

# How Pennsylvania Coal Miners Work and Live.

**M**OST people going for the first time into the region of the great anthracite mines would at once put the mine workers and their families in a class apart from the ordinary human beings, writes Paul Latzke, in the Detroit Free Press. The newspaper accounts have paved the way for this, and the appearance of the men and boys in their working outfit clinches the impression. No other body of laborers in the world carry such strong external evidences of their vocation. From the top of their heads, where their mining lamps flare from the peaks of their queer shaped caps, to their feet, shod with great, grimy, thick-soled, clamping boots, the mine-workers bear the obtrusive stamp of their trade. They look uncanny, fierce. Take the most mild mannered and inoffensive little man that lives, clothe him in the miners' regalia, let him hammer for eight or ten hours underground, and he will come up a fearsome object. The most courageous woman from the outside world would run from such a man at the least demonstration. Should she unexpectedly meet him at dark on a lonely road, having never seen a miner before, she would probably have an attack of hysteria.

The faces of the men are hard and seamed and sallow, and, thick with coal dust, they are almost less than human to the unaccustomed gaze. Their eyes are outlined with crows' feet, no matter how young they may be, and they have a peculiar squinting look, due to their constant working in the half gloom of the coal tunnels. It is recorded of some of the mules that pull coal cars in the mines, that, having worked for years under ground without once coming up, they have gone instantly blind, on being exposed to the daylight. In a measure it is so with the men and boys who spend their working hours day after day underground. The daylight gives them an uncomfortable sensation, and they acquire the habit of screwing up their eyes that finally affects all the muscles of the face.

It is owing to these strongly marked peculiarities that the mine workers are put down at first by newspaper correspondents and writers in the district as something apart. Even the trained observer requires some time to accustom himself to their striking appearance and to realize that after all these men are like other men, and that their women, though they have absorbed many of the characteristics of the men, are like other women. It is not until he has spent a little time among the miners that he comes to regard them as ordinary workmen. On a Sunday or holiday with the grime washed off their faces, their mining lamps hung away, their working clothes removed, the men look an entirely different lot of human beings. Then it is only by their crows' feet



A TYPICAL BREAKER IN THE COAL MINING REGIONS.

There was a hazy story that an unknown operator had once paid the family of an unknown driver boy, who was killed, \$75. But this case could not be traced within the time at the ordinary man's disposal. Most of the operators make some sort of reparation by furnishing special employment about the works to the men crippled in their employ, and where the father is killed a place is generally found for the boys if there are any in the family. But such a thing as a cash settlement is never dreamed of.

The little chance that the miners had in this direction was skillfully taken from them by a piece of legislation that was passed. "In the interest of miners" and that was hailed with joy by the men at that time. This was the creation of county examining boards, to insure miners' licenses. Without such license no man can mine coal. The men foolishly thought that this would protect them from unskilled competition, and especially from the competition of the foreigners that were pouring into the region. They soon found, however, that the protection didn't protect. The county boards are paid a fee for each

and the paleness of their skins, due to their underground life, that they are to be recognized. The first time I ever saw a considerable body of the miners together was a Sunday mass meeting before the big strike was called. I was amazed at the unlikeness to their pictured appearance. For all that any one could have told the mass meeting might have been at Cooper Union in New York. The only difference was that most of the men—and women, too, for there were lots of women in the crowd—were much better dressed than the crowd that



A GROUP OF BREAKER BOYS AT THE MOUTH OF A COLLIERY INCLINE.

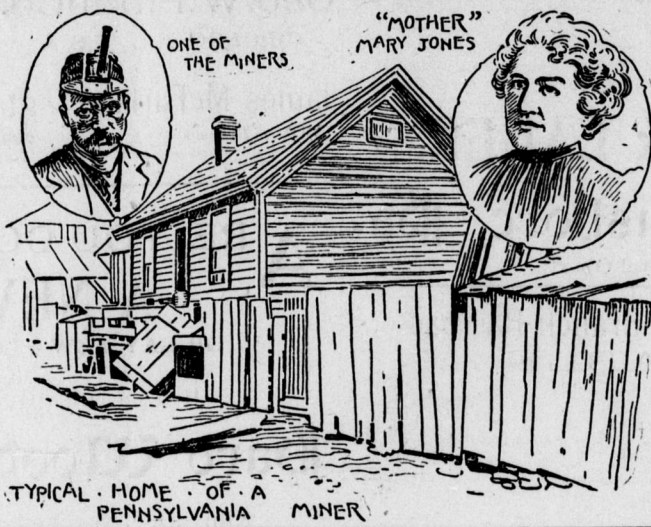
turn out at Cooper Union mass meetings. If the miners and mine laborers were engaged in work of an ordinary character, no one would think of putting

license they issue. Naturally county politicians are not going to work against their own politics by refusing licenses to men prepared to pay for the luxury. So the "license" has de-

generated into a farce, in so far as it serves as a protection against competition, and danger from the presence of poor workmen. But for the operating companies the measure has proved a great thing. By employing only "licensed" miners they are released legally from all responsibility for accidents. If a miner is buried under tons of coal and rock when he is at work, the fault is his own. If the laborer working at his side is also killed, the laborer's relatives may look to the family of the "licensed" miner for damages, but not to the operator. If there is an explosion of gas, the miner in whose chamber it occurs is the responsible party.

The operator hired him on the strength of his license, the possession of which presupposes that the man knows all about gas, and how to get away from the chambers where it lies before it accumulates in dangerous quantities.

The "fire boss" who inspects the mine every morning for gas on behalf of



TYPICAL HOME OF A PENNSYLVANIA MINER.

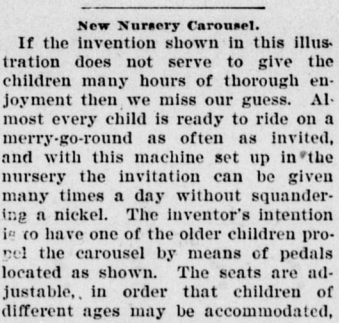
ment that he is underground. And so shrewdly have the operators managed that the financial penalty for an accident never falls on them. In almost any other pursuit in which an employe is killed his family has a chance of claiming damages. In the coal mines no one ever dreams of putting in such a claim as a legal right. Many diligent inquiries I made to find a case where a coal operator had been mulcted in damages, for injury and loss of life, but none could be found.

the operator warns the miners as they go in when gas may be expected and it is up to the miners to avoid explosions. This is what the "license" has done for the men.

"Mother" Mary Jones, "queen of the mines" and the idol of the miners, occupies a unique place in the world of labor. This kind-hearted, philanthropic woman is so loved by the rough delvers of the coal mines in the anthracite regions that with them her word is tantamount to law. Mrs. Jones is fifty-six years old, silver-haired and beautiful. Her voice has been sweetly eloquent in behalf of the workers whose cause she has adopted, and her appeals have won unstinted sympathy for her simple, hard-laboring friends. She lives at Wilkesbarre.

New Nursery Carousel.

If the invention shown in this illustration does not serve to give the children many hours of thorough enjoyment then we miss our guess. Almost every child is ready to ride on a merry-go-round as often as invited, and with this machine set up in the nursery the invitation can be given many times a day without squandering a nickel. The inventor's intention is to have one of the older children propel the carousel by means of pedals located as shown. The seats are adjustable, in order that children of different ages may be accommodated,



'DOMESTIC' MERRY-GO-ROUND.

and the baskets were for the babies. The vertical post is pivoted in standards secured to the ceiling and floor, and the horizontal arms are rigidly attached to this central post. The pedal shaft is connected to a shaft parallel to the supporting arm by a chain or cord running over the pulleys, and power is thus transmitted from the pedals to the inner end of the shaft, where a gear wheel meshes with a toothed disk attached to the standard, the revolution of the shaft driving the machine around.

High Lights.

Weak coffee often nerves a man sufficiently not to tip the waiter.

Other people's blunders either educate us or make us more conceited.

Good luck is simply having the agility to get on a car that is going your way.

The cheerful life is like all other entertainments; we have to seek it out and pay to get in.

We like the people who don't put on too much style and the people who don't put on too little.

When we try to blame other people for our mistakes we usually get hold of the wrong person.

Polite people are those who listen to us while we talk about something they have no earthly interest in.

It is well occasionally to put yourself in the other man's place, even if you feel yourself too big to be a good fit.—Chicago Record.

In the private schools of China a teacher is paid about one-half penny a day for each pupil.

## SILK FROM THE SPIDER.

A Beautiful Golden Thread Taken From Madagascar Insects.

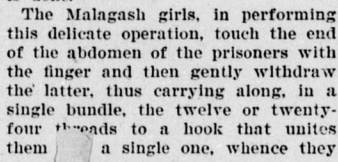
A French writer, who recently paid a visit to Tananarive, on the Island of Madagascar where the web of the spider is utilized to produce silk, secured some very interesting photographs of the operation, cuts from which are shown herewith. The insects are brought from the country in light baskets by Malagash women on the day upon which the silk is to be reeled, and placed in a frame in groups of one or two dozen. It is important not to mutilate or wound them during the operation, since they are capable of being submitted to four or five successive reelings in a month, representing about four thousand yards of thread. At the School of Tananarive the idea has occurred to place the spiders in what are called "gullotines," the crescents of which hold them between the abdomen and corselet. Their legs are turned back upon the corselet and their abdomen emerges from the side on which the unwinding and twisting of the thread is done.



SILK SPIDER IN THE GULLOTINE.

The Malagash girls, in performing this delicate operation, touch the end of the abdomen of the prisoners with the finger and then gently withdraw the latter, thus carrying along, in a single bundle, the twelve or twenty-four threads to a hook that unites them to a single one, whence they afterward start for the bobbin upon which they are to be wound.

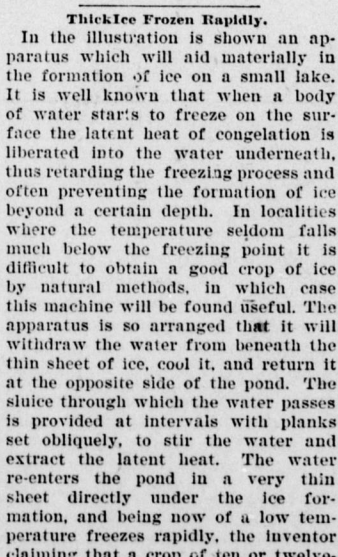
The spiders thus undergo a complete reeling without resistance, and when they are "empty" they are replaced by others. Those which have been operated upon are placed for convalescence in a "park" constructed for the purpose and consisting of bamboo planted in the ground and connected by strings so as to form trellises. After a few days' rest in these they are taken out in order to be submitted to another reeling. The silk is of a wonderful golden color.



REELING THE SPIDER THREAD.

Thick Ice Frozen Rapidly.

In the illustration is shown an apparatus which will aid materially in the formation of ice on a small lake. It is well known that when a body of water starts to freeze on the surface the latent heat of congelation is liberated into the water underneath, thus retarding the freezing process and often preventing the formation of ice beyond a certain depth. In localities where the temperature seldom falls much below the freezing point it is difficult to obtain a good crop of ice by natural methods, in which case this machine will be found useful. The apparatus is so arranged that it will withdraw the water from beneath the thin sheet of ice, cool it, and return it at the opposite side of the pond. The sluice through which the water passes is provided at intervals with planks set obliquely, to stir the water and extract the latent heat. The water re-enters the pond in a very thin sheet directly under the ice formation, and being now of a low temperature freezes rapidly, the inventor claiming that a crop of ten or twelve



FACILITATING THE FORMATION OF ICE.

inch ice can be harvested several times a year with the aid of the apparatus. In the cut an endless chain elevator is shown in the act of feeding the waste ice into the returning stream of water at the rear of the dam, thus further aiding in the cooling process.

Drummond Castle.

Drummond Castle is one of the finest and most picturesque country seats in Great Britain. The house, the oldest part of which dates from 1491, was rebuilt during the last century in excellent taste, and it contains a fine collection of family and historical portraits. The terrace and gardens, described by Mr. Charles Grenville as "fabulous" were originally laid out by John, Earl of Perth, who died in 1692, and they extend over ten acres, and comprise the best features of the French, Dutch and Italian styles. The castle is approached by a magnificent avenue of beeches and limes.—London Truth.



FOR FARM AND GARDEN.

Harvesting Onions.

It is the general custom to allow onion tops to die down of themselves before harvesting. Some growers bend them to the ground, but there is really no advantage in this and simply makes extra work. After the tops have thoroughly cured, or earlier if necessary, the onions may be dug, sorted and dried ready for market or for winter storage.

Keeping Hay in the Barn.

Hay stored in the barn will keep in much better condition than when put up in stacks. It is almost impossible to escape loss by exposure in stacks, although a large proportion of the hay intended for early use is kept in that manner. Damaged hay will be wasted by the animals, and there is also a loss of the constituent elements of the hay when exposed.

Washing Seed Wheat.

An experienced grain grower says: "Take a common washtub about two-thirds full of water, and pour into it half a bushel of wheat, and after stirring with a stick skim or pour off what rises on the water, taking care not to let the good grain run out; then empty into a basket or some vessel that will retain the wheat, and drain off the water; put it on a clean floor and sift or sprinkle onto it about a peck of dry ashes, stirring it over thoroughly so as to cover all the grains with the ashes, and setting the whole quantity to be sown in the same way.

"After it has lain a few hours it will be ready for sowing. It has proved a sure preventive in every case of trial with me, but when it has been omitted there has been plenty of smutty grain."

Raising Squabs.

Nothing is nicer for an invalid or a little child's appetite than a nice fat young pigeon, especially in cold winter time, when young chickens are scarce, and you are not convenient to markets where such things can be purchased.

In the state of Maine where select varieties of pigeons are raised, superior young birds bring as high as 20 or 30 cents at five weeks old in scarce times. They are shipped with feathers on, the same as game birds, and are killed by bleeding in the mouth.

Pigeons are extremely prolific in the South, and if properly housed, watered and fed, they are easily raised. Raising squabs might be made a valuable crop, if proper pains is taken. Without proper attention nothing ever yields a prolific revenue in money.

The Use of Water in Churning.

If the milk has been properly managed and the cream kept 24 to 36 hours at a temperature of 60 degrees until it is slightly acid, no addition of water will be required, as a rule. The butter should come in about 30 minutes. The normal temperature for churning cream is 60 to 62 degrees, but this may vary with the weather. In winter 65 or 70 degrees may be permitted and in hot weather 55 degrees may be right. In case of difficulty, in either direction, water, cold or warmed, as the condition of the cream may need, may be added to the cream in the churn to remove the trouble. When the cream is too sour and is thick and adhesive, and foams in the churn, the addition of water is sufficient to obviate the impediment to the churning, by thinning the mass and reducing its viscosity.

The Depth to Plow.

A man said to the writer the other day that farmers plow too deep. This was news to us. We have often said farmers plow too much, but we have the first man to find who plows too deep to suit us. It can be done, perhaps, but very few, to our notion, plow too deep. This man contends that four inches is deep enough to plow in this country. He finds this about right on his farm. He may have the right idea so far as his farm is concerned, for he keeps 200 or more sheep on half as many acres and feeds them all his farm produces and some besides. In this way the upper four inches of his soil are kept rich and productive. But if he had no sheep and had only a half dozen head of cattle, 30 to 40 hogs and four horses and would raise grain and hay for sale he would, in a few years, go below the four inches to find another farm to wear out, just as the rest of us are doing. We are wearing out from six to eight inches by turning one side of it up this year and farming it and then next year turn up the other side and so on until a poor man owns his poor farm or a partnership is formed with the banker through the sheriff acting as middleman in making the conveyances.—Farmer's Guide.

A Hint to American Apiculturists.

Beginners in beekeeping should remember that the modern hive with its eight frames is really but half a hive, and sometimes not more than one-quarter. During winter the bees for warmth can gather together into the lower story, and the rest of the hive can be taken away, but as the family increases in the spring and begins to store up honey they must have more room or some of them must move away or swarm. If we had but one good colony of bees we should want an empty hive and about six surplus boxes, each provided with frames or sections for comb honey. We would

try to use the surplus boxes so that not more than one swarm would issue, and we should expect in a good season to have some of the surplus boxes well filled, and it might be that some would be filled more than once if we gave them frames and sections provided with full sheets of foundation, and stimulated brood raising in the spring by a little judicious feeding. We would thus try to have strong colonies that bee-moths, ants and other insects or robber bees would not molest, as we would not leave any place where they could get into hive or super excepting the regular entrance which the bees would guard.

Milk and Disease Germs.

One class of bacteria producing human disease pass directly from sick cows into the milk. Tuberculosis is an example of this class, and a tuberculous cow may, under certain circumstances, contaminate her milk with the tubercle bacillus; but this seldom occurs unless the disease has attacked the udder, or unless it has reached its last stages. These bacilli may give rise to the disease in a human being if the milk is used. It may occasionally happen that scarlet fever and diphtheria arise from milk contaminated with the germs of these diseases.

In another class of diseases the germs find their way into the milk from some outside source. Typhoid fever is a most common example of this class. The germ grows with great readiness in milk, and if a few of them get into a milk supply, they may multiply so rapidly as to distribute the disease over a whole community and produce an epidemic. The milk may be contaminated by handling the milk or milk cans by those who have come in contact with the disease. Impure water is a more common source of contamination. On milk farms where there has been a case of typhoid fever, boiled water only should be used for rinsing the milk cans.

In summer it sometimes happens that bowel diseases are produced by abundance of bacteria in milk. The preventives are cleanliness and low temperature. Beyond much doubt a considerable part of the bowel diseases, especially of children, is directly traceable to milk coming from cows with inflamed or diseased udders.

In general, if the dairyman wishes to avoid danger of distributing disease in his milk he must adopt four rules: Never allow milk to enter the milk supply if it comes from an animal suffering from any kind of a diseased udder; never allow any person having any contact with or recovering from typhoid fever, scarlet fever or diphtheria to have anything to do with the dairy; always insist upon cleanliness in dairy matters and the application of cold to the milk to prevent bacterial growth; rinse the cans with water from reliable sources or with boiled water.—Professor W. H. Conn, in American Agriculturist.

Harvesting Sweet Potatoes.

Where sweet potatoes are grown for stock, the Texas experiment station suggests that cattle may be turned in to eat the tops and vines and afterwards hogs may be allowed to harvest the tubers. In this way the entire crop will be utilized at the smallest cost. If the crop is to be dug, it is important to determine when the potato is ripe. If when the tuber is cut, the sliced surface partially heals and becomes dry the crop is ready to be harvested, but if the cut place turns greenish black the tuber is not mature. The crop should be harvested with a breaking plow, using a roller coulters to cut the vines. Bruised tubers should be used at once, as soft rot is very liable to set in. Where the vines are to be stored for stock feed, the Arkansas station recommends that they be put into a silo, as they do not cure readily into hay.

The preservation of sweet potatoes has been studied by several of the stations. In Georgia the potatoes were stored in a pit Nov. 23, and all but 7 per cent. were sound April 1. The sound potatoes were in excellent condition, not sprouted, and when sampled on the table, of excellent quality. At the New York station tubers packed in dry road dust and kept at a temperature of 60 degrees, continued fit for the table until after the middle of January. At the South Carolina station experiments were made in keeping sweet potatoes packed with various materials in barrels. The materials used were sand, cottonseed, cotton hulls, damaged lint cotton, wheat bran, newspaper and hay. Dry sand and cotton hulls gave the best results. Wrapping each potato in paper induced rapid decay, but a double lining of paper next the barrel was fairly effective in keeping out cold and preventing rot. The keeping qualities of large and small tubers appeared about equal.

The Texas station reports that good results have been obtained by letting tubers remain in the ground until wanted. Throwing dirt over them with a turning plow will prevent freezing. If the potatoes are to be stored, they should be allowed to dry about two weeks and then carefully sorted. They should then be stored in dry road sand in a ventilated house. The sand should be changed each year as it will become infected with black rot. The sand proved a sufficient protection against mice, and potatoes kept well by this method even when the winter temperature went down to within 7 degrees of zero.

A Chinese plow is a light affair made of a crooked stick, with a steel point fastened to it, and is pulled by a water-buffalo.