THE STATE LIBRARY

SOME OF THE LEADING WORKS OF INTEREST.

Its Organization, Development and Management—A Glance at its Various Departments.

[Written for the New Year's RECORD-UNION, by C. E. Gunn, Deputy State Librarian.]

To the lovers of books or art there is no more interesting place in Sacramento than the California State Library. There, free to everybody, is an almost boundless fund of instruction and amusement; for, although the State is young, its library, in both the number and quality of its works, compares most favorably with similar institutions of sister States, and far surpasses the great majority of them.

The first active step toward the collection of a State Library was taken by the Legislature of 1850, in directing that the scattered books belonging to the State be collected and placed in the custody of the Secretary of State, who should also serve as State Librarian.

No very considerable additions were made to the library until 1856, when a collection of 3,500 standard law books was purchased at a cost of about $17,000. This formed the nucleus of the present library, and it has since steadily increased. In 1860 it contained about 20,000 volumes; in 1870, 25,000 volumes; in 1880, 50,000 volumes, and at the present time nearly 60,000 are on the register.

THE VARIOUS DEPARTMENTS.

The library has two departments, one devoted to law, and the other to miscellaneous works, and the two rooms are connected by a short hallway. The law library-room is not large—is far from being large enough. It is a boxy sort of a place, about thirty by thirty-five feet, and twenty feet high. On every side, from floor to ceiling, are books—nothing but books. In this small room are piled, tier on tier, thousands of law books, lining the walls till hardly an inch of white plaster appears to relieve the monotony of their dull leather bindings. Complete sets of law reports, and almost complete sets of statutes of England, Ireland, Scotland and nearly all the colonial possessions of Great Britain, and also of the States and Territories of our own country, are to be found here, covering a period from the celebrated Year Books, and even more celebrated Doomsday Book of mediæval England, to the present time, and spanning thus a lapse of six full centuries. Text-books, numbering thousands, from Fleta and Bracton and Grotius and Pufendorf, to the latest authors, are on the shelves. The briefs of attorneys filed in reported cases in this State are kept on file, bound and indexed, and now number nearly a thousand volumes, to which reference may readily be made. The law works at present number about 16,000 volumes and are increasing with great rapidity. A century ago there was not a single American report published. Now there are more than 3,000, and the rate of increase is in an accelerated ratio. In these books are found the law of the land to day, for the roots of the common law which we have adopted run back into the dark night of English history and English jurisprudence, and the decisions of those days are precedents still. It is a grave question whether it would not be better to abolish all this immense and expensive literary legal lumber and start anew to make laws, with the full light of our learning and civilization upon us, unhampered by the customs of feudalism, the spirit of vassalage, the distinction of class, the doctrine of divine right of Kings, and the thousand barbarisms and crudities and fictions bequeathed to us by the common law and which have infused themselves into our judicial system.

MISCELLANEOUS COLLECTION.

But we turn away from these grim old Chancellors, frowning down on us from their leather bindings at these sacrilegious suggestions, and seek the more congenial atmosphere of the miscellaneous library. The room is circular in form, and is about sixty feet in diameter. An open space about thirty feet across is left in the center of the room, and from the edge of this space to the outside wall run a number of partitions, shelved on both sides and filled with books, dividing the outer portion into nine alcoves. The inner end of each partition abuts upon a massive Corinthian column, which supports the floor above, and gives a most excellent architectural finish to the place. The room has two stories, architecturally alike, each about eighteen feet high, and divided by a light gallery half way up. This gives easy access to the books, though there is a good deal of climbing up stairs to reach certain classes of works. However, this is largely avoided by the arrangement of the books, those most frequently used being on the lower floor or first gallery, and those less frequently called for up stairs. And this tells us what people most read of. On the lower floor we find art, history, voyages and travels, letters, speeches, biography, fiction and miscellaneous works; on the upper architecture, mechanics, physics, engineering, geology, astronomy, mathematics, medicine, surgery, botany, zoology, anthropology, and periodical literature.

THE ART DEPARTMENT

Is especially rich in valuable works, and certainly has no equal on the coast. We refer not to paintings or sculpture, for of these it does not boast, but to its steel and wood engravings, its lithographs, etchings, retouched prints, photographs and photogravures. A week would not be sufficient time to note all the wonders and beauties of this little alcove. In the wilderness of interesting things one hardly knows where to begin. Here are copies of the artist's great works, pictures of the whole world's grand scenery, and portraits of its great men and women. Turner, with his wonderful skies and waters and mountains—he whom Ruskin, with his gorgeous and inimitable word-painting, made famous; Raphael, with his spiritualle faces and perfection of form and primitive Bible learning; Musee Francais, with its beautiful figures representing the masterpieces of ancient sculpture and ornament; Landseer, with his dogs and stags and flocks that look like life; Reynolds, with his scrupulous fidelity to nature; Dore, complete with his wonderful imagination for the grotesque and the horrible; Hogarth, with his almost too true lessons and warnings; and Gilray, with his fearful caricatures on English politics. All these are here, with hundreds of others of equal or lesser importance. Gerome and Masterpieces of French art will alone well repay one a visit to the Library. In them, with remarkable fidelity, may be seen pictures (photogravures) of the best paintings of the famous galleries of the Old World.

THE WORLD ILLUSTRATED.

To those who would see the old and new world, without the burden of the travel, this department will furnish an unceasing delight. We can only name some of the more important works in this choice and valuable collection, and the names alone must suffice to suggest their contents: "Galeries de Versailles," 16 volumes, folio; "Musee Pio Clementino," 8 volumes, folio; "Pitti Galerie," 4 volumes, folio; Roberts' "Holy Land, Egypt, Nubia," etc., 3 volumes, folio; "Mansions of England," 4 volumes, folio; "Description de l'Egypte," 14 volumes, folio; Sylvester's "Universal Paleography;" Daniels' "Oriental Scenery," 3 volumes, folio; Kingsbury's "Mexican Antiquities," 8 volumes, folio; "Selected Pictures," 4 volumes, folio.

Indeed the beautiful and historic places of the world may be almost made to pass in panoramic view before one, and in imagination one may travel in a few days from the mountain lakes and glens of Scotland and the icy shores of Scandinavia, through the boulevards of artificial Paris, along the water streets of Venice, over the seven hills of historic Rome, over the fallen columns and ruined palaces of Egypt and Asia Minor, by the Hindoo temples and pagodas along the banks of the sacred Ganges, across to the hieroglyphics of Central America, and back to our own unequaled Yellowstone Park and Yosemite valley, and see the ancient sculpture and celebrated paintings in European galleries, and the costumes of every people in every cycle.

Audubon's "Birds of America," life-size in colored prints, retouched by hand, comprises four immense folio volumes. It contains pictures of all the birds of America, life-size and color, and is very valuable and interesting, as are also Game-birds and Fishes and Animals, all of which are of a similar nature.

RARE EDITIONS.

Bibliomania, pure and simple, has luckily never invaded the library. Its managers have seldom sought far rare editions for their own sake. They have been imbued with the idea of making the library a practical one, and have turned the money at their disposal into different channels. And yet, in the course of thirty years, a number of works valuable on account of their age and rarity have come into the possession of the library. Among these are "Coke's Institutes," of 1628, annotated upon the margin by the former owner, General William R. Davie, Minister Plenipotentiary of the United States to France under Washington's administration; a Bible printed in 1599, a relic of the sixteenth century, brought to this country in the same ship with William Penn by Jonathan Robeson, a relative of his, continued in the family from generation to generation, and now believed to be the oldest copy of the Bible in the United States. It was used at the inauguration of Governor Booth as Governor of this State in December, 1871; two commissions, one appointing John C. Symmes Ensign of Infantry, and signed by Thomas Jefferson; the other, appointing Benjamin Lockwood Lieutenant of sub-Legion of Infantry, and signed by George Washington; "Virgilius Maronis Opera," 1544; Sir William Stanford's "Les Plees del Coron," 1583; and an illuminated prayerbook, done by hand on parchment at a date unknown, but evidently by monks in the latter part of the twelfth century. Apart from these, and a few others of more recent date, the library is composed of

WORKS OF PRACTICAL VALUE.

It has been the aim of the managers to first secure such books as would best assist our law-makers and State officers in an intelligent discharge of their duties. To the accomplishment of this end the law library was established and has been brought to its present high degree of perfection. A department of political science and political economy, with its kindred subjects of finance, banking, commerce, insurance and statistics, has received marked attention, and in it are represented nearly all the standard authors, from Adam Smith to the present, embracing almost every shade of economic thought, from the radical on the one side to his antipodes on the other. Ricardo, Ray, Bastiat, McCulloch, Mill, McLeod, Carey, Walker, Wells, Woolsey, and a host of others, are all here, together with a large collection of books and newspapers illustrative of similar subjects. But other fields have not been lost sight of.

THE MEDICAL LIBRARY

Is remarkably complete, and contains the standard authors on both general and specific subjects, a complete collection of the Sydenham Society publications, numbering several hundred volumes; complete sets of Woods' "Medical Library" and "Guy's Hospital Reports," and the principal medical and surgical journals of England and America. Among the recent additions to this department are a large number of standard works on homeopathy. With history and biography the library is especially well supplied, the volumes in these departments numbering many thousands. In view of the present and future importance of the question of irrigation in this State, special attention has been paid to works on engineering, drainage and sanitary matters, and in them the library is specially complete. The scientific departments—mineralogy, geology, astronomy, chemistry, botany, mathematics, natural history, applied mechanics—all contain the standard and latest authors upon the subjects, and often lighter works for popular reading.

The practical and the useful being always kept in view in the building up of the library,

ROMANCE AND FICTION

Have not received the attention that many other departments have had bestowed on them. Nevertheless the works of the best authors in that line—Dickens, Thackeray, Bulwer, Fielding, Smollet, Scott, Hawthorne, Eliot, De Foe, Lever, and numerous others—are on the shelves, and, for general reading, the departments of poetry and drama, voyages and travels, and essays and miscellaneous, are filled with a vast variety of works for both instruction and amusement, from Shakespeare, Milton and Chaucer, and Bacon, Burke and Landor and North, down to the light and humorous works of Mark Twain and Artemus Ward. The interest recently manifested in Indian literature has resulted in the purchase of the

"SACRED BOOKS OF THE EAST,"

Twenty-seven volumes, just translated and now edited by the famous philologist, Max Muller. These books have long been closed to the people of the Western world, and now for the first time have the seals been broken and the literature and worship and religion of the Orient made known to the Occident. Many of the books are not new; nor were they purchased new from the booksellers' shelves. Works long since out of print are picked up at second-hand bookstores, or purchased at auction sales, and frequently English books tell strange stories not found on the printed leaves. Coats-of-arms and names and titles of men of noble rank are on the fly-leaves, and tell the stories of fallen houses and ruined families that once were great and wealthy and covered with honor, but whose property at last was lost to them under the hammer of the auctioneer.

The library draws its support from two sources; first, from a system of exchanges adopted pursuant to law with sister States and foreign countries, whence is derived most of the laws, law reports, and legislative documents and reports; and second, from the fees paid to the Secretary of State for the issuance of commissions, articles of incorporation, certified copies of laws and documents, etc. These amount to several hundred dollars per month.

OFFICIAL CONTROL.

The library is under the control of a Board of Trustees, consisting of five members, elected by the Legislature in Joint Convention, and holding their offices for the term of four years. They serve without pay, but are authorized to appoint a State Librarian, who serves at a salary of $3,000 per annum, and is ex officio Secretary of the Board. He in turn may appoint two deputies.

The library is open and free to the use of all who choose to avail themselves of it, but it is not circulating, in the ordinary sense. Books may be taken therefrom by the members of the Legislature during legislative sessions, and by the State officers at any time, and this privilege has usually been extended to the medical profession and the clergy by the Board of Trustees. But it is not the privilege of everybody in the State, indiscriminately, to take books from the place, and it is well that this is so. The larger part of the works are mainly for reference, and should remain where they can readily be found, and the patrons of the library be assured of the use of the work they want when they seek it there.

The present officers of the Library are as follows: Board of Trustees—A. C. Freeman, of Sacramento, President; I. S. Belcher, of Marysville; J. J. Owen, of San Jose; E. W. Maslin, of Loomis, and Matt. F. Johnson, of Sacramento. State Librarian, Talbot H. Wallis; Deputies, C. E. Gunn and F. F. Freeman.

Hell Gate Illuminated.

The experiment of illuminating Hell Gate with the electric light is pronounced by the New York *Herald* a striking success in every respect. The light was furnished by the Brush-Swan Electric Light Company, and nine lamps each of 6,000 candle-power were employed. The tower of the lighthouse consists of four corner posts, placed so as to form a pyramid. The posts are 54 feet apart at the base and five feet apart at the extreme top. Each side is divided into ten panels, which taper toward the top. The columns are composed of two angles, united by systems of latticing. Each column is anchored by bolts to a block of concrete nine feet square at the base and ten feet high. The gallery of the tower, where the lamps are placed, is 250 feet above the ground. It is eleven feet wide, the projecting parts being supported by braces resting against the columns. There is a marine railing three feet four inches high running around the gallery, and from this railing the lamps are suspended in a circle. Above the gallery are cross bars supporting the elevator by means of which the top of the tower is reached. Crowds gathered at various points along the river to witness the effect of the new light. When the power was turned on the spectators first perceived a dull glow high up in the darkness of the night. Then, an instant later, there gushed forth such a flood of light as threw into brightest prominence the dark surroundings of Hell Gate. Brighter and brighter, broader and broader, grew this luminous stream. Far away in every direction strengthened the broad waves of light, bringing into bold relief the spires and turrets and house-tops of the city, the shipping in the harbor, and the great public buildings on Randall's, Ward's and Blackwell's Islands. To the north they fell upon the slanting roofs of Harlem, to the west they showed with distinctness the white walls of Astoria, and to the south they showed the outlines of the big bridge.

In Mexico it unmannerly to eat anything outside of a house, even candy.

OUR QUARRY WEALTH.

BUILDING STONES, COAL FIELDS, AND LIME PRODUCTIONS.

An Interesting Paper Descriptive of those Valuable and Important Resources.

[Prepared for the New Year's RECORD-UNION.]

When a city springs into existence in a new locality, stimulated by circumstances into a rapid growth, it is found necessary to utilize convenient materials, generally wood, in the construction of buildings for temporary and immediate use. History informs us that wood was extensively used in the construction of houses in ancient cities. These afterwards were replaced with brick, and then of marble and similar stone. A similar experience has been noticed in Chicago and San Francisco. The older a city grows the more substantial becomes her buildings, and the greater amount of stone enters their construction. Within a few years the elegant cities of this delightful State will have to be almost entirely rebuilt, as the buildings nearly all are of pine and are now falling rapidly into a condition of decay. The short lived wooden buildings must and will be replaced by those of a better and more durable character. Building stones of excellent quality are abundant in California. It is a mistaken idea that some entertain, that the hardest stones are the most enduring, or that any stone is indestructible. Soft building stones in New York City show decay in five and do not last over thirty years. Granite begins to decay in fifty years. Building stones on this coast, owing to climatic influences, last much longer than on the Atlantic side. The rocks usually employed in building are granite, syenite, porphyry, freestone or sandstone, diorite or greenstone; lavas, including basalt and trachyte; limestones, including marble, tufa, dolomite, slate, serpentine, etc.

Granite is quite common and abundant in California. The great belt of the Sierra Nevada is composed of this rock. It is also quite abundant in the Coast Range. It occurs near San Francisco, at Tomales Point, Marin county, Bodega Head and Punta de los Reyes, at Point Carmels and at Cypress Point, near Monterey, where it has been quarried. It has also been extensively quarried at Folsom, in Sacramento county, where the branch State Prison has been located in order to work the convicts in the quarries; in Amador county, near the town of Volcano; near Grass Valley, Nevada county; in the Temescal range, and at Tehachipi and Tejon.

The first stone building erected in the State was in 1851, near the corner of California and Front streets—Nos. 204-210 California street. It is built of granite quarried in China, and was erected by Chinese workmen. The building still stands, apparently in as good a condition to-day as it was when erected by Ebbetts & Co. 33 years ago.

Parrott's building, corner of California and Montgomery streets, long occupied by Wells, Fargo & Co., was constructed of Chinese granite in 1852.

The marble building at No. 614 Washington street was erected by Mr. Truebody in 1854, the material used being marble imported from New York.

The first California quarry opened in the State was that at Folsom, in Sacramento county. In 1853 G. Griffith furnished from that quarry the granite for the Wells-Fargo building in Sacramento and for the Government works at Fort Point and Alcatraz. The Penryn quarries in Placer county were located by the same gentleman in 1864. This quarry is practically inexhaustible. The present demand of 10,000 tons per year is constantly increasing, and the orders come from every portion of the State. As a general thing it is used in its simple hewn form, but latterly there has set in quite a demand for the polished material, more particularly for sepulchral urns, obelisks and monuments, and for the grand approaches to the places of the wealthy. So great has become this demand that Mr. Griffith has erected at his quarry a polishing mill, the only one on the coast. It is a building 100x40 feet, and has a polishing capacity of 100 cubic feet per day, which can be largely increased. The machinery is so constructed that a stone of ten tons weight can be easily handled while being polished. The machinery is varied, embracing all the newest inventions. The derricks are new, of the most improved pattern, and the six largest are capable of lifting a weight of twenty tons with ease.

Sandstone, or freestone, marble, slate and green stone are largely used for building purposes.

CALIFORNIA COAL MINES.

California possesses important and valuable minerals in greater variety and abundance than any other State in the Union, yet she has not shown such wealth in coal as is to be desired, or as it is to be hoped the future will reveal. Deposits of mineral coal are found at many places throughout the State, some of them quite extensive, but none of those so far discovered are of the better class of fuel. Nearly all the coal so far discovered in the State is a lignite, and does very well for making steam and for domestic uses. No anthracite or first-class bituminous coal has been found on the coast. The Mount Diablo mines were opened up in 1860, and since then has turned out on an average of 100,000 tons per annum. The Mt. Diablo are the only coal mines in the State that have been worked to any considerable extent, and with even the smallest profit. This coal field is a belt extending for ten or twelve miles along the northerly slope of Mt. Diablo. All of the mines, however, that have here been profitably worked are included in a section of this belt, reaching not over two and one-half miles along its western portion, and extending from the workings of the Black Diamond to those of the Pittsburg Company. There are two principal veins—the Black Diamond, having forty inches of coal, and the Clark, having thirty-four inches. Considerable money has been expended in that region prospecting for coal, but only in a few instances have deposits sufficiently large been developed to warrant their being worked. The trouble with the Mount Diablo mines is twofold—the inferior quality of the coal, and the cost of extraction.

In Ione valley, Amador county, a bed of lignite is found near the surface; can be easily worked, and varies from five to fifteen feet in thickness. It was discovered in 1870; but little work was done on it, however, until 1877, when the product for the year amounted to 3,458 tons. This coal has been found to answer for making steam for general purposes; still it does not answer for locomotives, and the Central Pacific has discontinued its use. That company, several years since, constructed a road from Galt to those mines, a distance of twenty-two miles, expecting that the coal could be used for locomotive fuel. As it turned out differently, the company sustained a heavy loss. All the coal that is being taken out of those mines now finds ready sale at remunerative prices, and is used by the flouring mills and other industrial establishments in the vicinity, and also to some extent on the steamers on the Mokelumne, San Joaquin, Sacramento and Feather rivers.

Shortly after the opening of the coal-bed at Ione a deposit similar in character was discovered near the town of Lincoln, in Placer county. Several car-loads are taken from the mine daily. Though an inferior article it finds a ready market, as it answers tolerably well for making steam and as an ordinary fuel. The owners are sinking a new shaft on the vein with a view of facilitating the work of extraction. This mine is favorably situated for shipping, its product being only a few hundred yards from the California and Oregon Railroad.

Traces of coal have been discovered at Corral Hollow, in the hills to the south of Livermore Pass. A large amount of money was expended there in prospecting, but no valuable bodies were developed.

Recently coal was discoved in San Diego county, four and one-half miles from Laguna station, on the Southern Pacific Railroad. A vein of lignite four and one-half feet thick was discovered on the eastern slope of the mountain in what is known as the McIntosh & Cheney mine. The tunnel was driven into the mountain-side about 200 feet, when the vein was found to increase to a thickness of over seven feet, was of uniform quality and solid throughout. Assays of the coal show it to be about the same as that of Mount Diablo and Coos Bay. It can be broken out readily without the use of powder, one man mining several tons a day. This is regarded as one of the most valuable finds in the State, and if it turns out well it will prove of great advantage to that section of the State, which is so scantily supplied with wood.

A vein of coal six inches in thickness has been discovered in Mono county, some twenty-five miles east of the town of Bodie. The deposit occurs in a sandstone formation, and is said to burn well. It has not been developed to any great extent.

Some encouraging coal signs have been discovered in Los Angeles county, four miles from Fulton Wells. It is said to be quite promising, though as yet undeveloped. The vein is several feet thick, of a bituminous character, and burns freely and steadily in an open grate. This bed has been traced by croppings for several miles through the Puente Hills, where it can be easily worked and can be reached by rail on either side. The further exploration of this promising coal field will be awaited with interest.

Coal signs have been discovered in almost every county in this State, but as yet but few comparatively have been prospected. An immense body fifteen feet in thickness has been discovered on the Middle Fork of Eel river, in Mendocino county, eight miles south of the village of Round Valley. The locality is in the heart of the Coast Range, and could only be reached by an expensively constructed railroad.

CALIFORNIA LIME.

Lime is found in considerable quantities in Oregon and Washington Territory, but by far the best and most extensive quarries found on the Pacific coast are those of California. For a number of years after the State was settled by the whites, especially throughout the mining districts, but little lime or plaster was used, as the buildings of those pioneer days were mostly of pine lumber, the interiors of which were cloth-lined and papered. There was almost a total absence of brick chimneys, and but few buildings were erected upon stone foundations. Buildings thus constructed were flimsy affairs, and mere tinder in a conflagration. Destructive fires occurred so frequently that it was found necessary to erect more substantial buildings, and this of course necessitated the opening up of a new industry—the burning of limestone. To supply the demand the first kiln was erected by a gentleman by the name of Shreeve in the spring of 1851 at the Mt. Diablo quarries, near the town of Pacheco, in Contra Costa county. Lime had been manufactured many years prior to that by the early Spanish settlers. That they made a good article is attested by the durability of some of their old mission churches, and the manner in which the whitewash they applied to their walls has withstood the exposure to the weather of a century. In June, 1851, a kiln was started by Mr. Davis in the hills back of Mayfield in Santa Clara county. From those small beginnings the industry, as the article was required, spread throughout the State. From 1849 to 1853 nearly all the lime used on the coast was brought here from the East. Owing to the danger of spontaneous combustion in transit, the lime was slaked before being shipped and arrived here in a condition similar to putty.

THE PRINCIPAL DEPOSITS.

The principal deposit of the State consists of a belt of lime rock extending along the westerly foothills of the Sierra Nevada range, traversing the gold fields of the State. It extends for a distance of 150 miles—from Mariposa county to Butte. In many places, notably Columbia, Indian Diggings and Colfax, this deposit consists of an excellent quality of marble, is susceptible of a very high polish, and is much used for monument purposes. The "Alabaster Lime Works," in El Dorado county, is one of the most important on the coast, and the property of the H. T. Holmes Co. They have a "monitor" kiln, having a capacity of 3,000 barrels per month. At this quarry, and owned by the same company, is the famous Alabaster Cave, a cavern of considerable extent, wondrous beauty, and which has a front rank among the natural curiosities of our State. The lime made at the Alabaster works is noted for its purity and whiteness, is well suited for the purification of gas, and for that purpose is largely used. H. T. Holmes & Co. also own several kilns near Clipper Gap, in Placer county, but they have not been operated during the past two years. A metamorphic limestone is found at intervals for hundreds of miles along the coast range mountains. The lime-works in Santa Cruz county are the principal on that belt. Several are located near the town of Felton. Three-fourths of all the lime that goes to the San Francisco market and one-third of that produced in the State is made near Felton, where the facilities for manufacturing and shipping are quite good. Wood and water is abundant, and shipments can be made either by rail or water. About 300 men are employed in the State as laborers in the business, and their wages will average $1 50 per day. For a time lime sold in San Francisco at from $8 to $10 per barrel, but these rates did not hold more than for a few years. Lime is now worth from $1 25 to $1 50 per barrel. The prospect for the coming year in the business is quite good. The quantity made in the United States last year was 31,000,000 barrels, of 290 pounds each, having a total value at the kilns of $21,700,000.

DESCRIPTION OF A KILN.

The Monitor lime kiln is thus described: "It consists of a cylinder of boiler iron, lined with fire-brick. It is usually located on a hillside, so that the limestone can be run from the quarry by means of an elevated tramway to a door in the upper part of the kiln, ten to twenty feet above the fire. Above the cylinder an iron smoke-stack rises twenty to thirty feet to insure a draft; below the cylinder are the fire-places, consisting of a number of fire doors opening into converging openings, in which wood is burned over ashpits, into which the ashes fall through grate bars. The limestone is fed into the upper door and drawn out, when properly burned, through a lower opening below the fires, at which point it is shoveled into barrels. The advantage of the Monitor lime kiln over the old-fashioned style consists in the fact that the former can be run continuously, whereas with the old kind, when a batch of stone has been burnt, the fires must be extinguished, and renewed after the kiln is again filled with stone. This, besides the trouble of putting out and relighting the fires, causes considerable loss of time. The cost of the Monitor kilns varies from $3,000 to $5,000, according to capacity.

Lime of different qualities is found in the following-named counties: Amador, Butte, Calaveras, El Dorado, Humboldt, Inyo, Kern, Los Angeles, Monterey, Nevada, Placer, Plumas, San Bernardino, San Luis Obispo, Santa Cruz, Shasta and Tuolumne.

The daily product of the State is about 800 barrels or eighty tons per day. Some lime also finds its way into California from Puget Sound. There are four prominent companies in the State, viz: H. T. Holmes & Co., Davis & Cowell, the I. X. L. Company and the California Lime Company. The kilns in Placer and El Dorado counties produce about 200 barrels or twenty tons per day, and is constantly increasing. The lime in those quarries is the best on the coast, assaying as high as 87 per cent. of carbonate of lime.

One of the most promising quarries in the State is that lately discovered near Clipper Gap. It has been purchased by a company of San Francisco and Sacramento capitalists, known as the California Lime Company, of which J. R. Watson, of Sacramento, is President, and H. C. Marks, of San Francisco, Secretary. They are developing the ledge, which is said to be 600 feet thick, half a mile in length, and of superior quality. They have expended a considerable sum in facing the ledge and erecting kilns, and expect to be in active operation early in the spring. An extensive cave has been discovered on the grounds, but has not been explored, owing to the fact that it is the habitation of hundreds of large rattlesnakes and other venomous reptiles. The cavern is full of beautiful crystal formations and stalactites. The ledge is located two miles southeast of Clipper Gap, is two and a half miles from the line of the railway, and was discovered in September last.

The Lost Atlantis.

Those who hold to the theory of the lost Atlantis will read with satisfaction of the interesting discovery of H. Meyer, the archæologist, who says: I have, in my archæological excavations on the Island of Zapatera, made a rather interesting discovery. About forty-two feet under the surface of an ancient cemetery (four feet vegetable soil, fifteen feet volcanic ashes), I discovered a rock which, judging from the figures it contains, has served in remote times for astronomical observations. On the rock I have found two stone tablets, one of which contains a representation of this world, part of Africa and Asia, united Europe and this continent; a large continent is situated on the Atlantic Ocean, which I consider to be the mythical lost Atlantis mentioned in some of the ancient authors. The other tablet contains inscriptions, of which part is undoubtedly Phœnician. Owing to the rainy season I have for the present suspended work on Zapatera, where it is possible to excavate on account of soil. * * * The volcano of Ometepe, which opened last pear, is continually working; its thunder and roaring are sometimes frightful; yet part of the people who last year left the island have returned to their homes.—[Boston Transcript.

THE THREE PIGS.

A Story for the Little People of the Household.

[Written by a prominent Member of the Sacramento Bar for the New Year's RECORD-UNION.]

The following story has been handed down by oral tradition through several generations of the writer's family, but, so far as he is informed, has never yet appeared in print. That it does so now is due, not to the approval of adult criticism, but to the singular fascination it has always seemed to possess for the infant mind—a fact which is no doubt attributable to its sound morality and the strict poetic justice meted out to the various personages concerned. Let it be remembered, then, that this is a story for very young people, and if any person of maturer years and more sophisticated tastes, after reading it, or attempting to do so, feels inclined to stop his subscription to the RECORD-UNION, he is advised to first try the following experiment: Take a small boy (or girl) of from three to five years of age, put him comfortably to bed, and in the awaking interval that ensues read him the story with some slight attention to dramatic effect. If after this you are not required to do the same thing over again every night for a year or such shorter period as any remnant of your patience may endure—then your experience will differ from that of other people. So much by way of preface. Here is the story:

Once there were three pigs that had each lost his mother. One was a big pig, one was a little pig, and the other was a middle-sized pig.

These pigs, because they had no mother, got very little to eat, and were often very hungry. In the long, warm summer days they contrived to get along tolerably well, but as the winter came on and the days got short and cold, they found they were going to starve unless they went out into the big forest where the nuts and acorns grew.

They had often heard that there were plenty of nuts and acorns in the big forest, but they had always been afraid to go there, because they had heard that an old bear lived in the woods and was very fond of eating pigs. But at last they found that they had either to starve or run the risk of being eaten, and so one morning they started early and traveled on till they came to the middle of the big forest.

When they got there among the thick trees they found plenty of nuts and acorns on the ground, and soon had as many as they could eat. When they got tired of eating they next began to think about a place to sleep at night. After talking the matter over they concluded they would have to build themselves some houses out of the sticks and leaves that were lying all about them, and so they set to work getting the sticks and leaves together. But when they tried to build their houses they found that they could not get along very well working each by himself, and so the big pig said that if the others would help him build his house he would help them build their houses. This seemed to be such a good plan that they all agreed to it, and went to work and built the big pig a very nice house where he could keep dry and warm in the cold nights. As soon as the big pig's house was finished, they all set to work and built another just like it for the middle-sized pig. Then the little pig said: "Now come and help me build my house."

But by this time it had got pretty late, and the big pig and the middle-sized pig were tired, and had begun to get hungry again, and so they told the little pig that they really did not have time to help him build his house; that it was getting dark, and they had to get some nuts and acorns for supper before they went to bed.

"But," said the little pig, "you got me to build your houses, and you promised to help me build mine, and I want you to do as you promised. I can't build it myself, and if you don't help me I will have to sleep out in the cold and dark all alone."

"Well," said the big pig, "that won't hurt you; in fact, you will find it very good for your health to sleep out in the open air, and when you get a little used to it you won't mind the cold."

"But," said the little pig, "I am afraid to sleep alone out in the dark woods."

Then the others told him he was a silly little pig to be afraid of the dark; and at any rate they had no time to help him build a house, and if he did not wish to sleep out of doors he would have to build one for himself the best way he could. They then went off and commenced eating acorns, and left the little pig to look out for himself. He did not know what to do, and so he just ran about among the trees squealing and crying. While he was running about in this way he happened to see a large tree that was hollow inside, and had a little hole in it just large enough for him to go through. The little pig crept in through this hole and found that it was soft and warm and dry in the hollow of the tree, and he at once made up his mind to have it for his house. Then he went and ate a few acorns, and afterwards went to bed in his hollow tree. The big pig and the middle-sized pig, after they got their suppers, went to bed in their houses.

Now there was an old bear that lived near by in the forest, and he had been watching while the pigs were getting their houses ready, and had made up his mind to have one of them for his supper. So pretty soon, after the big pig got in bed, he heard some one knock at his door—tap, tap, tap.

"Who is there?" said the big pig.

"It's me," said the old bear.

"Well, what do you want?"

"I want to come in and see you."

"Why, it's too late to have company to-night," said the big pig; "and I have gone to bed."

"You had better get up and let me in," said the old bear, "or I'll tear your house down and eat you up."

"Well, I can't let you in," said the middle-sized pig; "and I have gone to bed."

"You had better get up and let me in," said the old bear, "or I'll tear your house down and eat you up."

"Well, I can't let you in," said the big pig; "I am afraid."

Then the old bear, without another word, tore his house down and ate the big pig up clean. He did not leave a thing except his bones, and some blood smeared around.

The next morning when the middle-sized pig got up the first thing he saw was the big pig's house all torn to pieces, and then he saw the big pig's bones and blood. When he saw these things he was so scared that he had no appetite left for breakfast, and he felt so lonesome that he started off to try to find the little pig. Pretty soon he found the little pig out among the thick trees eating nuts and acorns. When he saw him quietly eating his breakfast, he asked him if he did not know that the big pig had been eaten by a bear the night before.

"Yes," said the little pig, "I know it."

"Well, then," said the middle-sized pig, "how can you have any appetite for breakfast? Arn't you scared? Don't you know he will come back and eat us up, too?"

"Oh, no," said the little pig, "I am not afraid; a bear can't get into my house."

"Your house!" said the middle-sized pig; "I did not know that you had any house. I thought you were going to sleep out of doors."

"No," said the little pig; "when you and the big pig left me to take care of myself I looked around, and found a nice hollow tree and I took that for a house, and no bear can break that down."

"Where is that hollow tree?" said the middle-sized pig. "I want to see it." Then the little pig took him and showed him his hollow tree.

"Well!" said the middle-sized pig, "that is, indeed, a good house. I believe I will come and live here too."

Then the little pig said, "You ought to be ashamed of yourself, to ask me to let you live in my house after the way you treated me; but, all right; you may come if you want to."

So when night came the middle-sized pig went to the hollow tree and started to go in, but, lo and behold! the hole was too small for him, and he could not get in. Then he had to go back to his own house to sleep, and he was awfully scared, for he expected the bear would come to eat him. Sure enough, he had scarcely gone to bed before he heard a knock at his door—tap, tap, tap.

"Who's there?" said the middle-sized pig.

"It is me," said the old bear.

"Well, what do you want?"

"I want to come in and see you."

"Why, it's too late to have company to-night," said the middle-sized pig; "and I have gone to bed."

"You had better get up and let me in," said the old bear, "or I'll tear your house down and eat you up."

"Well, I can't let you in," said the mid-sized pig; "The old bear went home, and the little pig went to sleep, but he woke up very early in the morning and went to the pumpkin-field and ate all the pumpkin he could swallow, and then ran back to his hollow tree and crept inside.

Pretty soon he heard a knock at his door—tap, tap, tap.

"Who's there?" said the little pig.

"It's me," said the old bear. "I've come to go with you after those pumpkins."

"Oh, pshaw!" said the little pig; "I don't want any more pumpkins. I had all the pumpkins I could eat more than an hour ago."

Then the old bear saw he had been fooled, and he went home madder than ever.

But he thought he would try another trick, and that night soon after the little pig went to bed he heard a knocking at his door again—tap, tap, tap.

"Who's there?" said the little pig.

"It's me," said the old bear.

"Well, what do you want this time?"

"Oh!" said the old bear, "I just thought I would come over and tell you about a nice orchard that I know of where we can go and get all the apples we can eat."

Now the little pig had once tasted an apple, and liked it better than anything in the world. So he asked the old bear where the orchard was, and the old bear told him. "All right," said the little pig, "you come over to-morrow morning after breakfast and I'll go with you and get some of those apples."

Then the old bear went home and the little pig went to sleep, but he awoke up very early in the morning and went off to the orchard and ate all the apples he could swallow, and then ran back to his hollow tree and crept inside.

Pretty soon he heard a knock at his door—tap, tap, tap. "Who's there?" said the little pig.

"It's me," said the old bear, "I've come to go with you after those apples."

"Oh, pshaw!" said the little pig, "I don't want any more apples. I had all the apples I could eat more than an hour ago."

Then the old bear saw he had been fooled again, and he went home madder than ever.

But he thought the matter over and concluded to try still another trick; and so that night, soon after the little pig went to bed, he heard a knock at his door—tap, tap, tap.

"Who's there?" said the little pig.

"It's me," said the old bear.

"Well, what do you want now? What are you coming around here every night for?"

"Oh," said the old bear, "I just thought I would come over and see you about an auction there's going to be to-morrow, where we can go and buy everything we want."

Now, the little pig was very anxious to get a churn. Nobody has ever known what he wanted to do with the churn, but he did want it. So he asked the old bear where the auction was to be, and the old bear told him.

"All right," said the little pig; "you come over to-morrow morning after breakfast, and I'll go with you to that auction."

Then the old bear went home and the little pig went to sleep. But he woke up very early in the morning and went off to the auction to buy his churn.

But when he got to the auction they were not selling churns, and he had to wait a long time before he got a chance to buy one. When at last a churn was put up for sale the little pig bought it and started home in a great hurry, carrying his churn with him. But it was then pretty late in the morning, and when he got to the top of the hill from which he could see his hollow tree, there he saw the old bear sitting right by his door waiting for him.

Then the little pig was scared. He thought his time had come to be eaten up, and at first he did not know what to do. But at last he thought of a trick to play on the old bear. So he laid his churn down and crept inside of it and started it rolling down the hill. As it came rolling and tumbling along with the little pig inside of it, and making a great noise, the old bear heard it, and looked up and saw it coming. He had never seen anything like it before, and it scared him so that he started to run away; and he run so fast he did not see which way he was going; and he struck his head against a tree and broke his neck, and killed himself dead.

And the little pig never had any more trouble.

The Commandery of Nevada City expects to be represented at the Triennial Conclave of Knights Templar to be held in St. Louis in 1886 by a drill squad of twenty-four, besides the Eminent Commander and staff, making twenty-eight men in all. The Knights who propose going will have a meeting to arrange for holding an encampment the coming summer to perfect themselves in marching and sword practice.

WHAT WE PAY FOR PIANOS.

FEW PEOPLE HAVE ANY IDEA OF THE expense of bringing Pianos from the East and the cost of selling them in California. The price paid for Pianos here is not for the actual building of the instrument. By adding in the following and deducting it from the cost price asked by Piano dealers, a buyer can estimate the actual cost of a Piano in the East at the large factories: First comes freight, $40, contract rates; boxing, $7 50; opening Piano in California, $2 50; tuning, $2 50; polishing, $5; dealers' or agents' profits, about $125; total expense to buyer, $182. Now, suppose $350 is asked for the Piano, $182 is paid on it in expenses and profits to the agents, and $168, or less than half, is all that is paid on the Piano. Most of the imported Pianos to California cost less than $150, and are sold from $300 to $