CONVICTS RELEASED.

Tennessee Stockades Burned and 350 Felons Freed.

The Prison Guards Overwhelmed by a Mob of Miners.

The Tennessee convicts employed in the mines of the Tenuessee Mining Company and the Knoxville Iron Company, at Briceville and Coal Creek, were liberated a few nights ago by the free miners, and the stockades in which the convicts were confined were

burned to the ground.

The guards in charge of the stockades saw that the free miners were in overwhelmning force and made no show of resistance, so that the raid was not attended with fighting

Not the least hint had been received at Briceville or Coal Creek that the miners intended any aggressive movement. Af-ter the courts had decided that the lease of the convicts was legal and the State authorities announced that the law would be upheld at all hazards, the Miners' Committee, which had represented the dis-satisfied elements since the July outbreaks and which had pledged their words that there would be no resort to violence, called a meeting of the miners, gave a full account of what had been done and disbanded.

They urged the miners to refrain from violence and accept the decree of the courts, depending on their power at the polls to correct the evil. This advice was taken, apparently in good part.

The first intimation that there was anything out of the common going on in the mining region came when it was discovered that the telegraph wires between Coal Creak and Offutts station and between Offutts and Cinton had been cut

Shortly afterward a series of signal fires were seen in various places among the mountains. Hardly had the signal fires been lighted when the miners began to gather at Briceville. They came in little parties from all the surrounding hamlets and settlements. Every man had his rifle, and many were armed with revolvers in addition.

Within an hour fully two thousand men had gathered in Briceville, and the advance was made on the convict stockade of the Tennessee Mining Company at that place. When the stockade was reached the lead-

ers of the mob called for the Warden and informed him that they had come to release the convicts and that if the guard resisted they would do so at their peril. While the leaders were parleying with the Warden another party of the rioters placed

a heavy charge of dynamite under a portion of the stockude and the conference at the gate we's terminated by an explosion which blew a great nole in the outer wall of the

This was the signal for a volley of rifle shots, but they were all fired in the air and

nobody was hurt. Hundreds of the rioters rushed into the breach, and in a few minutes the stockade was in their hands. Convicts and guards were ordered out at the point of the rifle,

and they came.
Then followed a scene almost indescribable. The convicts were wrought up into a state of intense excitement. As they came out of the breach in the walls of the stockade they were halted and each man was ordered to remove the striped convict uniforms. In its place he was given a suit of citizen's clothes, of which the miners had brought an immense quantity

As the convicts made the change of clothes they were headed for the North Carolina and Kentucky borders and ordered to leave at once. The guards were not interfered

After the stockade had been cleared of all places and it was soon enveloped in many places and it was soon enveloped in dames. A guard was left to see that no attempt was made to quench the flames, and the main body of rioters started for Coal Creek.

The work at Coal Creek was simply a Warden was called out and informed that the convicts were to be released. He saw that there was no chance for a successful resistance and surrendered. The convicts were marched out, their convict stripes changed for less conspicuous raiment a were told to leave the State as quickly as possible. They lost no time in doing so. Then the stockade was fired and destroyed. After the destruction of the stockade an attack was made by the liberated convicts on the company store, which is run by Cap-tain Chumiey, formerly superintendent of convicts. There was about \$1000 worth of goods in the store, consisting of a general stock. The convicts took as much of this as they could and destroyed the balance.

The total number of convicts released w

Of these 141 were at Briceville and 209 coal Creek, Trainmen who passed through the coal regions next day say that they saw large numbers of convicts making their way towards the Kentucky line. They marched along the roads in small parties openly, and do not appear to be in fear of

being arrested. Nothing was done looking to the re-arrest of the liberated men beyond notifying the Kentucky and North Carolina authorities of their escape and requesting them to be on the lookout for them

Governor Buchanan, offered a reward of \$5000 for the arrest and conviction of the Briceville mob.

More Convicts Freed.

The Tennessee mountaineers have fulfille! their threats. The last convict is gone from the Waldern's Range region. The stock-ades are destroyed. After freeing the con-victs at Briceville and Coal Creek, the mob of miners marched to the convict stockade at the Big Mountain mine, five miles north of Oliver Springs. There were 165 convicts confined there, all of whom were liberated. Thus all the Tennessee stockades are dis-mantled or burned, and more than 450 desperadoes roam the mountains and valleys of Northeastern Tennessee and Kentucky.

A SCORE KILLED.

Horritying Accident at the Big Anaconda Mine,

The worst mining accident of the year took place at the Anaconda mine, Butto City, Montana, a few mornings ago, when nineteen miners were killed on a cage coming

The cage had just come up 'No of miners leaving work, and nineteen oil 'started to descend in it. The rope had be... unwound but a couple of times from the sa. why revolving windlass when there was a sudden snap, and a cry of horror rose from the shaft in which the cage had but a moment before disappeared. The rope had broken and the cage, with its nineteen inmates, was precipitated to the bottom of the mine.

It was some little time before any assistance could be sent them. The shaft down which they had plunged to death was useless, and other ways of getting at the place where they had fallen were roundabout.

Fortunately there was some help for the

where they had fallen were roundabout.

Fortunately there was some help for the dead and dying men in the mine itself. A number of miners were at the bottom of the shaft waiting for the cage to take them out. Admist them, narrowly missing some, the cage dashed.

It broke, and before their eyes were the mangled bodies of the companions whom they were awaiting.

Of the nineteen who made the fearful ride, seventeen were dead, their forms crushed out of all semblance to those of human beings, while the two who were yet breathing had no hopes of recovery.

The Anaconda mine is the biggest in Montana. It employs 400 men and was reopened, after a long closing, October 53.

WORLD'S FAIR NOTES.

The agricultural society of France has decided to offer a number of premiums for the best French horses shown at the Fair. QUARITOR, the noted London book-dealer, intends to send to the Exposition an autograph letter of Christopher Columbus, for which he paid \$5000.

VIRGINIA'S building at the Exposition will be of the old colonial type, measuring 33x76 feet, two stories high and surrounded by a piazza 15 feet wide. Its cost will be \$20,000. The Art Palace on the Lake Front Park, which will be built by the Art Institute, assisted to the extent of \$200,000 by the Exposition Company, will cost about \$700,000

CALIFORNIA is the first State to respond to Chief Buchanan's request that each State contribute the trunks of three of its most characteristic trees, to be used in constructing a rustic colonnade for the Forestry building.

FLORIDA'S Exposition building will be a full-sized reproduction of Fort Marion, which was built at St. Augustine in 1620, and is believed to be the oldest building in the United States. It is of stone, and covers a space of about 150 feet square.

MRS. POTTER PALMER is to drive the last nail in the Woman's building. The lady managers of Montana, at the suggestion of Mrs. J. E. Richards, are having the nail made of ld, silver and copper. It will be forwarded to Chicago as soon as completed.

THE great imitation coast-line battleship, which is to constitute and contain the Government's naval exhibit, is in an advanced state of construction. It will be all inclosed before winter weather sets in, and all of the interior work will be completed by spring. THE Carriage Builders' National Associa-

tion, at its recent session in Cincinnati, appointed an influential committee to supervise the collection and preparation of a creditable exhibit of vehicles, and to cooperate with Chief Smith, of the Transportation Department.

THOMAS A. EDISON, the famous electric ian, has applied for 35,000 feet of space, or about one-seventh of all that the Electric building contains. "I have it from Mr. Ed-ison himself," said Chief John P. Barrett, "that his display at the Fair is to be the greatest achievement of his life."

THE nine lady managers resident in Chicago, called together by Mrs. Potter Palmer, have decided to established a model sanitary kitchen in the Woman's building at the Ex-position. An effort will be made by a spe cial entertainment or otherwise, to raise the \$4000 necessary for the purpose.

THE number of intending exhibitors who have applied for space at the Exposition reached 1623 on October 24. This is a much larger number than the Centennial had at a correspondingly early date. The number does not include any foreign applications, all of which are made to their respective na-

ONE acre of ground within the Horticultural building has been reserved for an orange grove from Florida and the same amount for a grove from California. These trees will be brought to Chicago next year and planted, so they will bear fruit while the Exposition is open. These two acres constitute two interior courts of the building.

THE LABOR WORLD.

THE K. of L. is expanding.

PARIS has 100,000 union men. HOLLAND has 40,000 union railroaders. STOVEMOLDERS are scarce in the West.

BALTIMORE, Ireland, has a fishing school. INDIANAPOLIS hasn't one non-union stone-

THE municipality runs Milan's Labor Ex-

AUSTRALIA has a Woman's Industrial

SARATOGA (Neb.) girls will not dance with Ir costs only fifteen cents a day to employ a washerwoman in Garnett, N. C.

THIRTY THOUSAND men are effected by the strike of the engineers in England. Union men are steadily gaint nition and increased wages in New York.

THE Austrian police have confiscated the report of the Brussels International Labor THE Emperor William, of Germany, has

bought two workingmen's houses as presents for deserving men. In the north of England 10,000 ship me-

chanics have gone on strike. The trouble grew out of a dispute about overtime. Boston masons', builders' and bricklayers' unions will establish evening schools for teaching regular apprentices in the science

of their trades. THE Laber Lyceum to be built by the labor organizations affiliated with the Central Labor Union, of Cieveland, Ohio, will cost \$75,000.

EUGENE WINCHET, of Dayton, Ohio, lets all working girls ride for half price on his street railway, which runs through the suburbs of the city.

Wages are so low in India that men may be hired for two dollars a month to do household work. A dollar is a great sum to them, and one meal a day the rule.

THE bakers in Poland are on strike against an order from the Russian Government to furnish bread at prices fixed by the latter to the starving people in the country districts. It has been calculated that the right hand of a good compositor in taking type from the frame to the stick while setting up 9000 ems in eight hours covers a distance of 36,000

THE Quarrymen's National Union this year has established the nine-hour day almost universally for four thousand members, and advanced wages two to ten per cent. for fifteen hundred members.

THE Bricklayers' National Union of Germany has at present 250 local unions, with about 20,000 members and \$97,000 in its treasury. The dues are forty cents per month, and the weekly benefit amounts to \$3.50.

ALCOHOL CONQUERED GOLD.

John F. Mines Dies in the Workhouse Blackwell's Island.

John F. Mines, better known as "Felix Oldboy," the name he wrote under, died a few days ago in the workhouse on Blackwell's Island, New York City, from alcoholism. Mr. Mines was born in Troy in 1836, was graduated from Trinity College, and from the General Theological Seminary, in New York City. Although ordained an Episcopal minister, he was all his life a journalist, and under the name of "Felix Oldboy" he was well known all over the country. Some time ago Mr. Mines, who was a confirmed drunkard, placed himself in the hands of Dr. Keeley, to be treated by the alleged "gold cure" method. Mr. Mines wrote many articles advocating this cure for drunkenness, his last appearing in the North American Review. Unfortunately for the reputation of this "cure," Mr. Mines was arrested for being drunk, and was sent to Blackwell's Island. When he arrived there he was taken with a fit, several of which followed in quick succession, from the last of which he died in the workhouse hospital. well's Island, New York City, from alcohol-

THE census of the Navajos of California shows the tribe to number 16, 102, while their neighbors, the Moquis, number 1800. Seventy scholars are in attendance at the agency school. The Navajos are a very rich tribe of Indians, owning over 1, 200,000 sheep, over 1,000,000 horses and ponies and over 10,000 cattle. They also have several thousand goats.

SABBATH SCHOOL.

INTERNATIONAL LESSON FOR NOVEMBER 15

Lesson Text: "Christ's Prayer For His Disciples," John xvii., 1-19 -Golden Text: Heb, vii., 25-Commentary.

1. "These words spake Jesus, and lifted up His eyes to Heaven and said, Father, the hour is come; glorify Thy Son, then Thy Son also may glorify Thee." These words—the words of chapters xiv., xv., xvi., which He had just spoken to them beginning with "Let not your heart be troubled," and closing with, "Be of good cheer." And now He turns to His Father for Himself and for them and for us. This is truly "the Lord's Prayer."

Prayer."

2. "As Thou hast given them power over all flesh that He should give eternal life to as many as Thou hast given Him." See how He acknowledges all things as given Him by the Father; here He speaks of power, and in verso 8 of the words which the Father gave Him. We are most like Him when we thus

glorify God.

3. "And this is Life Eternal, that they might know Thee, the only true God, and Jesus Christ, whom Thou hast sent." To know God is better than wisdom, or might, or riches, and is the only thing worth

4. "I have glorified Thee on the earth; I have finished the work which Thou gaveth Me to do." One of His last words on the cross was, "It is finished" (xix., 30). He here seems to anticipate that which would be fully accomplished. Because of this finished work God raised Him from the dead and gave Him glory (I Pet. i., 21). His life, death and resurrection completes the work of

atonement.
5. "And now, O Father, glorify Thou Me with Thine own Self, with the glory which I had with Thee before the world was." This is to me one of the simplest and strong-est proofs of the divinity of Christ. He here says that He has with the Father before the world was and shared His glory. Put with this John, i., 1-3, Col. i., 16, 17, Heb. i., 2, 8, and I fail to see how any one can doubt that Christ was God without most fearful perversion of the words of Scripture.

6. "I have manifested Thy name unto the men which Thou gavest Me out of the world. Thine they were and Thou gavest them Me. and they have kept Thy word." Jesus not manifest Himself but the Father. sought not His own glory, but the glory of the Father (chapter viii., 29, 50). Herevealed

the Father (chapter viii., 29, 50). Herevealed the Father to those whom the Father had given unto Him (chapter i., 18). And the highest testimony He could give of them was, "They have kept Thy word."

7. "Now they have known that all things whatsoever Thou hast given Me are of Thee." He had made it so plain to His disciples, both by words and deeds, that He only said what the Father told Him to say, and that all His works were simply the Father working through Him (chapters xii., 49; xiv., 19), that they could not but believe that He was sent of God, and that the invisible God, whom no man hath seen, nor can visible God, whom no man hath seen, nor can see, was manifest in Him (I Tim. vi., 16; iii, 16; John xiv., 9.

"For I have given unto them the words which Thou gavest Me; and they have re-ceived them, and have known surely that I ceived them, and have known surely that I came out from Thee, and they have believed that Thou didst send Me." How kindly in this prayer the Saviour passes by the unbelief of His disciples, making mention only of their faith. So in the letters to the churches in Rev. ii., iii., He first approves and commends all that He possibly can in each. We would be more like Jesus if we acted to withouters and were more ready to acted so with others, and were more ready to see, and speak well of, their good points rather than pick out their failures.

9. "I pray for them. I pray not for the world, but for them which Thou hast given Me; for they are Thine." Not only when on earth did He pray for His disciples (Luke xxii, 32), but now at the right hand of the Father He ever liveth to make intercession for us.

"And all Mine are Thine and Thine line; and I am glorified in them." He ghts to reassure us that we who believe in Him are not only His but the Father's not only the Father's gift to Him but His and the Father's together (chapter x., 29.) 11. "And now I am no more in the world, but these are in the world, and I come to thee." For thirty-three years He had been in the world, "God manifest in the flesh;" now He would be no longer visible person-ally, but only in the lives of His followers; and as He had revealed the Father, so in these mortal bodies He would have us reveal Him in words and deeds to a world that cannot see spiritual things.

"Holy Father, keep through Thine own name those whom Thou hast given Me, that they may be one, as we are." We are committed to Him who is able to keep us from falling (Jude 24), or as in the R. V., "Guard us from stumbling."

12. "While I was with them in the world I have the Try name." He provided for

kept them in Thy name." He provided for them in things temporal and spiritual, He taught them of heavenly things, He kept them from all barm, He gave them power over all the power of the enemy, He led them

in the right way.
13. "And now come I to Thee; and the 13. "And now come I to Thee; and thet, things I speak in the world, that they might have My joy fulfilled in themselves." In chapter xv., 11, He desired them to be full of joy, also in xvi., 24; yet in xvi., 33, He assures them of tribulation, but exhorts them to be of good cheer. Paul learned to glory in tribulation and infirmities (Rom. v., 3; II Cor. xii., 9, 10), but his arm was to show forth the power of Christ, and his comfort was the glory to be revealed (Rom. viii.,

(18).

14. "I have given them Thy word, and the world hath hated them, because they are not of the world, even as I am not of the world." It is His word received that gives us the new birth to begin with (I Pet. i., 23; Jas. i., 18), and as we continue to receive and eat His word we are brought into ever increasing opposition to the world.

15. "I pray not that Thou shouldst take them out of the world, but that Thou shouldst keep them from the evil." In I John v., 19. R. V., it is written that the whole world lieth in the evil one. Our position then is in the world, not of the world, kept by the power of God from the evil one. Our part is to put on and constantly wear the whole armor of God that thus we stand against the wiles of the devil (Eph. vi., 11, against the wiles of the devil (Eph. vi., 11,

18).

16. "They are not of the world, even as I am not of the world." It is very manifest that Christ was not of the world, and He was cordially hated by the world. But conwas cordially hated by the world, and He sider for a moment who it was that so hated Christ and you will see that it was not the world as we generally understand it, but the religious people who prided themselves on their righteousness, and whom Jesus called the world and the children of the devil (John viii., 44).

viii., 44).

17. "Sancify them through Thy truth;
Thy word is truth." That which will cleanse us and separate us from this present evil world is the word of God dweiling in us

18. "As Thou hast sent Me into the world." even so have I also sent them into the world."
He told them in chapter xv., 9, that as the
Father loved Him so He loved them, but now
He adds that as the Father sent Him so He

sends them.

19. "And for their sakes I sanctify Myself

19. "And for their sakes I sanctified through 19. "And for their sakes I sanctify Myself that they also might be sanctified through the truth." He was sanctified or set apart to be ever about His Father's business, to do His Father's will, to always please His Father, and to make atonement for the sins of the world. In all but the last we may be like Him, and in reference to the last we may lay down or pour out our lives in making that atonement known to others. To this end He cries, "Whom shall I send and who will go for us?" Let each one say, "Here am I, send me" (Isa. vi., 8).—Lesson Helper.

Times are improving in Honduras. The pidemic of smallpox which recently pre-railed there is over.

THE FARM AND GARDEN.

WINTERING SHEEP.

The question that every flockmaster should ask himself at this season is whether all his sheep will pay for wintering. If not, a little grain while there is fresh grass for the sheep to eat will help it for the butcher; but if extra feeding is postponed until only dry hay can be given, the sheep becomes costive and soon is worth nothing except for its pelt, and that not very good .- Boston Cultivator.

HOW TO DIVIDE YOUR HERD.

A prominent authority in Eugland on butter and cheese making says that the dairy farmer, no matter of what country he may be located, to be successful should divide his herd so as during the summer season to make fine cheese, and during the fall and winter to produce milk for sale in city markets, or to be made up in fine butter, as in this way the product is more equalized the year through. The same authority also advises the dairy farmer not to keep a cow that will not average a butter yield of two pounds per day when her milk is manufactured into butter .- American Dairyman.

TARRED PAPER FOR ROOFING.

In using tarred felt for roofing the poultry-house, it is important that a coating of gas-tar, or some such paint, be applied as soon as the paper is put on. This is a matter frequently neglected, and the consequence is that the paper is more liable to be injured by strong winds. The gas-tar should be applied every six months until the roof is two years old. After that time it will be a thick roof, and as hard as tin, lasting for many years, and effectually keeping out cold and dampness. It only requires a little extra care for the first two years, when it can be left to do service, and it will prove to be as cheap and durable as any roof that can be made. - Farm and Fire-

HOW AN ICEHOUSE IS MADE.

To make an icehouse, there are the following requisite; First, a dry and air-tight foundation; second, air-tight walls: third, an ample thickness of some porous non-conductor, and last, a complete circulation of air over the ice. The foundation should be in dry ground, and is best partly under ground. The walls are double and should have roofing paper between the boards of the outer wall, and a foot between, filled with dry sawdust. The roof must be tight, and the gables may be left open or have doors in them to afford thorough ventilation, by which the covering of the ice on the top is kept cool. In packing the rials, and get the reply in the crops pro-ice it will lie most closely if it is cut in duced. The chief use of fertilizers is to regular blocks that will match together; sixteen by twenty-four inches is a good size, as three of the blocks will lie across of the soil and of the manures produced two of them when crossed. All the crevices between the blocks of ice should be filled with the dust and small frag- more is needed. It is not good economy ments of ice to close the cracks .- New to pay high prices for materials which York Times.

NITROGEN FOR WHEAT.

In experiments made at the Indiana station to find the form of nitrogen best work that these experiment stations have adapted to wheat, and further, if there done has been to analyze these various was any advantage in fractional applications of the different forms, nitrogen was applied to every alternate plat, so that each plat that received nitrogen was compared with a plat on each side of it that received no nitrogen. The plats were forty-nine feet four inches by four feet. In all the same amount of nitrogen was applied to each plat receiving nitrogen.

On certain plats the nitrogen was all applied in the fall, on others one-half was applied in the fall and one-half at the opening of spring, and on others one-third in the fall, one-third April 15 and one-third May 18, when the heads were just appearing. The results showed that in no case was any marked advantage derived from fractional applications, while in the case of the ammonia compounds a decided advantage arose from

making the full application in the fall. Nitrate of soda gave a gain of 98.4 per cent. of grain and 105.5 per cent. of straw. Sulphate of ammonia gave a gain of 64.6 per cent. of grain and 73.8 per cent. of straw, while dried blood gave a gain of 54.4 per cent. of grain and 6.60 per cent. of straw. From the fact that the applications of nitrate in one lot in the fall gave as good results as those in three fractions, it is inferred that there is really not so much danger of loss of nitrates as many authorities would lead us to believe. - New York

A SYMPOSIUM ON DEHORNING.

The Orange County Farmer has made up a symposium of notes about the effects of dehorning cows. A writer in the Jersey Bulletin is fully persuaded that a mooley bull can kill a man as easily as a horned one, the only advantage in his favor being that he will not so badly disfigure the corpse. Does he think the Spaniards would enjoy a bull fight with the horns sawed off? That the mooley bull or cow can hit a hard blow with their heads is true, but as to being dangerous when any reasonable amount of caution is used, we cannot see it. Again, an English authority says the highest English courts have unanimously declared dehorning to be cruel and illegal. The Scotch judges affirm that no cruelty need be involved. Again, a Connecticut farmer while crossing a pasture went out of his way to pat a "gentle" bull as had been his amiable but indiscreet custom. He was charged upon by the treacherous beast and only rescued from a horrible death by the timely arrival of muscular neighbors who happened to witness the danger. We remember old Mr. Philip Swigert tried this with his fine Jersey bull that knocked him down, put his horns on each side of his body and pushed him down the hill, the grass being nicely frosted. When both of them reached a large log Mr. Swigert thought his time had come, but he whipped out a large po et knife and cut the bull's

Waldo F. Brown romarks that he is promises to become nopular.

of the opinion that in ten years from now, or perhaps less, a herd of cattle with horns will be as hard to find as a herd of mooleys has been in the past. The practice of dehorning is growing in favor, and he has yet to find the man who has dehorned a herd who is not pleased with the results, and Mr. Brown might have added further that such a man is not only pleased, but continues to practice it.

From the New York Tribune still another item is taken to the effect that having referred to the peacefulness and sociability of polled cattle he says: But put one horned cow into the pasture with the polls and she spoils it all. If she sees the polls enjoying mutual protection she will scatter their phalanx, if to do it she has to go across a fifty-acre field with the thermometer at 100 degrees, Fahrenheit. Could anyone ask better arguments in favor of taking off the horns.

EXPERIMENTS WITH FERTILIZERS.

Farmers in the older States are spending millions of dollars annually for commercial fertilizers. In this country, as in Europe, they have become an absolute necessity on worn-out soils; but to make them profitable it is necessary that they should fit the wants of the soil and crops for which they are used. If a farmer buys potash for land which abounds in potash but needs phosphoric acid, he of course losses. The fundamental principle in the use of commercial fertilizers is to select those materials which supply in the best forms and at the lowest cost the plant food which the crop needs and the soil fails to furnish.

In order to enable farmers to find out the wants of their own soils and the best way of supplying them, and at the same time to get light upon the properties of soils in different sections of the country, a number of experiment stations are introducing soil tests with fertilizers, which are largely conducted both by the stations and also by individual farmers on their own farms. Of course many of the experiments are failures, but many practical men who have engaged in this work have declared that they have thus learned a great deal which is practically useful and highly instructive.

The results of these tests in general show that "soils vary greatly in their capabilities of supplying food to crops. Different ingredients are deficient in different soils. The best way to learn what materials are proper in any given case is by observation and experiment. The rational method for determining what ingredients of plant food a soil fails to furnish in abundance, and how these unfurnished materials can be most economically supplied, is to put the question to the soil with different fertilizing matesupply plant food. It is good farming to make the most of the natural resources on the farm, and to depend upon artificial fertilizers only to furnish what the soil itself may yield, but it is good economy to supply the lacking ones in the cheapest way."

Probably the most valuable practical mmercial fertilizers which are offered for sale by manufacturers. In some of the States, in New Jersey, for instance, the fertilizers are analyzed, and the qualities of chemicals found in each sample compared with what the manufacturer claimed that the composition contained. So as to make this perfectly plain, the money value of the chemicals found in each sample is noted, and compared with the price charged by the manufacturer. Some startling results have been shown. One fertilizer selling, say, at \$25 per ton would be found to have a value of \$28; another, selling at \$40 a ton, would be found to be worth only \$15; and in one instance I recall the manufacturer charged \$43 a ton for his complete fertilizer, and the chemist found that its actual value was only \$2.50. Bulletins like these have certainly done great good, for they have warned farmers from buying inferior chemicals, and they have compelled manufacturers to keep their compositions up to the advertised standard. When there is more universal education among the farmers it will only be necessary to express the values of fertilizers in chemical terms. We have the authority of the United States Agricultural Department for the statment that in the States where experiment stations have long been established the greater number of the farmers now need nothing more than these chemical terms to guide them in selecting the special fertilizers needed in given cases .- Harper's Weekly.

FARM AND GARDEN NOTES. Keep enough fowls to buy the

A yearling grapevine is best for setting, as a rule. A good hen will lay twice her weight

in eggs a year. Corn and cornmeal are the best fattening foods for fowls.

Barley and wheat fed alternately make a good egg-producing ration. When grain is fed to poultry throw on a litter and partly cover it up.

Close to large cities broilers bring in more money than anything else. On the farm, at least, the medium-

sized poultry breeds are the best. A cooked mixture of the table scraps make a good morning ration for the fowls. Popular gardening commends for low

spots the common elder as a summer Geese are not only valuable as meat producers but should annually produce

a pound of feathers each. Too much salt or salty food at one time often proves injurious to poratry; a small quantity is beneficial.

Meteor, the new hybrid tea rose, has the dark crimson color of the Jacqueminot. The flower is fragrant and

SCIENTIFIC AND INDUSTRIAL.

Germany leads in paper-mills. Coffee mil's are run by electricity. Instantaneous photographs show lip

movements. The experiment is about to be tried in Chicago of running double-decked street cars.

A street railway system, to be operated by compressed air, is to be inaugurated in Leavenworth, Kan. The power will also be applied to factories. The phonograph has been applied to

the telephone, so that any conversation coming over the wires during the day may be readily reproduced. Phosphorus is now being made by decomposing a mixture of acid phos-phates and carbon by the heat of an

electric arc within the mass. The latest innovation in car decoration is a new material called "silichrome." It can be used also for depot

or other interior decoration. On the eastern frontier of the "Dark Continent" coal is so plentiful that by lifting a shovelful of clay off any particu-lar spot it may be reached. But there

is no means of transporting it to market. The range of naval guns is roughly one mile for every inch of calibre for guns less than ten inches, but last year a 9.2 inch breech-loading rifle attained a range of twelve miles. The pneumatic gun has fired a dummy shell two miles

and a half. It is said that the local steam trains between St. Paul and Minneapolis have all been taken off, being unable to compete with the electric road, which is running trips every eight minutes, and is expected soon to change to five minute

schedule. About twice as much energy is required to stop a moving object as to start it. In order to relieve its horses of a great deal of work, the London General Omnibus Company has adopted an ingenious device by which springs are wound up when the omnibus stops. The amount of energy which is thus stored up in the springs is utilized for starting the

vehicle again. A smokeless powder has been prepared at the Newport (R. I.) Torpedo Station which is credited with having given a rifle bullet the astounding velocity of 2860 feet per second. Moreover, it is stated that at a distance of 500 yards the report of the gun was not heard nor was any smoke visible. Gun cotton pulp is reported to be the base of the powder, but the other ingredients and their ma-

nipulation are a Government secret. A lake has a wonderfully tempering effect on the climate. Thus, according to M. Forel, the quantity of heat accumulated in the Lake of Geneva, Switzerland, during the summer of 1889 was equal to that given off by the combustion of 31,000,000 tons of coal, or the amount carried by a coal train 1120 miles in length. The greater part of the heat is discharged into the air of the valley during the cold season, thus producing a milder temperature in autumn and win-

Dr. Brown-Sequard in one of his lectures dwells with great emphasis on the importance of general knowledge in the matter of checking coughing and sneez-He states that coughing can be stopped by pressing the nerves of the lips in the neighborhood of the nose, and sneezing may be stopped the same way. Pressing in the neighborhood of the ear, or right in front of the ear, may stop coughing. It is so also of hiccough ing, but much less so than for sneezing or coughing. Pressing very hard on the roof of the mouth is also a means of arresting a cough, and the will itself is often found to be a wonderful preventive.

A Church Built of Coral.

The Seychellas Islands, which are supposed by many to be the site of the Eden of the Old Testament history, form an archipelago of 114 Islands, and are situated about 1400 miles east of Aden, and 1000 miles from Zanzibar. They rise steeply out of the sea, culminating in the Isle of Mahe, which is about 3000 feef above the level of the ocean, and is nearly the centre of the group. All these islands are of coral growth. The beaches which surround them are the most beautiful in the world, and are of white calcereous sands inclosed in coral reefs of the most subtile and varied structure. The reefs form a sort of wall around

here and there light-tinted rainbows of the most exquisite shades. The houses are built of a species of massive coral hewn into square blocks, which glisten like white marble and show themselves to the utmost advantage in the various tinted green of the thick tropical palms, whose immense fern-like

the island, and when the sun's rays fall

slanting on the sands the shore reflects

leaves give pleasant and much needed shade. The palms grow as high as 100 feet and more, overtopping both the houses and the coral-built church. They line the seashore and cover the mountains, forming in many places extensive forests .- Boston Globe.

Bacon Adjourns a Legislature.

It is related that one winter when the Kentucky Legislature was in a dead-lock and had passed a sleepless night in session, the morning found them still in an obstinate and ugly mood. All efforts to adjourn were severely put down. Soon after the breakfast hour arrived a member from the Big Sandy country went to one of the fire-places in the ancient hall and laid on the hickory coals a piece of bacon that he had found in a pocket sandwich. The appetizing odor gradually filled the room; the sizzling was a cheerful sound suggesting home, case and comfort. The members began to stir confusedly in their chairs. The hostile sides looked at each other sheepishly and wistfully. They couldn't help smiling, and at last broke into a laugh An adjournment was moved by several and carried unanimously. They say politics is swayed by phrases, but a bit of Kentucky bacon did the business this time.—Gincinnati Times-Star.