiding. Cross-examination of George G. Blanchard (by Attorney-General Hart) continued—Witness made a correction, by stating that yesterday he stated that the storage capacity of the reservoir of the El Dorado Deep Gravel and Mining Company was 1,000,000 cubic yards. I meant to say cubic feet, instead of yards. The dumps are decomposing all the time, and some of their material comes down with every flood. The cement in the El Dorado gravel mines is very similar to this sample (Gold No. 1). It is composed of rock and cemented sand. About 60 per cent is rock. It is not so hard as this blue gravel from the Indiana Hill pit. The lava overlying the gravel in the Lyon mine is about 110 feet deep. The lava in the Excelsior mine is very dark in color. This lava is not washed; it is thrown down and put out of the way with derricks. About 10 per cent of the lower gravel in the Excelsior is composed of sand. The balance of the mine is solid rock and cement. When I first saw the South Fork of the American river, near Coloma, the water was quite low. The banks were gravel and soil. The bottom was quite rocky. Silver lake originally was about two or three miles long and a mile and a half wide. The gravel of the water from Echo Lake ever supply of water from a creek that constantly runs into it. It has quite a water-shed, and the water-shed of this lake is fifteen miles long by ten miles wide. The dam that holds back the water of Echo Lake is a fine dam, ever ready to break on the head of Osgood creek. It is six or seven feet high. They draw the water from the lake to a lower point than its original level. Not a drop of water from Echo Lake ever reached the American river, until brought there by the tunnels and canals of this company, constructed by the late Sutter. During the month of July, I broke up the lake, and they have a sufficient quantity to fill their canals. The absorption and evaporation of this water from the lakes to the points where it is used will, perhaps, equal 30 per cent. [Witness described at great length the water-shed of the mines of El Dorado, the Grand Valley, the Yuba, the Yelano and Pochoatons. I base my judgment of the amount taken from the mines of El Dorado on the fact that I have seen the water from the mines in which I own, and of the amounts taken out of other mines; these other channels, seam and porphyry mines; they will last for many years, and it is a great mistake to say that they will not; they can be mined. The Lyon mine has been mined along the old river bed for a distance of 1,500 feet, and those men have become so accustomed to the water that they will not be deterred by the formation of the gravel just about how much it will pay. [Witness described the formation of the gravel in the El Dorado mines, and being worked on this old river channel.] I know of one instance where a man sold his mine for \$80,000, and thought he was making a great bargain. In less than three months the purchasers took out of the same ground more than the purchase price, and to-day it is valued at \$1,500,000.

MANLEY C. LAWTON.

Sworn. Direct examination (by W. C. Belcher)—I am a civil engineer, and reside in San Francisco. I have worked in the reclamation district of the South Fork of the American river, and in the Jersey district. I was engaged in those districts about six years. Union Island contains about 41,000 acres. Staten Island about 9,000, and Jersey district 3,200. The upper end of Union Island was terra firma, but the balance was a peat formation. A small portion of Staten Island on the upper end was earth, the balance peat. I have visited other islands in the neighborhood. The Jersey and Webb districts are not islands, but they are peat formations. The levees on the upper end of those islands where there was earth, were made with scrapers. In other places we made large, wide peat levees. They are signal failures. They decay very rapidly, and are liable to be burned up. In other portions we built retaining levees, and pumps. Peat seems to be a vegetable, fibrous growth. Its specific gravity is less than that of water. It is spongy and very combustible. Levees made of peat have proven failures in every instance. They shrink one-half its size, and when they dry crack open. I have visited Grand and Sherman Islands. The levees on those islands have all given away. The peat, when plowed up and cultivated, is a very valuable growth, and seems to have life. It is not, in my judgment, a deposit, but a growth.

CROSS-EXAMINATION (BY GEORGE CAVALDIER)—

Union Island is in San Joaquin county, between the Middle and Old Rivers. It is about 10 miles from the city of Stockton. About one-half of the island is terra firma. Peat means a low, vegetable growth, and seems to have life. It is not, in my judgment, a deposit, but a growth.

CROSS-EXAMINATION (BY J. K. BYRNE)—

I came to California in June, 1845, from Oregon. Since that time I have been in this State. I discovered gold on the 19th of January, 1848, in Coloma, in El Dorado county, on the South Fork of the American river. There were 20,000 to 25,000 dollars worth of gold in Coloma in 1849 and 1850. That was the banner discovery. In 1845 there was perhaps fifty people in the Sacramento Valley, exclusive of Indians. These were all men who were migrating to California to search for gold. In 1845 there was perhaps fifty people in the Sacramento Valley, exclusive of Indians. These were all men who were migrating to California to search for gold. In 1845 there was perhaps fifty people in the Sacramento Valley, exclusive of Indians. These were all men who were migrating to California to search for gold.

AFTERNOON SESSION.

Mr. Marshall continued—The flood of 1845 and 1846 covered all the present city of the city of Sacramento, and within two feet of the floor of Sutter's Fort. I was in Coloma during the flood of 1849 and 1850. The largest flood I ever saw at Coloma was in 1861 and 1862. That overflowed the lower portion, or Chinatown. I saw evidences of drift wood, however, that proved that the flood in some former year had been at least two feet and a half higher than the flood of 1849 and 1850. Just below the bridge at Coloma, the river is about 450 feet wide. I saw logs four feet in diameter that had been lodged 25 feet above the river bed at Chile Bar, and considerable quantities of drift wood have reached within the knowledge of the oldest inhabitants. Chile Bar is about three and one-half miles due north of Placerville. It is a small creek, and is a tributary of the American river. The water at Coloma during high water will carry down twenty times as much sediment as it did in 1845. There were several sand bars in the Feather and Sacramento rivers, and one near the mouth of the American river in 1845. The last flood which I saw was in 1845. The water of the Sacramento was that of 1846. Cross-examination (by Attorney-General Hart)—At the time I discovered gold at Coloma I was superintending the construction of a mill for Sutter and Marshall. At that time Mr. Sutter was engaged in raising stock at the Hook farm. He had a large herd of stock on what is now the Norris grant. They cultivated about eighty acres. Mr. Leidesdorff and John Sutter had large claims on the neighborhood of Johnson, Weyman and McComb were in the business of stock-raising, and occupied some of the land of Captain Sutter. The Montgomery family resided on the American river, about four miles from the fort. Sheldon and Taylor, on the Coloma river, had a claim on about 1,400 head of cattle, and cultivated about 40 acres. Jordan had a ranch on Cache creek, Volokoff, on Putah creek, cultivated about forty acres of stock raising. There were about forty acres under cultivation. These settlements I speak of as they existed in 1845.

QUESTION.—

Question—Don't you know that Nevada Algeria was a great stock owner, and had a great many horses?

Answer—I don't know as to that. He ought to have had some. I fit some with him that I was never able to get again.

I thought when I first came to California that the country contained a great many horses, and that they were to be discovered. Sutter commenced digging a race to a mill site near the mouth of the American river, and many were discharged here and there, and many of them went to work for Sutter. At the time I came here I saw a great many who witnessed the flood of 1845, and many of them had reached an immense old light. The fort at Sacramento was about two and a half miles back from the Sacramento river. The American river at that time was about twice as much water in the mountains in 1861 and 1862 as there was in 1849 and 1851. I am satisfied from evidences remaining along the banks of the South Fork of the American river to 1848 were two and a half or three feet higher than it has been since that time. I was in Sacramento shortly after the flood of 1849 and 1850, and saw the drift wood and high water in the shape of drift wood, etc.

Redirect (to Mr. Byrne)—Hook farm was on the Feather River, and owned by Captain Sutter. I went from Sutter's Fort to Hook farm once in a boat.

E. A. SMITH.

Sworn. Direct examination (by A. P. Callahan)—I am a civil engineer, and reside in Placerville. I have been engaged in that business since 1857. I have been a resident of El Dorado county for the last twenty years. I have been engaged a greater portion of the time in surveying mines and canals in that section. I am well acquainted with the topography of that country, and have traversed over portions of it very frequently. I made a map of the entire county last year. The drainage of the county is about 100,000 to 120,000 miles of it drains into the South Fork of the American river. I think that fully one-half of that area is, or has been, drift gravel or hydraulic mining. The average depth of the entire county is about 40 inches. The rainfall in Placerville for the following years was as follows: 1871, 43.84; 1872, 42.22; 1873, 37.28; 1874, 38.11; 1875, 50.52; 1876, 43.04. The rainfall at Georgetown was as follows: 1872, 38; 1873, 40.82; 1874, 43.04; 1875, 47.44; 1876, 80.77; 1877, 41.25; 1878, 61.31. The amount of rainfall in El Dorado county annually is from 20,000,000 to 100,000,000 cubic feet. The construction of roads and trails and the grazing of many thousands head of stock on the side-hills of that county during the summer months loosens up the surface of the soil, and is the cause of a very large natural wash. The making of the grades and the building of the Sierra has caused a great many landslides into the river. Some portions of the hills are now almost entirely destroyed, and a portion of it ten miles in length.

that a person could at this time travel on foot only with great difficulty. The road has all silted out into the river. Some of the silted-out roads to the top of the mountain. Some of them are two and three miles in length, and from 50 to 100 feet wide. The California Water Mining Company's canals head at Look Lake. From Look Lake it is dropped into Guerne creek, taken through a tunnel into Pilot creek, and thence down the Hill to Georgetown. The main reservoir is on Look Lake. Its present capacity is about 600,000 cubic yards. Its ultimate capacity, when the dam is completed, will be 2,500,000 cubic feet. The present capacity of its canal is about 1,200 inches. They have not cost less than \$500,000. The El Dorado Dam is on the American river, and has a great many canals and distributing ditches. The main canal takes its water from the South Fork of the mountain river at Cedar Rock, about 25 miles from Placerville. The length of the main trunk is twenty-four and a half miles. The flames are eight feet wide and six feet deep. The main supply reservoir is Silver Lake. It has an area of about 1,000 acres. It contains when drawn upon 850,000 cubic feet of water. Each acre contains in a regular manner 250,000 cubic feet of water. There are several smaller reservoirs, but they are only used in the winter. The capacity of the El Dorado Deep Gravel and Mining Company has cost over \$1,000,000. I have done all the engineering for that company for several years. The ditches and canals have cost more than \$700,000. Their capacity is 6,000 inches. The P-r canals carry from 1,200 to 1,500 inches of water. The capacity of the El Dorado county being covered to so great a depth by lava, necessitates their construction by the drifting process. The most extensive hydraulic mining ever done in that county was in the El Dorado mines. The hydraulic mines have been worked similarly. They are about 100 feet deep, and have an average depth of 100 feet. The ditches and canals are about 100 feet deep. The fill in the river at Coloma is from 2 to 30 feet deep. It is composed of cobble and sand, and is very compact. Weber creek is about thirty miles long, and is a tributary of the American river. It is a very fine stream, and is a very valuable one. It is a very fine stream, and is a very valuable one. It is a very fine stream, and is a very valuable one.

DESIRES TO MAKE SOME CORRECTIONS.

J. F. Talbot, recently a witness in the Gold Run case, now pending in the Superior Court of this county, takes issue with the testimony of witness H. H. Brown. The controversy relates to the early history of Indiana Hill. Mr. Talbot, in a letter to the RECORD-UNION, says: "In his testimony as published in the RECORD-UNION, H. H. Brown reported to have said: 'I was one of a company of five that first located on Indiana Hill. My location on that hill was prior to the organization of the El Dorado Mining Company. The facts are, as I had stated. Numerous companies had located claims on the hill, and the mining district was accordingly organized, according to the rules and customs of miners, long before he was known in the district, as it ever has been. In reference to the early history of Indiana Hill, he says: 'The hydraulic mining was introduced