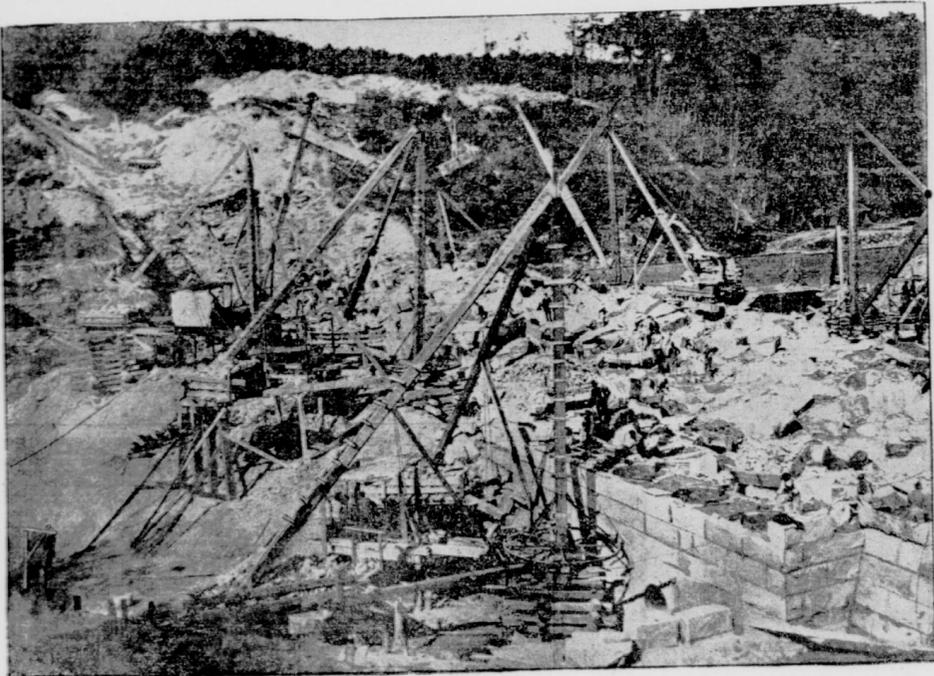
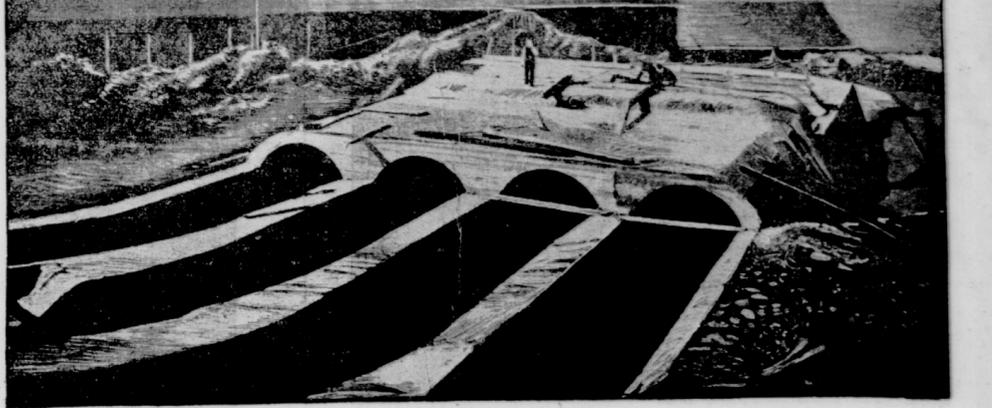


BUILDING A MIGHTY RESERVOIR TO HOLD SIXTY-THREE BILLION GALLONS OF WATER HAS ITS PICTURESQUE SIDE.



AT WORK ON THE GREAT DAM OF THE WACHUSETT BASIN.



OUTLETS AND SPILLWAY OF THE GREAT WACHUSETT BASIN.

IT WILL BE A LAKE. WACHUSETT BASIN TO COVER 4,195 ACRES.

WITH A CAPACITY OF SIXTY-THREE BILLION GALLONS TO SUPPLY BOSTON AND NEARBY TOWNS.

Riding from Worcester, Mass., to the town of Clinton by electric cars, one passes, and, if interested in big things, stops at the eastern side of the great Wachusett Basin of the metropolitan water system, the largest reservoir in the world and one of the most important works ever attempted by the commonwealth. Seven years ago the work was begun on this basin, which, when completed, will contain 63,000,000,000 gallons of water and will supply Boston and the towns within a ten mile radius of the State House. To-day the engineers are beginning to look forward to the time when the water will fill the hollow of 4,195 acres, and a splendid lake, eight and a half miles long and two miles wide, will take the place of the bare, dusty ground, where thousands of laborers and hundreds of horses have been at work so long.

situated along the river banks. Now there is nothing but bare earth, with now and then trees growing on the hillsides, which will be islands soon. Surveyors' marks stand like monuments, marking the death of communities. Villages, factories, homes, groves and fields, and even the surface of the ground, are gone, that Boston and her neighbors may have pure water and plenty of it. Nearly \$30,000,000 has been expended since the work began, and before it is finished the cost of this one reservoir, with its aqueduct, will not be less than \$60,000,000.

The basin occupies the broad valley of the Nashua River and lies partly in the towns of Boylston, West Boylston, Clinton and Sterling. The town of West Boylston has been the greatest sufferer from the wholesale taking of land by the Commonwealth. The village—the "centre," as it is called—lies in the lower part of the valley, a thriving factory town, with pleasant streets and well built houses. It has been entirely destroyed, so that to-day there is scarcely anything to mark the place. Mills, churches, schools, residences have all been torn down, and the ground on which they stood denuded of trees and stripped of all vegetable matter to the depth of two feet. West Boylston was one of the old villages of Central Massachusetts, and houses that had stood for centuries and from whose roofs had gone men to four wars have been demolished, and the people who were born there and heard their grandfathers tell stories of muster day on the common have been driven away to seek new homes. Among the last to go were two old women, one eighty-seven and the other ninety-three, whose parents and grandfathers had lived in the house from which they were driven. The Rev. Joseph Warren Cross, the oldest living graduate of Harvard College, who called West Boylston his home and preached in the Stone Congregational Church in the village for more than fifty years, was compelled to go away and to give up those things he held most dear, the central and most mysterious figure. Great and important as is the work and willing and able to pay as is the State, the people who have to give up their homes feel that there is a form of peace as horrible as war, and none are satisfied with the result of Boston's call for helping in the town of Clinton it was found that St. John's Catholic Cemetery lay below the level of the water and would have to be moved. A piece of land in another part of the town was taken and preparations made to have the bodies removed to the new cemetery. Here the commission struck a snag that came near delaying the work for months. Two factions arose in the parishes represented in the cemetery, and for some time there were internal bickerings and threats of litigation, until the Bishop of Springfield settled the matter. One side wished the commission to take charge of the removal of the bodies, and the other insisted that the work of changing the graves be done by the parishes. It was finally settled by a committee being selected by the parishes to assist the commission. The work of removal began with the work of excavation, and the workmen engaged in clearing the ground for the reservoir worked for a time surrounded by monuments and tombstones.

mill privileges on the streams revoked. The question of the disposition of the sewage of the towns of Clinton and Lancaster occupied much of the attention of the board, and land was taken in Lancaster and filter beds established and pipe lines built, and now these two towns have complete and as nearly perfect a system of sewage disposal as any large city away from the coast. In connection with this, it might be well to state that a year ago the Metropolitan Water Board was united with the Metropolitan Sewage Board, the two commissions becoming one. The relocation of the tracks of the Central Massachusetts Railroad was recently begun. Six miles of this track along the Nashua River through the centre of the basin, and when the water is let in, will be nearly one hundred feet below the surface of the ground. Surveys were made for the new line, and about three months ago work was begun along the line of the new location. Between seven and eight miles of track will be rebuilt, partly by the Commonwealth and partly by the Boston and Maine Railroad. The new stations will be made among one of the old ones. Of the highways that have been relocated and rebuilt, some were county roads, some owned by towns and some were private roadways. The new roads have all been constructed as State roads, carefully graded and macadamized, and in this one feature the region has been much benefited. Better drives than these will be when the basin is filled, can scarcely be imagined, with wooded hills on one side and a broad, clear lake on the other. In the town of Clinton it has been necessary to build two huge dikes with cutoffs to deflect the water of Stillwater River and various streams and ponds and to form protecting division lines in the reservoir itself. Roadways will be built along the top of these dikes to form short cuts across the reservoir. As has been already stated, the land to be flooded is being stripped of all vegetation. Trees have been cut down and the stumps removed. Brushland has been burned over and the debris taken away, and from the whole area of the basin the soil to a depth of two feet or more either has been removed or is being removed, so as to leave little possibility for contamination by decaying organic matter. An idea of the magnitude of the work alone can be gained when it is known that the water surface of the reservoir will be 4,195 acres, or 6,36 square miles. Not a tree, bush nor blade of grass is to be left to be covered by the water. For this part of the work negroes have been generally employed, with their accompaniment, mules. This is the first time this combination has been used to any extent in Massachusetts. The larger part of the laborers employed are Italian, however. The Wachusett Reservoir, when flooded, will contain 63,000,000,000 gallons of water. Its shore line, exclusive of islands, is 35.10 miles. The watershed covers an area of 118.23 square miles. In its construction four churches, four schools, six mills and 24 dwellings have been destroyed, and 1,721 persons driven from their homes. Six and fifty-six hundredths miles of railroad will be flooded and 12.2 miles of highway. This does not take into account the factories closed along the tributary streams, nor the changes necessary on account of consequential damages. The property owners within the limits of the basin have been reimbursed by the State in full for their land, and also those whose property has been actually taken for works outside the basin. Damages have been awarded to individuals throughout the entire area of the watershed, and the towns of Clinton, Boylston, West Boylston and Sterling have been awarded damages for injury done to business and on account of decreased tax value of property in the towns.

Besides Boston, the towns and cities included in the metropolitan system are Arlington, Chelsea, Everett, Malden, Medford, Newton, Quincy, Somerville, Hyde Park, Melrose, Revere, Watertown, Winthrop, Nahant and Swampscott. The cities of Brookline and Cambridge are within the ten mile limit, but are not included in the system. Big as the Wachusett Basin is and expensive as the work seems, this is only the beginning of a series of systems that will provide the cities of the entire State with pure water in time. As soon as this basin is completed, it is intended to begin work on another and a larger reservoir to supply the towns and cities in the central part of the State, and when that is done the western portion will receive attention.

an active canvass is being made among new members of the House. On the latter the Cannon supporters are depending for the basis of his strength. Among those who are conducting the campaign for Cannon the claim is made that he has a lead of about seventy votes pledged to him, which makes a formidable showing when it is considered that it is still early in the campaign and that it takes 104 votes to make a majority in the House. In Congress circles at Washington it is the opinion that the estimate of seventy for Cannon is a little too big, but it is conceded that he is in the lead. By some it is claimed that the West is not united in the support of the Illinois man, because Hull, of Iowa, is not for Cannon, although he will be guided by the decision of the majority of his delegation. Then, too, it is asserted that Indiana is divided on the Speakership question, though the party press in the Hoosier State is generally for Cannon. With the probabilities that the new year will open with a complicated situation later on when the contest is fairly on at the national capital, when Congress meets, the friends of "Uncle Joe" Cannon are sanguine of success.

TOPICS IN CHICAGO.

Chicago, Nov. 14.—Illinois Republican leaders are watching with more than close interest the struggle now going on for the Speakership of the next House of Representatives. At this distance from Washington and right in the stronghold of the campaign being made by Congressman Cannon, of the Danville district, it looks like a favorable race for "Uncle Joe." However, there are hints that the opposition to Mr. Cannon will be conducted on peculiar lines, involving the straining of the position he has so long held in the matter of appropriations of public moneys. It is at the coming session of Congress that the ordeal will be severest for "Uncle Joe." Members who have been opposed by him in previous sessions and are not committed to the support of any candidate for the Speakership will have the opportunity of their official lives to bring Mr. Cannon to terms on the question of appropriations for their districts, and, according to reports from the national capital, "they won't do a thing" to "Uncle Joe" if he is obdurate and refuses to yield. Every vote is figured on now to count for success or failure, and therein lies the onward move or crushed ambition of Mr. Cannon. Close watchers at Washington declare it is difficult for them to conjecture which will be the hardest for the Danville statesman to give up—the appropriations he has so steadfastly denied his colleagues or the votes that will elect him Speaker of the House. Surely it is a dilemma for Mr. Cannon, but it is a condition hugely enjoyed by the men to whom he meted out disappointment. Be the situation at Washington what it will, the Cannon boom is moving along at a rate that is gratifying to the friends and supporters of the Illinoisian in the West and Middle West, where

Cook County, of which Chicago is the county seat, has an official regarding whom little is known, except by the owners of vacant lots who pay taxes thereon. This otherwise obscure place holder manages to break into the newspapers once a year, and it is then that the general public becomes aware or is reminded of the existence of the "thistle detective." It is when he makes his annual report to the County Treasurer, detailing the year's hunt for the Canadian thistle in Cook County and the efforts to rid vacant lands of the pest. On his urging and notification the owners of unimproved property are moved to take steps to clear the premises belonging to them of the thistles. The means of doing so successfully are best known to the "detective," who is an expert in his line, and for his services the landowner is taxed a certain sum in addition to a monetary penalty to the County Treasurer so long as the nuisance exists. So, in compelling some landowners to comply with the law as well as getting after those who fail to do so, the "thistle detective" manages to get a good thing out of his little county job. From the report just made to the Treasurer it looks as if the thistle man will reap a big harvest of dollars, as, according to his estimate, there are some hundred thousand property owners with whom he is in official communication regarding the removal of the Canadian agricultural pest.

MRS. KATHERINE C. TINGLEY'S THEOSOPHIC RAJA YOGA SCHOOL, AT POINT LOMA, CAL., WILL NOW UNDERGO RIGID INVESTIGATION.

MRS. TINGLEY'S SCHOOL. BROUGHT BEFORE THE PUBLIC BY DETENTION OF CUBAN CHILDREN.

DIVERSE STATEMENTS OF THE WORK AT THE "RAJA YOGA" INSTITUTION AT SAN DIEGO, CAL.—HER BRANCH OF THE THEOSOPHY.

The attacks which have been made on Mrs. Katherine Tingley by various individuals and societies have brought to public attention another peculiar cult, her form of Theosophy, by some called Tingleyism. Past followers and believers in the Theosophic teachings of Mrs. Tingley have told on examination some startling things, have talked about their former priestess as the "Purple Mother," have borne witness of a dog named Spots, in which she said to be incarnated the spirit of a dead Theosophic leader, and have lifted the veil on other practices which seem incredible. On the other hand, the present disciples of Mrs. Tingley, together with many prominent citizens who have become interested in her teachings, have rallied to her support, and declare she is carrying on a grand educational work. They say in her defense that she has raised money for a school where children from all the different countries of the world may be taught all that is best in history and philosophy. Her pupils are also trained, they say, in many practical lines of work, such as drawing, wood carving, stenography and telegraphy, which might fit them for useful lives. The controversy has now been carried up to Secretary Shaw of the Treasury Department at Washington, and he is making a careful investigation of the teachings of Mrs. Tingley and her methods. Upon Secretary Shaw's decision, moreover, hangs the fate of eleven Cuban children who have been detained at Ellis Island, bound for Mrs. Tingley's institution, called by her the Raja Yoga School, and which is situated at Point Loma, near San Diego, Cal. Appeal was made to Secretary Shaw after the special board of inquiry at Ellis Island had unanimously decided to send the children back to Cuba. The detention of these eleven children was first instigated by the Society for the Prevention of Cruelty to Children of this city. They were in charge of Dr. Van Pelt, the woman superintendent of the San Diego school, and arrived here the latter part of last month. The society, however, had in its possession the testimony of many individuals who were formerly connected with Mrs. Tingley's school and her Theosophic work, and began its attack on the children reached port. According to Vernon M. Davis, president of the Society for the Prevention of Cruelty to Children, the people who are supplying Mrs. Tingley with money to carry out her ideas will soon find out that they are dupes, and then, withdrawing their aid, will leave the poor children as public charges. In the course of the hearing before the commission Mr. Davis brought out statements to the effect that Mrs. Tingley had not only established a school, but a sort of paradise on earth, where the children were taught to regard her as a superior being. According to these statements, Mrs. Tingley has at San Diego a "Lotus Farm," where the one hundred and fifty children inhabitants are termed "Lotus buds." These children have been brought for the most part from Cuba. The buildings of the farm, which were said to be of handsome architecture and expensive workmanship, have been built chiefly by private contributions. The whole society, of which Mrs. Tingley is the head, is termed the Universal Brotherhood. Within the brotherhood, however, there is an inner circle, called the Esoteric Society of Theosophy,



CHILDREN OF THE RAJA YOGA SCHOOL, READY FOR A SONG AFTER LESSONS ARE OVER.

Only those who were considered fit by Mrs. Tingley are admitted to the Society for the Prevention of Cruelty to Children. Thus, her former bookkeeper told her he had been admitted to the Esoteric Society of Theosophy, while his wife was detained. Every one joining this inner circle must give up all secular ties. Purple, according to this bookkeeper, was the color of highest honor, and only Mrs. Tingley wore purple. Thus she was called by some the "Purple Mother." Her gown was described as a Grecian affair, loose and flowing. White ranked next, and that of lowest rank was red. All of the Universal Brotherhood are accustomed to go to the Holy Hill to greet the sunrise. The Esoteric Society of Theosophy had still other rites, in which Mrs. Tingley was the central and most mysterious figure. These ceremonies are performed in what is called the Temple of Isis. According to some witnesses brought forward by Mr. Davis, husbands and wives are often separated by Mrs. Tingley, and their children taken from them to be cared for at the Raja Yoga school. Thus Henry J. Bohn, of Chicago, says that he was compelled to get his children back by habeas corpus proceedings, and found them when they were apparently stupefied by drugs. Dr. Mary E. Green, the grandmother of the children, tells, furthermore, that the children of the "Lotus Farm" sleep together in tents. Thus twenty boys and girls sleep in a single tent, she says, where their heads are tied together around their necks by a fourteen-year-old girl, who goes around at night from tent to tent. Green added: "My grandchildren were at the school six weeks. My daughter, Mrs. Bohn, was either crazed or hypnotized by Mrs. Tingley when she took them there. Katherine Tingley is regarded as a high priestess, and all her followers bow down and worship her. The farm is fenced in. All gates are guarded. Great secrecy prevails. Mrs. Tingley lives in sumptuous style from the subscriptions of my grandchildren, who were half-starved when they were rescued, while my daughter, who is their mother, had not batted them or eaten with them or ever put them to bed. Instead, she used to march past them once a day, barefoot and in a white robe, to greet the sunrise." More grotesque than anything else which has been said about the Point Loma school is the story of the favorite dog of Mrs. Tingley. It is a King Charles spaniel, and in cold weather wears a blanket. His name is Spots, because, as one of the former followers of the creed rarely colloquially expressed it, "he could spot a Theosophist at sight." The spaniel is said to have been given to Mrs. Tingley by William M. Judge. When Mr. Judge died his spirit is said to have entered into Spots. Accordingly, the dog is said to be regarded as an object of reverence at Point Loma, and Mrs. Tingley is once reported to have said of the spaniel: "I know that Mr. Judge's spirit is in Spots, directing this movement." In striking contrast with such statements is the defence of Mrs. Tingley by Dr. Van Pelt, the superintendent of her school. She calls the school international, where in time it is hoped to have mingling, she says, will bring out "broader ideas

and a higher type of manhood and womanhood." "The education," she adds, "is laid out on the broadest lines possible, and Mrs. Tingley is satisfied with nothing less than the best. The forcing system does not exist, for the whole aim is to draw out the child's powers and possibilities. In history, for instance, he is taught to know the cause and effect, the reason for the rise and fall of nations, and is not compelled to memorize facts. But I should be sorry for any one who could not discriminate between the serious and the grotesque statements which are a little dog made by some of our maligners, were it not that some regarded as intelligent have apparently made these statements seriously. There is, to be sure, a little dog at the Point named Spots—a great pet with everybody, and it is just possible that some may have been heard to say in fun (for even very earnest people may relax into baby talk) that Spots is very wise, and knows a good Theosophist at sight, or that he knows all that is being talked about, or that he is better than many people. But I should be sorry for any one who could not discriminate between the serious and the grotesque statements which are a little unnecessary, and as I said before, to the person of average intelligence it is unnecessary to deny them." "Mrs. Tingley holds that the best moral and intellectual results cannot be obtained without a sound physical basis, so it is considered a duty to guard and improve the children's health. It should be like to contradict the statement that they are allowed to go out improperly clothed. But I must remember that the climate of Southern California is very mild, and that it rarely rains there. The wonderful climate helps in this, but its effect is supplemented by careful attention to diet, by appropriate physical exercises and other means. Two physicians at least are always on call, in case of need." "Mrs. Tingley was first married in 1867 to R. H. Cook. Some years later he was about to sue for a divorce, when he was told she was dead. Both remarried. While living in this city, at No. 107 West Sixty-eighth-st., in 1882, Mrs. Tingley, according to Dr. H. H. Resettin, who lived next door, was known as a massucce and hypnotist.

ON THE PACIFIC COAST. RIDING CALIFORNIA OF TRUSTS—WILD REPORTS OF PLAGUE UNFOUNDED—MUCH BUSINESS ACTIVITY.

San Francisco, Nov. 14.—The decision of Judge Morrow, of the United States Circuit Court, is regarded here as practically putting an end to the Salt Trust, which has offered special contracts at \$12 a ton, and which advanced from dealers who suffered from exactions of the trust were so specific that Judge Morrow declared that all the companies, except the Imperial Salt Company, were acting illegally and in restraint of trade. He therefore made the temporary injunction against them permanent. The result will be to free California and all the country west of the Mississippi from the bondage of the Federal Salt Company. It is understood that United States District Attorney Marshall Woodworth will soon proceed against the Flour Trust, which has been more autocratic than the Salt Trust, and has reaped much richer profits. According to federal reports, something over two thousand people in Chinatown have died from bubonic plague in the last three years, and the National Convention of Boards of Health censures the San Francisco Board of Health for its failure to check the spread of the dangerous disease. The simple facts are that there has been no increase of disease in Chinatown, nor have there been any cases of genuine bubonic plague in San Francisco. Some of the ablest bacteriologists in the country live here and have examined the Chinese, who federal officers said, died from plague, but in every case these experts declared the disease bore only a resemblance to plague and was not contagious. Dr. S. M. Mouser was employed as official bacteriologist here for two years, yet he declares that in that time not a single case showed the fact that he was correct in that the disease never

became contagious in the Chinese quarter, where all conditions were favorable to its spread. The whole trouble grew out of a false diagnosis by a federal official, whose reports were accepted by his superior officers in Washington. General Chaffee was warmly welcomed on his return from Manila, but it is doubtful whether the veteran enjoyed this hospitality. At least one feature of it must have been burdensome. The Merchants' Association on Wednesday night gave a fine dinner for General Chaffee, but the chief entertainment furnished was a discussion whether the Geary-st. cable road franchise should revert to the city or should be renewed. General Chaffee's interest in this purely local topic could not have been keen. Heavy rains have fallen this week, bringing the rainfall to date much above the average. These rains have been well distributed, so that they have done the utmost good to farmers, stock growers and miners. The result has been to give a great impetus to business in all parts of the State, as nothing so stimulates activity as the removal of fear of a "dry winter." The complaint everywhere is of the lack of labor to carry out work both in the trades and in general farming. Much building is at a standstill in this city because of failure to secure carpenters, masons and other mechanics, although these artisans are receiving nearly double the usual scale of wages. Carpenters are getting as high as \$6 a day, bricklayers \$8, and in some cases plasterers have commanded \$12 a day. The number of persons who came to California in September and October on cheap colonist rates to investigate opportunities for settlement in this State was 24,135 by the Southern Pacific and probably 6,000 by the Santa Fe, although the latter company had not yet complied real bacillus of bubonic plague. And the proof turns. A large percentage of these people made careful inquiries, and many bought land for development and will remove their new homes

this winter. The colonist experiment was devised by E. O. McCormick, passenger traffic manager of the Southern Pacific, and it has proved a far greater success than the most sanguine expected. Pajaro Valley apples are now being sent by trainloads across the country to New-York for shipment to London. The favorite apple for this long shipment is the Newton pippin, which reaches in this sheltered Monterey County valley a size and flavor unequalled elsewhere on this coast.

The engagement of Dr. Jacques Loeb, biologist, to become head of the new department of physiology in the University of California, is an evidence of the desire of this institution to get the best men in their specialties. A new \$200,000 marine laboratory will be built at Berkeley with funds provided by Rudolph Spreckels. With the abundant marine life of the Pacific to draw from, Professor Loeb ought to be in an ideal position to carry out his researches.

ELECTRICITY IN MINES. POWER BROUGHT TO THE COMSTOCK LODGE THIRTY MILES.

In few industries has electricity been utilized to such advantage as in mining. Operations are there conducted, as a general thing, in a mountainous region, where the cost of fuel is exceptionally high, owing to the difficulties of transportation. If power be taken from the adjacent streams and be converted into electricity by dynamos, it can be transmitted economically for long distances and up grades that would be impassable to railways. One obstacle, no matter from what source power is obtained for many purposes, is the need of a mine. Drills must be driven into the rock, water pumped out, ore hoisted and ground, and other work done which calls for mechanical energy. One of the best illustrations of this modern practice is furnished by the mines of the famous Comstock Lode, in Nevada. That vein of gold and silver starts over at an angle of about 45 degrees from a vertical plane. Shafts sunk at different points in the neighborhood tapped it at depths varying from 1,000 to 3,500 feet. In the period between 1872 and 1882 one single company took out about \$120,000,000. The whole lode has yielded nearly \$500,000,000, most of that amount being produced in the decade just indicated. Owing to the exhaustion of the richer ores in 1882 and to trouble in property draining the mines, work was abandoned on them, and an accumulation of water permitted. Eventually the Suto Tunnel, four and a half miles long, opened up an outlet for much of this. Within a few years mining has been resumed, capitalists being satisfied with ores of lower value than those which created such a sensation in the decade just indicated. These ores are believed to be exceedingly abundant, and the mines are now worked at a reasonable profit. Some idea of the cost of power "here in the old days may be gathered from the fact that the ore was carted fifteen miles from mine to mill, and that the latter was run by water brought to it by a flume forty miles in length. To-day power is brought all the way to the mine from the Comstock River thirty miles off. At the generating station two 1,400-horsepower water wheels of the turbine type have been installed, and these drive separate dynamos. The turbines are automatically governed. Merely for transmission over the intervening country a pressure of 2,000 volts is employed. The current is generated at 500 volts raised by "step-up" transformers to the figure just named and reduced at the mines by "step-down" transformers to 40 volts. In the latter pressure that the various pumping, hoisting and air compressing motors are run. So cheap is the power thus supplied that work can be done far more economically than ever before. CORNSTALKS AND STRAW FOR FUEL. From the Springfield Republican. Edward Atkinson never lacks for an interesting suggestion regarding the possible economies of life, and he has now been heard from on the subject of fuel. Speaking before the Illinois Manufacturers' Association a day or two ago, he urged consideration of the use of cornstalks and straw as they when pressed to the density of hard oak, as they might. Such fuel, he declared, would be cheaper than coal at 5 cents a ton.