

# COAL AGE

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## Climbing the Backstairs to Victory

THE PRESIDENT of the United Mine Workers has a genius for extricating himself from dangerous positions by unexpected rear-guard attacks planned to divert public attention from fundamental issues. Mr. Lewis succeeded measurably in 1922 by berating the operators of western Pennsylvania and southern Ohio for refusing to meet him in joint conference, and the technical charge of contract-breaking obscured discussion of the real issue of wages. He is attempting to repeat that strategy in his present campaign to wrest an undeserved victory from the anthracite operators. Afraid to submit the justice of his cause to an impartial tribunal, he resorts to his old tactics and endeavors to heighten public distrust of his opponents in the hope that the public will forget the intrinsic weakness of his own case.

Mr. Lewis' onslaught upon the standardization program adopted by the anthracite operators last April is part of his campaign to becloud the issues and win victory from panic and prejudice. When he says "the retailers feared that, if they protested, they would be cut off and given no more coal to sell," he feigns an amazing ignorance of the history of the events leading up to the promulgation of those standards. Not that the standards are perfect: they are merely the first steps in a program of sounder merchandising that must progress upward and onward if Mr. Lewis will be content with a reasonable wage for his followers and will support the producers in their efforts to discipline the workers who load dirty coal.

The whole question of sizing is still in a state of flux. The final answer must be reached by experiment and experience. The question cannot be solved by denunciation. The facts are that before the anthracite operators made the new schedule of sizes there was no general standard. Each company had its own. The retailer was in doubt as to what he was receiving when he specified any given size of coal.

Before the sizes were determined they were made a matter of conference between retailers and operators and the making of them was heralded by the former with acclaim, first because it replaced uncertainty by definite standards and secondly because on the whole it constituted an increase in size over the current practice. What the new standards provided was broadcast when they were announced. What is more the public which is the best judge, by its satisfaction shows that the new standards in general have improved the product, despite Mr. Lewis' belated discovery that their effect was harmful.

Time and accumulated experience must settle the question of what will prove the most satisfactory sizes. Attacks so palpably insincere as that unloosed by Mr. Lewis at Atlantic City last week will contribute nothing to a constructive decision in the public interest.

Of course, the public interest is a matter of no concern at all to the G.H.Q. strategists of the union. Their

sole concern is in devising ways and means to so alarm the public that the consumer will set up a wail for anthracite coal at any price. That is why Mr. Lewis' attack on standardization was coupled with a warning that the public was living in a fool's paradise and was due for "a rude awakening" when the last ton of anthracite had been scraped from the planks in the dealers' yards. If Mr. Lewis and his aides can again sell the public the idea that a cessation of anthracite production means freezing to death in the New England and Middle Atlantic states, Mr. Lewis will again triumph. The selling talk sounds thin to those who know the facts, but Mr. Lewis knows the effectiveness of outmoded slogans—especially when fighting opponents so cursed with modesty in the expenditure of money on publicity that that very virtue is vicious.

## Getting Their Due

A NEW POLICY has been pronounced by the American Federation of Labor with great *éclat*—that hereafter the workman in industry shall be permitted to enjoy the benefit of the decreased cost of production. As a matter of fact he has been enjoying it. Only the other day an eminent barrister in Illinois pointed out how in Washington's time a wealthy planter would leave to his daughter three pans and a large boiling kettle and to his son six chairs and a table. After all the nicknacks which today we would never mention had been distributed in the will, the eldest son was left several thousand acres of land. So much did they think in that day of forms of wealth which in these times everyone can have in abundance and no one values. The working man has his phonograph, his radio, his automobile. Who shall say he has not benefited and rightly from the cheapening of manufacture?

But if the profit of all this cheapening is to go to the man in the industry thus developed, the miner and the farmer will be greatly disadvantaged. They have proved themselves little more productive than they were several decades ago. The miner being in an industry where large masses must be handled and faced with greater depth and distance has not increased his output a thousandfold like the makers of pins, horseshoes and knives. The farmer confronted with soil of diminished fertility does little better than his forbears or barely as well. The profit of invention, systematization, power, simplification and standardization must go to consumers generally and not solely to these industries that are peculiarly adapted to such development.

So long as we have the unlimited action of supply and demand whether as to labor or capital, the consumer (subject of course, to patent intervention) will get the full advantage of cheapening processes. The principle of wage control favored by the Federation would try to keep from the public and give to the worker in any given industry the advantage of progress for which he was in nowise responsible. Such a restricting to certain persons of the advantages of

changes in method of manufacture, by depriving the consumer of participation in the profits, would result often in there being no changes.

If, for instance, when pins were made by hand hammers, a machine had been invented to make them by the gross, that machine would have never been constructed had this rule been in force; first because there would have been no advantage to the constructor, because only the workman who used it would profit and second because if someone were willing to build and exploit the machine the cost of the pins being no lower than that of the hand-hammered variety would be so high that no one would have been willing to purchase a gross of them. The new principle of the Federation is none too clear but, if it is just what it appears to be, it will put an end to a progress that has been quite helpful to the health, wealth and happiness of all mankind including above all the workman.

If it simply means that the laboring man must share in economies of production without regard to the industry in which he may be employed then there is no new principle involved. Because it is alleged to be new it is natural to assume that it reserves to the men in any industry the economies in that industry, a principle which seems fair till the conditions are examined. Had this been the old rule our mechanics would have lived in palaces, our railroad men in fine houses and our masons, carpenters and miners, and especially our farmers would have nothing but the sky as a covering for their heads.

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### Repeal of Certification Law

ALL THAT HAS BEEN said by John Hays Hammond as to the need for a repeal of the certification law in the anthracite region is correct. A law requiring the specific instruction of the miner before performing his duties would be more efficacious in promoting his safety and would not act as a barrier to prevent those men who desire such work from entering the industry.

The certification law prevents any prospect of introducing men into the mines to replace those who are striking, but after all if the law were taken off the statute books the attempt of the other men to accept work would be just as effectively prevented by the violence of the strikers, so its annulment would serve but little purpose. However, if removed, it would give a Governor, determined to keep order and maintain the rights of the individual, an opportunity to solve the anthracite puzzle by some other and better way than by another surrender to the demands of the mine workers.

The protection of the right to work for whom one will be believed to be inherent under the Constitution, but the exercise of that right would be as foolhardy in the anthracite region as it was in Herrin, and if the law restricting the right to work to certificated miners were repealed, much would need to be done before it would be prudent for a man to accept work from a coal company prior to a settlement of the present wage dispute.

Our practices are defective in that they wait till a dangerous condition arises before an attempt is made to correct it. To draw an analogy: Suppose a rule were somehow enforced prohibiting the rock dusting of a mine till it had been the scene of a disaster. Similar to this is the requirement that martial law shall not be

declared or troops introduced till the sheriff confesses the situation is beyond his control, which means until acts have been committed by which the lives and properties of the citizens are destroyed. We have so safeguarded ourselves against the misuse of laws that they are not preventive of damage till much damage has already been done.

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### Hope for the Oil-Burners

SAD IS THE FATE of the consumer of oil whose apparatus smokes and spoils the interior and exterior of his house, for his insurance does not protect him. Anyone who has burned oil in an oil lamp recognizes this danger. If the flame is ill-adjusted it does not have enough heat to consume the carbon and a greasy, non-removable smut covers everything. Nevertheless the householder cannot make a claim for damages to the company that carries his insurance.

But there is hope. The Insurance Department in New York State by James A. Beha, the superintendent, has ruled that a rider specifically stating the purpose of protecting the insurer from the effect of the smoke and indicating plainly the additional coverage applicable can be added to the policies of underwriters.

A householder in New Jersey recently left his home for a day without shutting off his oil-heating equipment. The draft of his flue carried the smoke and soot out of the chimney to fall as a pall all over his newly painted roof. Incidentally it settled on the roofs of his neighbors and on the wash hung out to dry.

With some such new clause as is to be provided he can be protected, even if his neighbors are not, by the payment of additional insurance. Thus is the damage done by oil-burning apparatus recognized commercially. Another way to obtain protection is not to use oil at all, thus protecting, if the fuel is a suitable one, not only the householder but his neighbors also and preserving peace in the community.

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### Speculation Must End

TO MAKE A STAKE has been the aim of too many operators. They rush into the enterprise during a strike or shortage, borrow all they can and plunge deeper and deeper in the hope of making big profits, interfering with the old timers in the industry. They go up like a rocket and descend like one. After the inflation of the industry ends, as it does, in a few short months, they flounder in debt and being burdened with many obligations, having agreed to pay all manner of royalties, and having mines ill-equipped and badly laid out, they mine and sell solely to keep up an appearance before their creditors. Having "high-price" mines, they have to sell coal below cost. They embarrass everybody and by their shoddy construction, their poor housing and their accidents they disgust all good operators and the public.

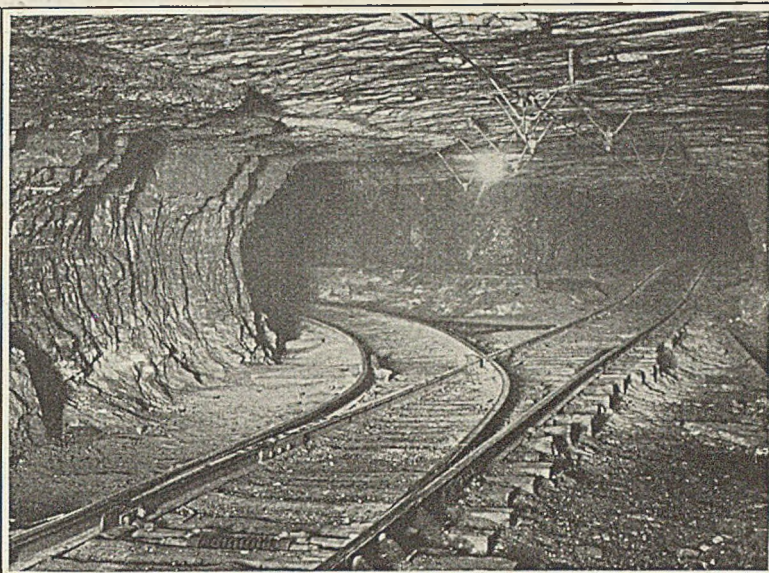
Coal mining should be an investment. The operating company should be ready to shut down and should shut down the moment operating proves unprofitable. No royalties, bond payments or debts should make it fearful of such a wisely conceived suspension. However, a company that has invested in a plant and not merely taken a flier in coal will be likely to be able to run steadily through a depression at a little profit. If the industry is to attain the stability that sound financing requires, bankers must refuse to back fliers in coal.

## These Mines Run On Schedule As Railroads Do

Island Creek Has Room-and-Pillar Plan Much Concentrated  
—Haulage Timed with Precision

By Alphonse F. Brosky

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**M**INING AND HAULAGE in the group of 12 Island Creek Coal Co. mines in West Virginia have been developed systematically to meet the conditions in those properties. Room-and-pillar mining on a panel basis proceeds with noteworthy concentration and extraction has been improved considerably over that obtained with old-time methods. Wide rooms and double tracks at the faces plus a haulage system timed to give every man a full opportunity to load coal have combined to keep output up to maximum. The various operations within the mines are scheduled to occur with the precision of railroading and the results of this system are uniformly good.

The 25,000 acres of Island Creek coal owned outright, together with the 5,000 acres of the same measure held under lease by the company constitute practically one unbroken tract. This lies chiefly in Logan but partly in Mingo County, W. Va. Although this bed is fairly level there is an extreme variation amounting to 474 ft. in the relation between the bottom of the coal and the tippel-track grade. This disparity reaches its limits at mines Nos. 18 and 20. At the former operation on Mud Fork, the coal lies 189 ft. above the railroad tracks under the tippel, whereas at the latter it is 235 ft. below them.

Conditions underground, however, are fairly uniform over a considerable area of the property except for those variations which accompany differences in the thickness of cover. In the four mines on Mud Fork, where the roof has a tendency of flake, conditions are least favorable but on the whole permit adherence to the uniform system and methods of mining which have been adopted for all the mines.

### SEAM IS 80 IN. THICK

The average thickness of the Island Creek seam under this property is 80 in. The seam is composed of splint and gas coal in approximately equal proportions. Roughly, it is divided into two benches separated by a 1- to 1½-in. slate parting which does not crumble in shooting and is easily separated from the coal. Above this parting and in the upper bench is

a 30-in. thickness of hard splint coal topped by a 4-in. thick softer coal.

Below the parting and in the bottom bench is a 42-in. bed of semi-splint coal underlaid by about 12 in. of softer coal. The bottom is of hard slate, the top of massive slate 40 ft. thick. The entire property is free from drawn slate and the cover over it varies in thickness from nothing at the outcrop to a maximum of 1,200 ft. under the highest mountain peak. Strata of sandstone in this cover are estimated to aggregate a thickness of 140 ft.

These massive strata make possible the driving of wide rooms without support by timbers. At the same time, particularly under heavy cover, they interfere with economical drawing of pillars by usual methods, no matter what proportion between first and second mining might be established.

### ROOF HAD BEEN TROUBLESOME

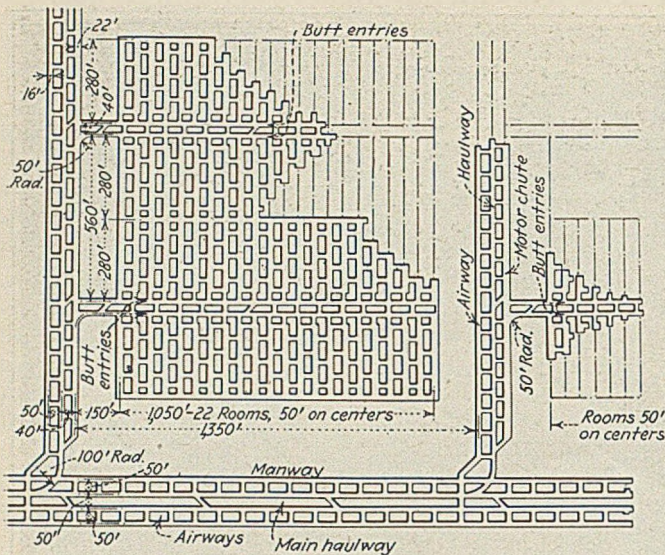
In days gone by in all its mines the company drew pillars methodically in a concentration system. Great pains were taken to maintain straight robbing lines on a 40-deg. angle to the room entries. Despite every precaution toward successful pillar extraction associated with room-and-pillar mining, difficulties in holding the roof were encountered; and almost without exception the quantity of timber required in pillar sections was greater than would be justified today by the additional recovery which the standard room-and-pillar system yields.

The company has modified its earlier methods. Rooms are now driven as wide as the cover will permit without the use of timbers and the pillars are made only wide enough to hold this cover until parts of the pillars can be extracted by honey-combing. Recovery in first mining is 67 per cent. Second mining in the future is expected to bring up the total recovery to a minimum of 80 per cent.

The mining system which has been approved for standard practice is a true panel system in that the room workings are completely surrounded by barriers of solid coal, which are broken through by butt entries on one side only.

Main entries are projected in groups of four or six headings, depending on the haulage and ventilation requirements. These are driven 16 ft. wide on 50-ft.

In the headpiece is shown a wide span of unsupported roof in No. 8 mine. From rib to rib along a line making equal angles with the sides the distance is about 35 ft. Under such sound roof it is possible to lay turnouts on large radius curves. Rail braces back the right-hand switch point.



Standard Mining System Layout

Between cross entries are panels which are pierced from only one side by the butt entries from which wide rooms are driven in two directions. The company intends, when it can get to it, to install rock dust barriers at the outlets of each of the panels. Rooms are 28 ft. wide on 50-ft. centers leaving room pillars 22 ft. wide which later will be partially recovered by "honey-combing." Recovery is now 67 per cent but the second mining is expected to raise this to 80 per cent.

centers and are protected by 280-ft. wide barriers. Crosscuts driven through the middle chain pillar of the main entry at the widely separated intervals of 420 ft., eliminate many expensive stoppings and minimize leakage of air from the intake to the return. Cloth brattices and sometimes a blower with flexible canvas tubes are used for conducting fresh air to the heading faces being advanced.

Cross entries are driven at intervals of 1,440 ft., center to center, in groups of three headings which are flanked by 150-ft. wide barriers. The airway and haulway are 16 ft. wide on 50-ft. centers. Adjacent to the haulway and on its inby side is a car storage entry termed the "motor chute." It is on 40-ft. centers with respect to the through haulway and is mined 22 ft. wide. Between live butt entries the motor chute is double tracked.

Pairs of butt entries are driven 16 ft. wide on 40-ft. centers at intervals of 560 ft. On each side of the

butt entries are turned 22 rooms. These are 28 ft. wide on 50-ft. centers and are 280 ft. in length. They are driven to their extremities on a front of 45 deg. to the butt entries.

Undercutting machines with 7½-ft. cutterbars are standard in these mines. Seventy-three of these machines are in current use. In 25 working days during May of this year these machines in the 12 mines cut 527,000 tons of coal, or an average of 289 tons per machine per day. This is a remarkable average for a large number of machines over a month's period in so many mines, the more so because the Island Creek bed of coal is hard to cut.

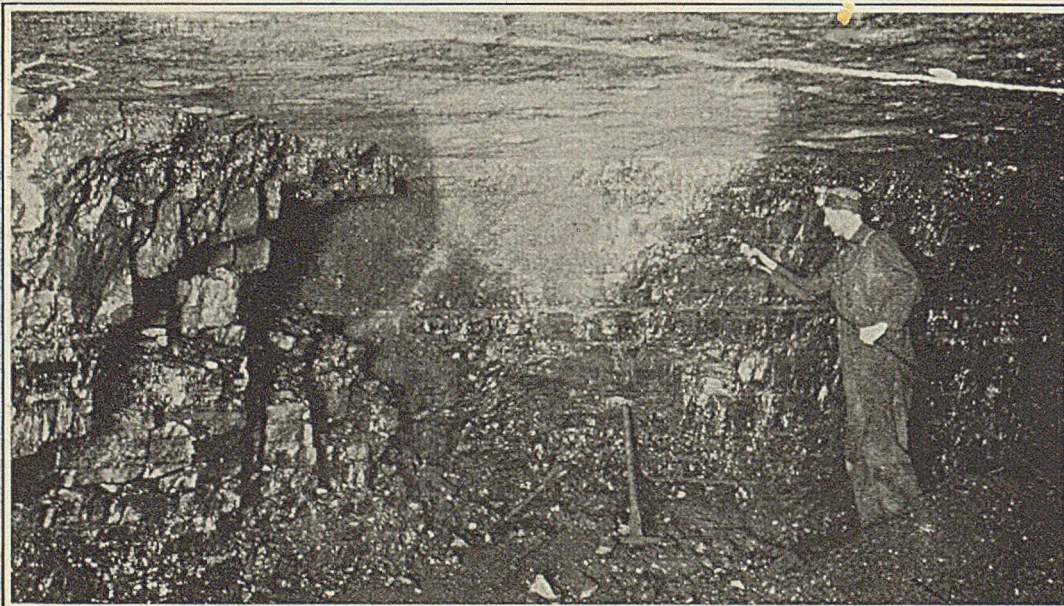
#### OPERATES 34 ELECTRIC DRILLS

Mine operation is not truly modern unless shotholes are drilled either pneumatically or electrically. The Island Creek company uses 34 electric coal drills for this purpose. Holes are started with a 24-in. stub auger having a diameter of 2¼ in. A standard 2-in. auger with an effective length of 7 ft. is then inserted in the drill for the completion of the hole. The use of the stub auger enables the driller to start the holes in this hard coal without difficulty and with a saving of time. All drilling is done at night by contract. From 600 to 700 tons of coal per shift is drilled by each drill crew of two men.

Each room is shot with three holes. The center hole is shot first and the coal which it yields is loaded before the rib shots are fired. This hole is started about 3½ ft. from the bottom and is angled slightly upward. It is charged with 16 in. of black powder in the non-gassy mines and four sticks of permissible in the gaseous operations. The two rib shotholes are started 4½ ft. from the floor, about 6 in. from the rib, and are angled upward and outward toward the roof and rib. These are charged with 8 to 12 in. of black powder or 1½ to 2 sticks of permissible.

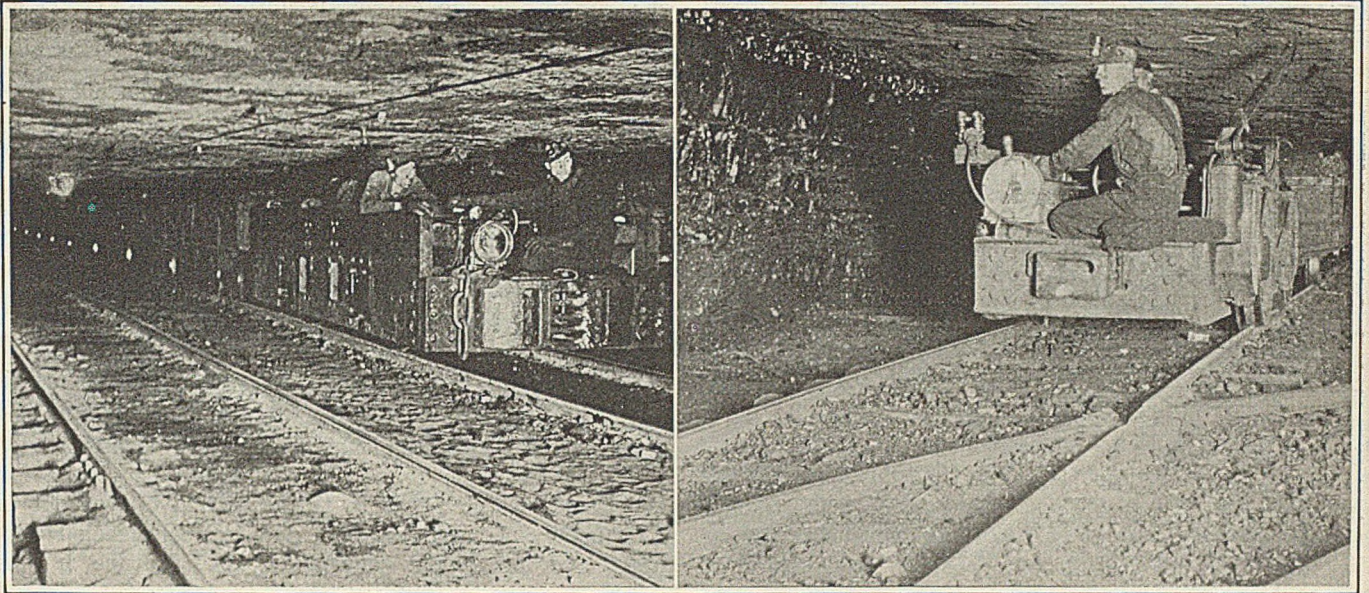
The same general specifications cover the drilling and shooting of heading coal except that in narrow places the charges are correspondingly decreased. All stemming is of yellow clay hauled into the mine from the outside. Electric detonators, of course, are used for discharging permissible explosives.

Every advantage and facility is given the miner to



Face of Island Creek Seam

This miner is easily a 6-footer and, though he is standing slightly above the mine floor, above him is head room to spare, showing how thick is the seam. The characteristic slate parting is clearly seen about 3 ft. from the roof. The miner is charging a center shot hole while cross-cutting a room pillar.



**Main Line and Gathering Haulage Are Both Operated on Schedule in These Mines**

At the left is a view of the main double track leading to the bottom in Mine 21, a shaft operation. A standard trip of 20 cars pulled by a 15-ton locomotive is shown. The last 2,000 cars purchased by the Island Creek company are lower than the ones in this picture. At the right is a 6-ton gathering motor at work on a butt entry. The soundness of the heavy main track and of the side-entry tracks where 25-lb. rails are laid is evident from a study of these illustrations.

enable him to do a good day's work. With sound roof above him it is the exception rather than the rule to set timbers. If the need for them is pressing they are set by company men. Practically the only duties of the loaders are to shoot and load coal. The miner is not required to drill shotholes. He is assured an adequate supply of cars, thanks to the concentration of the workings and the system of distribution and gathering which is scheduled with surprising precision.

Rooms are provided with double tracks so that loading from rib corners into the low cars provided is a comparatively easy task. Face tracks are extended by company men. Generally only one man is assigned to a room which, when newly cut, provides him with ample work for two or three days, depending on his speed of loading. If he is a good loader, conditions and facilities are such as to enable him to load 20 tons or more a day. Only the best loaders are assigned singly to faces of entries. One cut per day must be taken from each advancing entry.

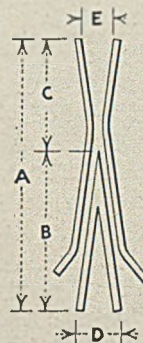
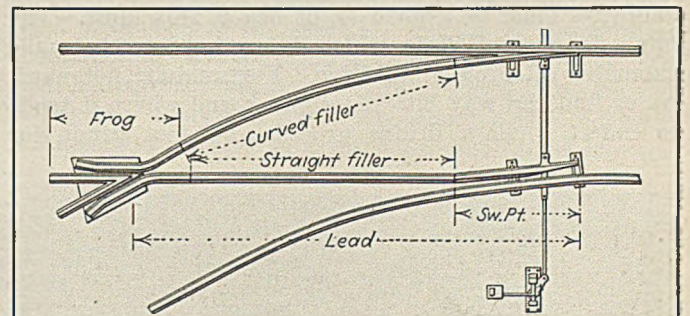
The company assumes full responsibility for safety and regularity in haulage. In the mines of few other companies is haulage arranged with any better eye for safety and efficiency or scheduled with any greater precision.

**HAULAGE OPERATES ON SCHEDULE**

Modern rolling stock, straight, and rigidly secured track and easy curves, in a haulage system closely co-ordinated with the more actual mining operations, eliminate from the mines of this company many of the uncertainties of balanced production, which the difficulties in mining engender. Trips are standardized as to number; gathering locomotives are assigned only as much territory as they can traverse in a specified time and, most important of all, haulage equipment is so carefully inspected and so exactly maintained that breakdowns and derailments are rare. In fact the system is worked out to that nicety which enables a mine official to predict with a fair degree of certainty the time of arrival of a main-line locomotive at any station.

The track gage is 44½ in. Tracks on the main haulways are laid with 60-lb. rails, on the cross entries with 40-lb. rails and on butt entries and in the rooms with 25-lb. rails. In the main and cross haulways the tracks, which in the first instance are laid with 25-lb. rails, are relaid with 60- and 40-lb. rails, respectively, with each advance of 300 ft. Rails of 40- and 60-lb. weight are supported by 7x9- or 5x7-in. wooden ties as conditions require.

In butt entries the 25-lb. rails are held in place by 4x6-in. wooden ties. Normally these ties are placed on 18-in. centers; but where conditions are such as to



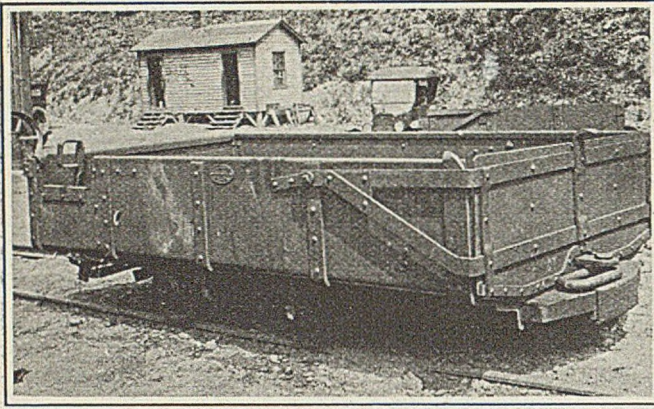
Frog No.	Radius	Filler Str.	Cur.	Switch Point
3½	100'	16'-1"	16'-5"	6'-0"
4½	150'	18'-2"	18'-7"	7'-0"
5	200'	23'-3"	23'-8"	7'-0"

Frg.No.	A	B	C	D	E
3½	60"	39"	21"	11½"	6"
4½	72"	45"	27"	10"	6"
5	72"	45"	27"	9"	5½"

Frog & Switch Data  
For Large Radius Curves  
44½" Gage  
I.C.C.Co. Not to scale 3-14-25

**Specifications for Frogs, Switches and Curves**

The Island Creek company finds it pays to adopt standards like these for the construction and laying of turnout track equipment.



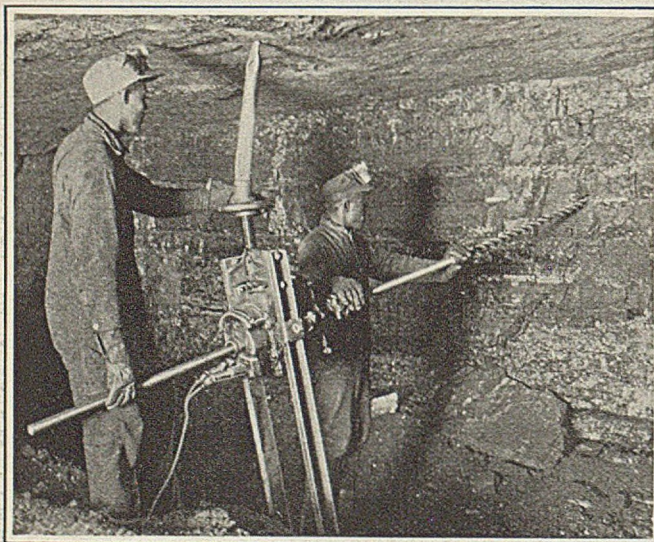
**A New Low-Type Mine Car**

The top of this car is about 33 in. above the rail. It has a 35-in. wheelbase. Because of this it is well balanced and comparatively free from rocking. Grades in these mines are easy so that steel strap brakes applied to only one pair of wheels supply adequate friction to check the motion of, or stop, the car. Acid-resisting steel is used in its construction.

require more support under the rails the ties are spaced closer. Those ties also which do not quite measure up to specifications as to size are more closely spaced. Room track is anchored by steel ties and room switches are laid on 3x5-in. wooden ties. The latter serve their purpose effectively for just about the time required (four to six months) to drive a room in these mines, after which they are discarded.

On the main haulways the rails are braced from the ribs by ties, which are staggered, on 50-ft. centers and closer where necessary. This practice has been found especially useful during the time required by a new track to settle completely. It also tends to keep in alignment those stretches of track which are flanked by drainage ditches.

In those sections which are not level and where track is laid with 40- and 60-lb. rails, the average grade is about 1½ per cent. All humps and swags on main-line haulways must be graded to, or below, this limit. The mine floor is of slate which is so hard as to make extensive ditching prohibitive. Fortunately, not much water finds its way into these mines and where it tends to collect, shallow drains provide sufficient grade for



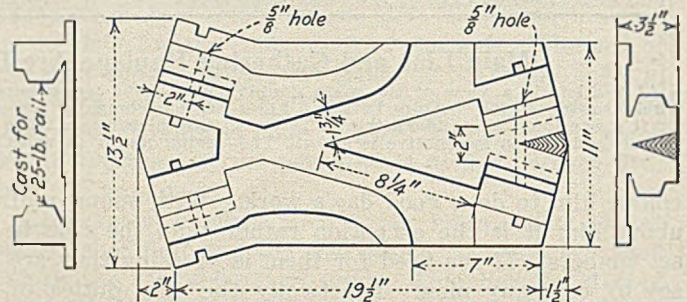
**Drilling Shot Holes Electrically**

The time is not far off when shot-holes will be drilled by power in all mines. This company has drilled holes in this way for several years past and has appreciated the many advantages of this practice. This crew can drill about 700 tons of coal a shift.

the run-off. Wide entries permit plenty of clearance between mine cars and ribs. At no point is this clearance less than 2 ft.

The radii of curves at switches vary from 50 to 200 ft. In turnouts to flats the curves are made either 150 or 200 ft. in radius. Butt turnouts have a radius of 100 ft. and those to rooms 50 ft. Data relating to frogs and switches in entry turnouts and details of the standard room frog appear in accompanying illustrations. Frogs Nos. 5 and 4½, respectively, rest on four 7x9-in. and four 5x7-in. hewn ties to provide greater support where haulage moves swiftly on turnouts.

It is customary in these mines to elevate 2 to 3 in. the outer rail of curves traversed by the main-line locomotives. Curves in room switches are slightly banked. This practice may seem far-fetched but actually it has been found justifiable because it lessens the thrust which tends to throw switch curves out of alignment and reduces wear and tear on track equipment and mine cars generally. This feature is par-



**Cast Frog for Room Switches**

This type of room frog has been made standard because it has caused the least trouble. Resistance to wear and easy assembly are its chief merits.

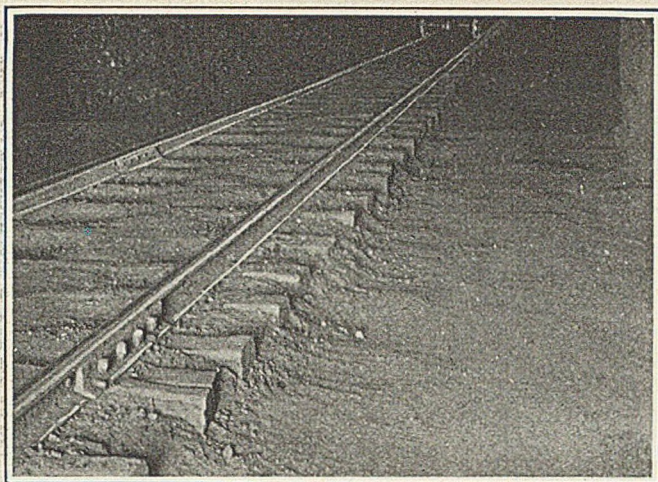
ticularly helpful where mine cars with a comparatively long wheelbase are used.

Under rails which are curved tie plates are sometimes inserted. Where excessive lateral thrust is likely to be imposed upon a rail, pressed steel rail braces are used.

In the twelve operating mines of this company are approximately 5,000 mine cars, each with a capacity of 2½ tons and all equipped with roller bearings. They are of composite construction, the steel being acid-resisting. Not all of these are of the same general design though all are of the end-gate type. Within the last year the company has installed about 2,000 new mine cars to replace those which were considered antiquated.

The tendency in the design of the new cars is to lower the height and to increase the wheelbase. Thus the latest car installed has a height of about 33 in. and a wheelbase of 36 in. giving a well-balanced car which has little tendency to rock or jump the track—as against a height of about 40 in. and a wheelbase of 31 in. on the older cars.

The height of the new car is lowered 1 in. by the use of 14-in. wheels instead of 18-in. wheels. It is further lowered by incorporating wheel housings in the bottom of the car allowing the wheels to extend through the flare plates of the bottom. Inasmuch as excessive grades are not encountered in these mines brakes are applied only to one pair of wheels. The brake shoe is of the flexible steel band type, the first and maintenance costs of which are lower than those of a wood-block brake shoe. On this car the brake lever is on the side, and in the clear.



**Nearest Approach to the Immaculate In a Coal Mine**

Many accidents can be avoided by keeping clean the roadways of mines. The haulage entries in these mines are not always as clean as the one here shown, but an attempt is made to keep them so. Clean-up men are constantly employed for this purpose.

A "motor chute" increases the efficiency of mine car gathering and distributing operations. Of the three headings composing a cross or flat entry from a main entry, that heading on the side from which butt or room headings are turned is driven 22 ft. wide and is referred to as the "chute." Within the limits of the live workings this heading carries a through track and parallel side tracks. These are laid as required between live butt entries and, of course, are maintained only so long as sufficient coal to warrant their existence is hauled from the butt entries at their extremities. After that they are torn up and moved to an advance position in the same motor chute. Each side track is 375 ft. long, allowing a storage capacity for 25 cars.

Although generally it is the practice to drive butt entries and work rooms from only one side of a flat entry, a double flat entry of six headings may be driven to pierce an extensive body of coal. This digression has been followed in the layout of the Main Flat East entry in the new No. 20 mine which in the future will reach a capacity of 4,000 tons a day. The variation is limited only to a large mine area which of

itself requires a main flat entry in every way equivalent to a true lateral main entry. In the haulway of this main flat entry, track similar to that of a lateral main entry will be laid to serve as a cross-mine thoroughfare from distant parts of the mine.

As the double flat entry is advanced, butt entries are turned and rooms worked to the right and left of it. Of the six headings in a double flat entry, the two outer headings are driven 22 ft. wide as "motor chutes" and the remaining four which are 16 ft. wide are devoted one to a main haulway and three to man travel and airways.

Trips from the side tracks to the dumping points are handled by 15-ton locomotives; gathering is done by 6-ton locomotives of the cable-reel type. Each of the former will haul an average of 1,000 tons and each of the latter 300 tons of coal in an 8-hr. shift. A standard trip consists of 20 cars, though in the larger mines, as in the new Mines Nos. 20 and 21, it may be increased to 40 cars coming from large mining areas. The maximum speed of main-line locomotives is 12 m.p.h.; that of the gathering locomotive is 8 m.p.h.

**REQUIRE DEFINITE TONNAGE PER SHIFT**

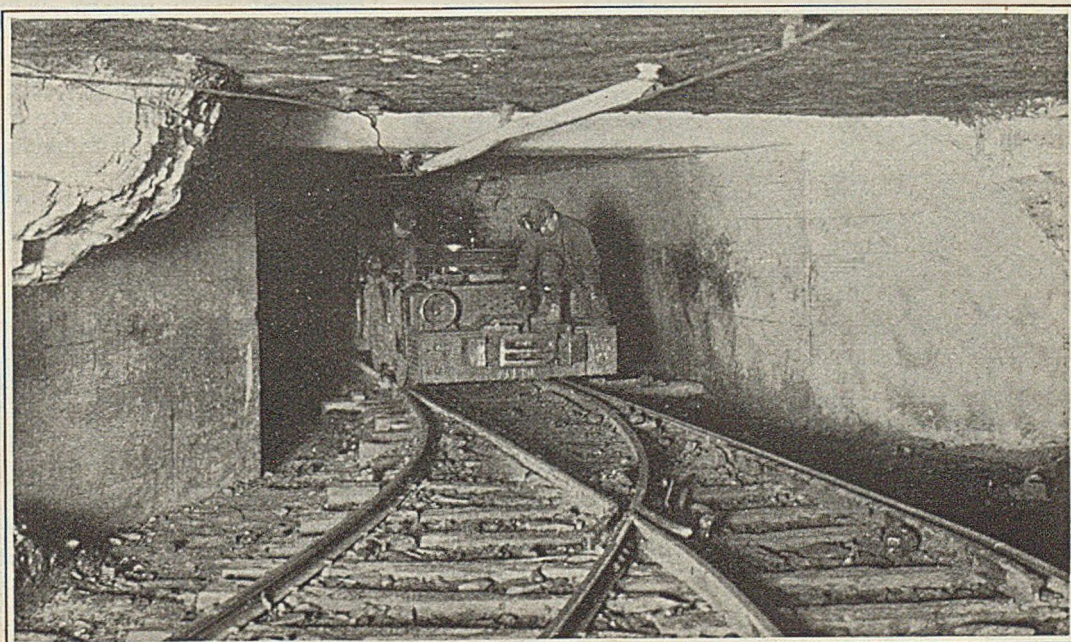
Promiscuous gathering operations are not tolerated. Working places are concentrated to facilitate the work of the gathering locomotives. Each locomotive is assigned definite places which it must serve and the schedule is so arranged as to require of each crew a definite tonnage per shift. For this tonnage a crew is paid a contract rate by the car with compensation for time lost due to delays beyond the control of the crew.

In the make-up of a 20-car trip, gathering locomotives may work singly or in pairs. A cycle in which 20 cars are distributed and 20 gathered by a single locomotive requires an average of 1½ hr. However, where hauls are long, gathering locomotives work in pairs, each gathering simultaneously 10 cars for the make-up of a 20-car trip. This arrangement is favored and is practiced wherever it is feasible. A pair of locomotives thus working will make up a 20-car trip every 40 min.

A haulage system is no more efficient than the job it serves. Realizing this, the Island Creek company maintains schedules in mining as well as in haulage.

**Trolley Guard Is Rubber Hose**

Though its first cost is higher than a wooden guard, the company leans toward the hose trolley guard because it is flexible and requires no further attention after it is once installed. The sturdiness of track construction is obvious in this illustration.



A loader is given only as many cars as his records show he can load in a shift. The wide rooms which yield as much as 60 tons per cut and the double track help loaders to maintain high average tonnages.

As far as possible loaders on heading work are provided with reserve cars. Gathering locomotives make frequent visits to these places. Where a heading is not double tracked the reserve car is stored in the nearest room neck or butt-off. In advancing the 22-ft. wide "motor chutes," which are always double tracked, it is customary to work two miners.

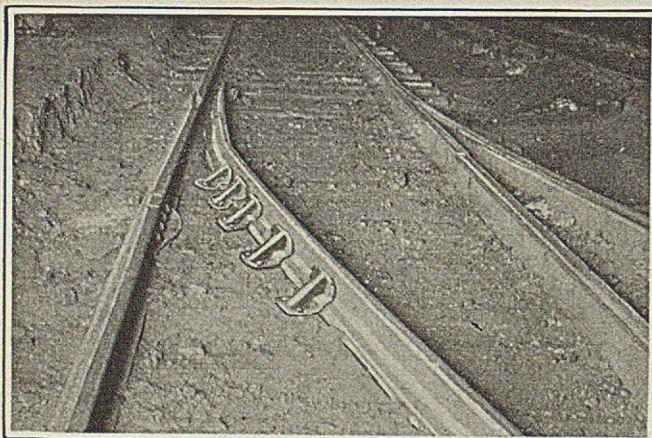
#### DISCIPLINE AIDS EFFICIENT HAULAGE

Haulage accidents are few and far between in these mines. Before a man is assigned a job as a motorman by the company, regardless of his experience elsewhere, he must have served an apprenticeship as a trip rider so as to learn the company's system. Then he must pass a test on an easy haul before he is allowed to assume the responsibilities of a regular motorman. Absolute discipline is required and a man guilty of malicious misconduct is punished by dismissal, not by compulsory layoff. No arguments between miners and motormen are tolerated. If either has a complaint to make it must be to the boss in charge of the section in which the controversy originates.

An electric lamp signalling system informs each motorman before he reaches the main entry track of the moves scheduled for him by a trip dispatcher. Incidentally, by this means also the dispatcher knows when and where to send a locomotive with its trip of empties. The system eliminates collisions and confusion.

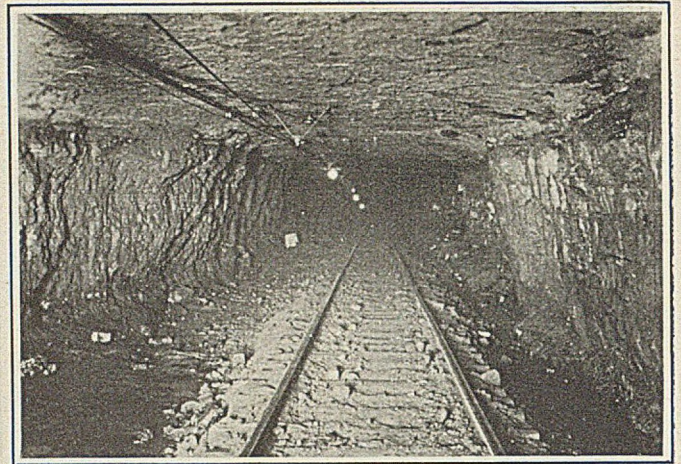
The Island Creek safety club, through the agency of which the miners levy fines upon themselves, has done much to decrease fatal and lost-time accidents generally and those in haulage in particular. Good illumination where it is required along main entries has lessened the hazards of haulage. Electric lamps are installed at all junction points and switch-throw stations. Rock dusting, which is beginning to be a practice of the company, will do much for safety by bettering illumination.

Crossover tracks are never employed; so their dangers do not exist. On permanent haulways, rerrailers are placed along each rail abreast of groups of timber sets and in the approaches to automatic doors.



Steel Braces Stiffen Transfer Rail

A derailment on this double-track landing in No. 7 slope mine would curtail production temporarily, particularly if both tracks should be tied up by a mishap at the transfer point. To prevent spreading of the transfer rail, braces are used where the thrust is greatest.



Sound Track in a Wet Place

The Main West haulway in No. 8 mine passes under a creek. Water from the stream finds its way to this entry; but even so, the presence of water is no excuse for poor track. This stretch of track is probably as good as any to be found in any mine in the country. It is laid with 60-lb. rails.

All trolley wires at junctions are guarded either by boards or by a covering of flexible hose. This hose guard is much preferred though its first cost is higher. It is the equivalent of a 2½-in. diameter fire hose and is made of rubber-reinforced fiber especially for the purpose.

Equally as influential for safety in haulage are factors which have to do with inspection and maintenance of haulways and rolling stock. Responsibility for the condition of track in a mine section is vested in the boss of that section. It is incumbent upon him, therefore, to inspect closely and regularly that part of the track which is allocated to his care. The permanent track is watched by all men of official capacity and in particular by the mine boss who is held directly responsible for its condition.

#### TRACK CREWS ORGANIZED

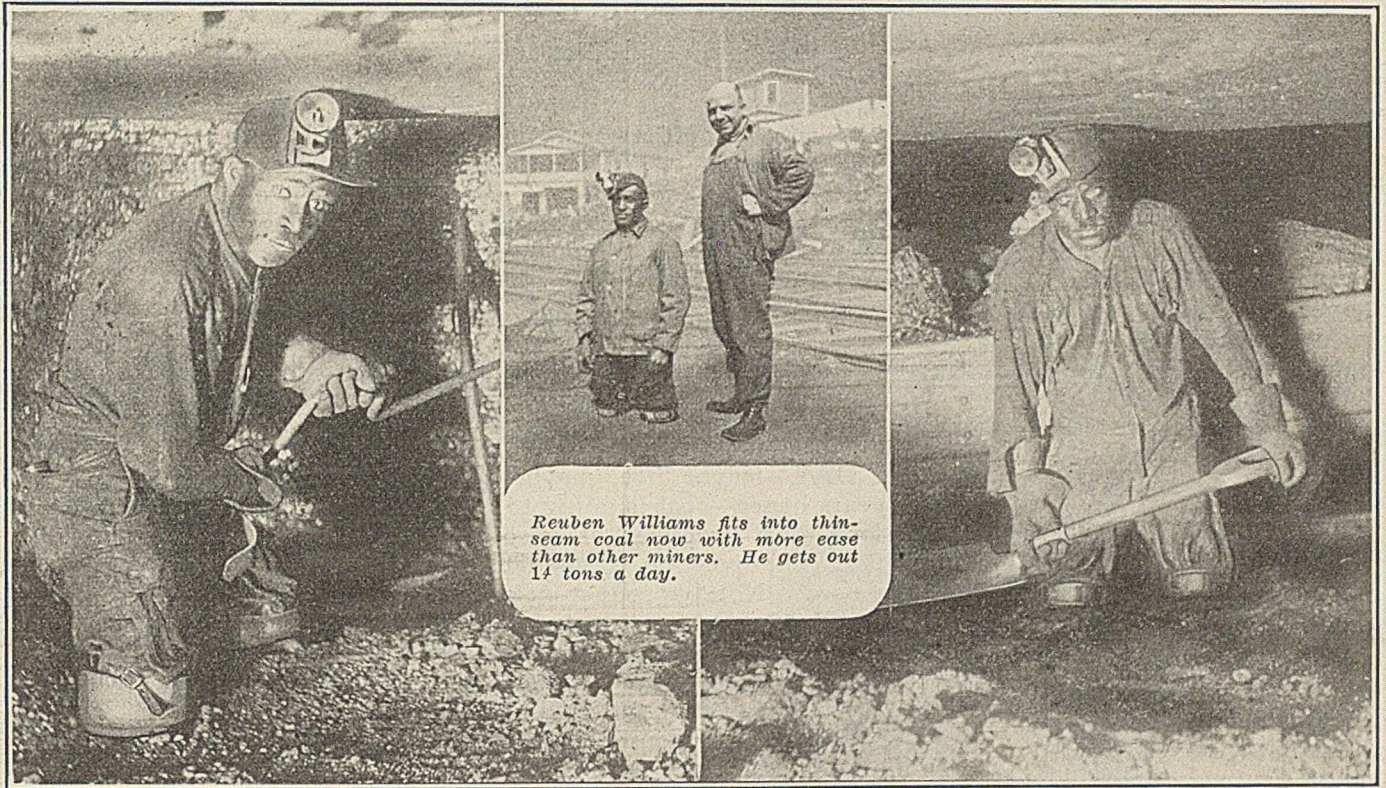
The maintenance, repair and extension work on 40- and 60-lb. track is executed by crews of as many men (usually three) as are required for a given length of track, headed by a track boss. Butt entry and room tracks are repaired and extended and otherwise maintained by crews of two men. As a general rule one such crew is employed for each gathering locomotive in service. In the precinct of a gathering locomotive where rooms only are being driven, one man is sufficient for the maintenance of the required track.

Perhaps the most important factor in maintaining safety is the effort exercised by the mine bosses to keep the haulways clean. Every day is "house cleaning day," for crews of men are always engaged in shoveling trip spillage from the haulways in one part of a mine or another.

The company is of the belief that the results of inspection are more material than those of repairing and in this it includes the inspection of rolling stock. One man is stationed at the landing at each mine, whose duty it is to inspect all cars before they enter, or after they leave, the dump or cages. Defective cars are marked "shop" and a locomotive side-tracks these for repairs. Trivial adjustments are made by the inspector but cars requiring larger repairs are sent outside to the car shop. The thoroughness of the system in Island Creek mines makes both mining and haulage highly effective.



# Losing His Legs Only Made Him a Better Miner



By W. J. German  
Huntington, W. Va.

WHEN HE WAS A YOUTH, Reuben Williams worked as a miner in thin coal. The constant stooping soon drove him outdoors as a laborer for a railroad. But fifteen years ago an evil day befell Reuben—or he thought at the time that it was evil. While he was standing in a deep railroad cut a landslide occurred and he was pinned between two boulders. Both his legs were crushed. They had to be amputated just above the knees. Lying in the hospital, Reuben suffered mentally as well as physically. If he ever got out, how would he ever earn a living without legs? Must he beg?

Finally he was discharged from the hospital. He hobbled about on the tender stumps until they became calloused. For awhile he used short crutches. But he hated the crutches. They made a "cripple" of him. He could walk without them but the ends of his poor, short legs hurt him. Finally he had a pair of "shoes" made. These were equipped with springs so that they served him more or less as knee joints. Then he was comfortable and could navigate as sturdily as anybody, albeit slowly.

But he had no job, and his dependents had to be fed. He says he saw two paths to follow: one led to a battered hat and humiliation on a city sidewalk, the other to an endless round of employment offices where nobody would be able to think of a single job he could hold. It was disheartening. But Reuben Williams didn't quit. He thought.

One day he was standing before a mirror viewing his full 42 in. of height. Only 42 in.! What a tragic joke those boulders had played on him! But as he looked, there flashed across his mind a picture of himself standing under the low roof of a coal mine such

as the one out of which he had been driven by back ache. He would be able to stand upright in that mine now. He would just fit! He could work there more comfortably than any man with full-length legs. Why not? Well, he induced them to let him go back to the trade he had quit. He went to mining coal again.

Today Reuben is an expert miner in the Glen Morrison mine of the Morrison Coal Co. in West Virginia. It takes him longer to walk to his working place each morning, but he starts earlier and arrives when the rest do. Not having to stoop so much, he drills, blasts and loads his coal more easily than most men. The short-leggedness which is a handicap on the surface, stands him in good stead underground and his output of coal is as good as anybody's. Over a month's run he is among the leaders of the mine. During two months recently he averaged 14 tons—drilled, blasted and loaded—each working day.

In the illustrations Reuben is seen loading coal at the right with hardly a feel of "crick" in the back. At the left he is drilling a shothole, gaining extra force by bracing his head against the roof. The inset shows him standing beside the author of this article, a man of average height.

When he goes home at night he finds his wife and child—a boy now about six years old—in a neat, comfortable house. They have plenty of food and good clothes and occasionally they take a little trip somewhere. Indeed the Williams family is a good deal envied in a friendly way by some of the other colored folks whose men never have lost so much as a finger. Reuben is a success. Thin seam coal drove him to lose his legs and now it is giving him back an honest, independent living and a lot of personal satisfaction.

# Coal Soon Will Help Supply Nation's Gasoline

By A. C. Fieldner and R. L. Brown

Chief Chemist and Organic Chemist, U. S. Bureau of Mines,  
Pittsburgh, Experiment Station

UNMINED coal of the United States existing within 3,000 ft. of the surface is estimated by M. R. Campbell of the U. S. Geological Survey at 3½ trillion net tons. The exhaustion up to the end of 1918 amounted to only about one-half of 1 per cent of the original total supply. There seems no doubt that most of this great mass of coal, constituting over 60 per cent of the world's reserve, will still be in the ground when all the petroleum available by drilling and pumping methods becomes exhausted in the United States. For the United States, coal is the logical source of liquid fuel substitutes for petroleum gasoline.

It is recognized that shale oil and alcohol from vegetable matter will contribute considerable quantities of fuel, but they can not carry the bulk of the load if we are to continue using anything like the amount of gasoline consumed today.

The processes for obtaining motor fuel from coal may be grouped in three classes:

(1) The carbonization of coal, including the gas manufacturing and coking industry, and low temperature carbonization. (2) the hydrogenation of coal by the Bergius process. (3) The complete gasification of coal and conversion of the resulting gases by pressure synthesis into methanol, "synthol," and other liquid combustibles.

Of these processes only the high temperature carbonization process is in actual commercial use, if we except the distillation of brown coal in Germany which is done at low temperature.

## DEVELOPING LOW TEMPERATURE PROCESS

A number of large-scale, low temperature experimental units still in a developmental stage are operating intermittently in both this country and abroad. The principal object in most of these experiments is the production of a convenient form of smokeless solid fuel. Any considerable increase in the price of liquid fuel would probably make some of these low temperature processes commercially successful.

The partial liquefaction of coal by hydrogen under pressure according to the Bergius method has been under laboratory investigation in a number of European laboratories, and one of us saw a 2-ton-per-day unit

operated by Dr. Bergius at Rheinau near Mannheim, Germany. This demonstration took place a year ago.

In the modern byproduct coke oven a ton of coal yields from 3 to 4 gal. of crude light oil of which 60 to 70 per cent, after proper refining, may be utilized as motor fuel. During the year 1923 the total coal coked was 55½ million net tons, of which two-thirds was made in byproduct ovens. The light oil recovered was 135

million gallons, of which 95 millions would have been suitable for motor fuel. This figure is approximately 1¼ per cent of our gasoline requirement of 7,600 million gallons for the year 1924.

If all the coal carbonized in 1923 were put through byproduct ovens, the yield would not exceed 2 per cent of these requirements, and finally if the entire 1923 output of 545½ million tons of bituminous coal was subjected to the byproduct coking process, it would furnish only 1,335 million gallons, or about 18 per cent of the gasoline used in 1924. Obviously the ultimate production of benzol possible can only serve to furnish a limited quantity of blending agent for gasoline-

alcohol mixtures. In this connection there is a possibility of virtually doubling the quantity of motor fuel from the carbonization of coal through the conversion of ethylene in coal gas into ethyl alcohol.

Low temperature carbonization, according to many writers, affords a means of replacing our petroleum resources. It is an established fact that the low temperature distillation of coal yields from two to two and a half times as much tar per ton as high temperature carbonization.

Carefully conducted large scale tests by the Fuel Research Station in England gave 1.4 gal. of light oil distilled from the tar and 1.6 gal. scrubbed from the gas—a total of 3 gal. per ton of coal. Fischer and Glud in Germany obtained 2.0 to 3.8 gal., and Davis and Parry, of the Bureau of Mines, obtained 4.5 gal. of light oil suitable for motor fuel from the low temperature distillation of a Pittsburgh district coal on a laboratory scale.

These yields are of the same order as the benzol yields of high temperature carbonization. However, they can be augmented by the pressure cracking of the low temperature tars as shown by Morrell and Egloff, who report a yield of 17 per cent of the total tar converted into oil distilling below 230 deg. C. Assuming an average yield of 25 gal. of tar, this would mean

## HOW IT CAN BE DONE

SOME DAY—maybe five, maybe twenty-five years hence—coal is going to come to oil's rescue as a producer of gasoline for motor fuel. The question is: What process is to be used? Not byproduct coking, Mr. Fieldner and Mr. Brown conclude, because that would have produced, from the whole 1923 bituminous coal output of the country, a bare 18 per cent of the 7,600 million gallons of gasoline America consumed in 1924. Low temperature distillation, now in its infancy but developing fast, would have made the yield only 20 or 30 per cent. Both these processes may help in the future but the real solution of the motor fuel problem, these authors think, lies in making synthetic gasoline from coal gas and water gas. It is time coal producers delve into this subject, they say.

4.25 gal. of motor fuel per ton of coal or a total of 6 gal. including that scrubbed from the gas.

Low temperature coke is not suitable for metallurgical purposes, hence the development of this industry will not reduce the quantity of high temperature coke made. Its logical field is in the processing of our poorly coking and non-coking coals and lignites for the production of smokeless solid fuel. It is reasonable to expect in the relatively near future that 100 million tons of bituminous coal will be carbonized at low temperatures. This amount would yield 600 million gallons of motor fuel, or about 8 per cent of the 1924 gasoline requirement.

Another reasonable expectation is that super power stations will carbonize coal at low temperature, and generate steam from the pulverized residue. The 60 million tons of coal burned in central power plants would thus provide 360 million gallons of motor fuel which added to the yield from plants making domestic fuel would furnish a total of 960 million gallons, or 13 per cent of the annual requirement.

#### MUST BE A PRINCIPAL PRODUCT

Thus it is evident that the maximum possible development of low temperature carbonization can not serve to furnish more than 20 to 30 per cent of the annual requirements, based on present day consumption. We must turn to processes in which motor fuel is one of the principal products rather than a minor by-product.

Of these the Bergius process deserves serious consideration since it converts from 25 to 50 per cent of the coal into tar and oils, the yield varying with the type of coal and the conditions of hydrogenation. In this process, pulverized coal mixed with oil or tar to form a thick paste is heated at 400 to 450 deg. C. in an atmosphere of hydrogen under a pressure of 150 to 200 atmospheres of hydrogen. Under these conditions the coal is converted into a black, tarry liquid which, on distillation up to 300 deg. C., yields oils and tar to the extent of 20 to 40 per cent according to various reports.

We may regard the Bergius process as one of the possible future methods for making a petroleum substitute from coal. But it must be emphasized that in this process, a gasoline substitute is only one of the products, the gasoline being in about the same proportion as in a light crude petroleum. From the standpoint of motor fuel production, the direct synthesis from gases seems more economical.

#### INVESTIGATIONS SHOW POSSIBILITIES

The investigations of Patart and Audibert in France, and of Fischer and the Badische Anilin and Soda-Fabriken in Germany together with the production of methanol from carbon monoxide and hydrogen on a commercial scale by the latter has put a totally new outlook on the entire subject of our future motor fuel supply. In this process, pure methanol is produced from two volumes of hydrogen to one of carbon monoxide when subjected to pressures of 150 to 250 atmospheres and temperatures of from 300 to 425 deg. C. in a copper lined reaction chamber, containing one or more of a number of catalysts which include zinc oxide or oxides of chromium, vanadium, manganese, tungsten, uranium, lead and bismuth. The cost reported from both French and German sources varies from 18

to 27c. per gallon. About 18 per cent of the heat value of the constituent gases is consumed in the conversion. There are no byproducts. One ton of coke should yield 350 gal. of methyl alcohol.

However, we need not confine ourselves to methanol, the experiments of Franz Fischer, director of the Institute for Coal Research at Mülheim-Ruhr, show that fuel mixtures of higher heating value can also be synthesized from carbon monoxide and hydrogen. Fischer and his associates have produced on a laboratory scale from water gas a mixture which they term "synthol" that consists of a mixture of alcohols, aldehydes and ketones with small quantities of hydrocarbons.

Water gas plus hydrogen is subjected to a pressure of from 75 to 150 atmospheres at 400 to 425 deg. C. in a steel reaction chamber containing a catalyst prepared from iron and a solution of sodium carbonate and consisting presumably of sodium ferrite. Byproducts of this reaction are carbon dioxide, methane and water. By recirculation of the gases, about one-third

of the original water gas is converted into liquid products, having a distillation range similar to gasoline, and a heating value of 8,200 cal. per kilogram. This process is yet in its early laboratory stages.

Where will these processes fit into our present and future industries? Will the petroleum or the gas and coke industry be in the better economic position to make synthetic fuel?



(Wide World Photo)

Dr. F. Bergius

German scientist whose new process of liquefying coal is attracting wide attention.

The large refineries have the organization, financial resources, and the distributing systems to market the fuel. The methanol and synthol processes are peculiarly adapted to this purpose since the entire product can be converted into motor fuel. But the petroleum industry is likely to have strong competition from the manufactured gas industry which has an inherent economic advantage in that it is engaged in the manufacture of water gas, the raw material for methanol and "synthol." The summer months when the need for motor fuel is greatest is the period when gas plants have much idle capacity.

The public utilities distributed in 1924 some 500 billion cubic feet of manufactured gas, of which 74 per cent was carburetted water gas. The estimated annual idle capacity of these water gas plants is 350 billion cubic feet. This amount of gas will produce 1,500 million gallons of methanol or 300 million gallons of the mixture "synthol." Fifteen hundred million gallons of methanol is 13 per cent of the "gas" used in 1924.

The most promising solution of the motor fuel problem of the distant future is in this synthesis from coal gas and water gas, since there are no inherent quantity limitations imposed by the market for other products.

## Why Are Loading Machine Operators Paid \$10.07?

Rate Now Used in Illinois and Indiana Was Fixed At New Orient Mine in 1924—First Loader Scale Was Made at Petersburg, Ind.

**I**N THE Central Competitive Field, where loading machines are working in several mines, operators of the machines are paid at the rate of \$10.07 per 8-hr. day. This rate was agreed upon for New Orient mine of the Chicago, Wilmington & Franklin Coal Co., at West Frankfort, Ill., in a joint conference of operators and miners July 9, 1924, to consider the demand that the miners be paid on a straight tonnage basis. The same rate also applies now at other coal mining properties.

Many operators have asked the question, "Why the seven cents?" To get to the origin of this \$10.07 rate takes us back to the earliest contract with the United Mine Workers covering the operation of mechanical loading machines. This contract, signed Jan. 15, 1921, pertained to the experimental mine of the Pike County Coal Corp., at Petersburg, Ind. The body of the contract reads as follows:

This agreement has been reached between the Simplex Coal & Mining Co., hereafter called the company, and local union No. 5122 U. M. W. of A., to govern a new system of mining undertaken by this company until such times that a scale of wages may be reached between the Indiana Bituminous Coal Operators' Association and the district officers of District No. 11 U. M. W. of A., which will be asked for after the different types of machinery required in this new system of mining have been thoroughly tested out in wide work.

The following conditions of employment will govern all employees of the company under the jurisdiction of the U. M. W. of A.; namely: (1) That all men performing such work as the existing Terre Haute agreement covers will be governed by said agreement. (2) That all men performing such duties not covered by the existing contract will be known as machine operators who will do all work they are called upon to perform by the company. These men will be paid at the rate of \$1.50 per hour. (3) That all men being employed by this company will be known either as machine operators or day laborers—it being understood that a day laborer's work and conditions of work are the various types of shift labor covered by the Terre Haute Agreement. (4) That any day laborers called upon to perform machine operators' duties will be paid at the rate of \$1.50 per hour while performing such duties. (5) In case of incompetency in the judgment of the company a machine operator may be changed to laborer. Such men, upon being changed, will be paid laborers' wages.

[Signed].....this 15th day of January, 1921.  
Local Union No. 5122 U. M. W. of A.

By PHILIP C. SCANLON, President.  
By GEORGE W. BARNES, Secretary.  
By MORRIS YATES, Committee.  
By ED. HARRISON, Committee.  
By GEORGE W. BARNES, Committee.  
SIMPLEX COAL & MINING CO.  
By EARL B. SMITH.

In a recent interview, N. H. McClevey, manager of the Pike County Coal Corp., pointed out that, although the \$1.50-per-hour rate (\$12 per day) might appear rather high, this is paid to only one man of the five who compose the crews of the Ace loaders which he is using. The other four men are paid the laborers' rate of \$7.50 per day. This makes the average rate of the crew \$8.40 per man per day.

Some time after mechanical loading was started at the Petersburg mine of the Pike County Coal Corp., the

Ingle Coal Co., operating near Oakland City, put Joy loaders into one of its mines. These machines required crews of but two men each. It was only natural that the miners should demand a rate of \$12 for the machine operator, as was being paid at Petersburg. This was granted, and the other man paid \$8.14 as established by the Terre Haute agreement. These two men began to split their pay, making their earnings \$10.07 each. Later the men made an agreement with the company to have the rate split on the payroll.

### RATE ACCEPTED IN ILLINOIS

This rate of \$10.07 has spread from the Indiana mines into Illinois and is now the generally established pay for loading machine operators in the coal mines of that state.

The agreement made in conference and now in effect at the New Orient mine follows:

The undersigned commission created by action of Joint Group Board No. 3 to consider case No. 9,705 from the No. 2 Orient Mine of the C. W. & F. Coal Co., where the miners demand that the mine be put on a straight tonnage basis, met at the mine July 8 and 9 and agree as follows:

The company states that the working of the loading machinery at this mine is still in an experimental stage and for this reason we agree that it will not be possible at this time to place the mine on a straight tonnage basis in its entirety.

In view of the above we agree that the rate of pay for men operating loading machines will be \$10.07 per day. These men to be under direct instructions of the management and they will work full eight hours at whatever work they are instructed to perform. We would recommend in this connection that where a loading machine is broken down the men operating that machine be given either hand loading or other work for the remainder of the day.

The work being performed by the undercutting machine men is similar in character to that performed by all other cutting machine men throughout the district and we see no reason why these men should not be placed on a tonnage basis, which we agree will be done. The rate of pay per ton for under-cutting machine men to be thirteen cents per tons for all coal cut by them. It being understood that as conditions of employment in this mine differ from the same employment in other mines no specific territory will be assigned to machine men, but all under-cutting machine men will be under the direct instructions of the management.

Further, all under-cutting machine men shall remain in the mine and cut all places that are cleaned up in time to be cut. This is necessary to furnish coal for the loading machines, which under our joint agreement the company is entitled to work full eight hours per day. It is not intended by the above that undercutting machine men will be required to remain in the mine when there is reasonable assurance that they will not have more work to perform that day.

In consideration of the above the company agrees that the cutting machine men shall have the places they cut as near together as it is possible and that all cutting machine men will be treated fairly in this matter, no discrimination will be shown between cutting machine men under this system in assigning them places to cut. With the further understanding that if the men who operate the cutting machines are required to do other work in connection with their ordinary duties as cutting machine men they will have the right to take the matter up in line with section thirteen of the state agreement.

Inasmuch as the company states that it is still experimenting as to methods of mining and nothing definite has been decided upon at this time as to what method of mining will finally be adopted at this mine, we agree that, should the company decide to experiment on any other system of mining it will have that right to pay for same on a day-wage basis, provided the wages paid are equal to the established day-wage rates for similar labor in accordance with the award of the Bituminous Coal Commission.

It is also agreed that should the company desire to place any part or all of this mine on a regular hand loading basis

it will have that right and the miners will be paid for such system the same as at other machine-mining mines where the coal is hand loaded.

When two systems of mining are used—straight machine mining with hand loading and loading machine mining—it is understood that there will be no interference with the amount of coal or the number of pit cars loaded by the loading machine operators, it is further agreed no turn of cars will be kept between the loading machines themselves or against any other system of mining, thereby restricting the number of cars loaded by any loading machine to the same number loaded by the loaders working at any other system of mining. This does not mean that cars will be supplied to any part of the mine that is on hand loading in such few numbers that it will deprive the hand loaders of an opportunity to make a reasonable day's wage in line with Section twenty-eight of the state agreement.

The method of checking coal loaded that has been cut by undercutting machine men under this agreement is left to the machine men involved and to the management to work out some plan that will give the machine men due credit for all coal cut by each of them.

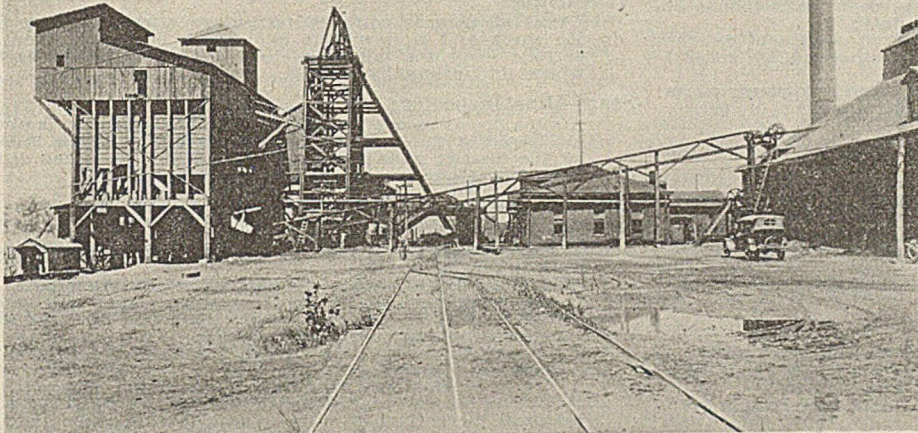
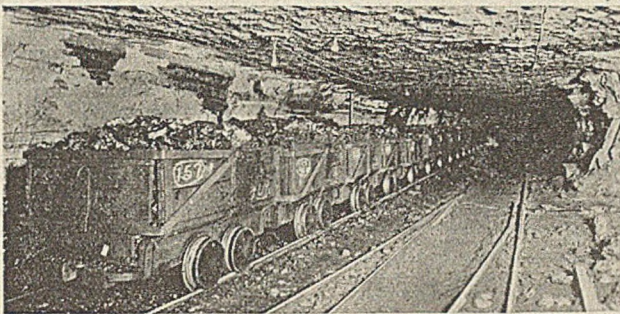
The rate of pay for men snubbing and drilling and shooting will be \$8.04 per day.

The above agreement is to become effective July 16, 1924, and extend during the life of our present state agreement. However, in case the company is unable to weigh the coal on and after July 16, the machine men and management will agree upon some system of payment until the coal can be weighed.

[Signed]: RICE MILLER,  
M. S. COLEMAN,  
GEO. MCARTOR,  
For the Operators.

HARRY FISHWICK,  
HARRY MADDEN,  
HUGH WILLIS,  
For the Miners.

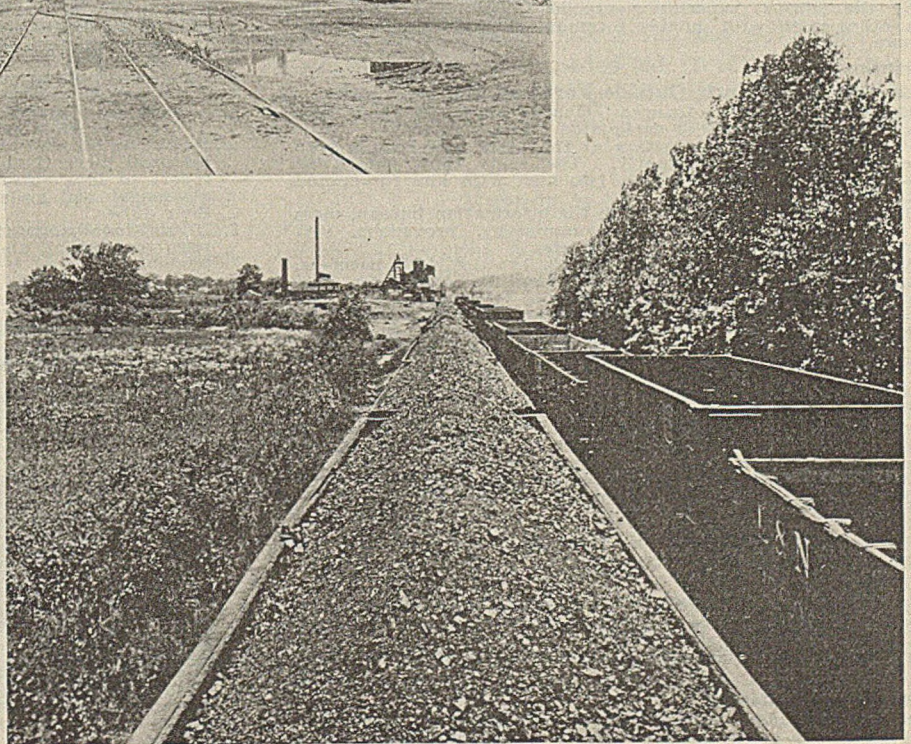
## Women Officials Run Old Kentucky Operation



*The underground illustration on the left is a view of the Eureka mine of the Reinecke Coal Co., near Madisonville, Ky. The coal at this mine (No. 11 seam) averages 6 ft. in thickness.*

*Top-works of the Reinecke company's Eureka mine. This operation produces 1,300 to 1,600 tons daily.*

*This is one of the oldest operations in the western Kentucky field, the Reinecke company being organized in 1886. Women are prominent in the company's organization. Mrs. Caroline Penn, of Belleville, Ill., is president and Mrs. Grace Reinecke, of Madisonville, Ky., is secretary and treasurer.*



## When Explosion Occurs Men Should Know What to Do

Davis Coal & Coke Co. Has Schedule of Procedure Which Is Intended to Reduce Confusion Around a Mine During Any Emergency

WHEN A MINE fire starts or an explosion occurs just what is every man connected with the mining company expected to do? In some cases nobody knows definitely. The Davis Coal & Coke Co., operating in Pennsylvania, West Virginia and Maryland, believes a definite program of action should be followed after every such occurrence and has worked out such a program and is instructing its men in it. This line of procedure is expected to cover every emergency so that there will be little danger of confusion and malfunctioning when trouble starts. Here is the Davis schedule in cases of mine fires or explosions:

### Vice-President and General Manager:

Should be immediately notified by the general superintendent or superintendent if general superintendent cannot be located. In case of mine fire or explosion, no matter how slight or serious, and he should be kept in touch with same at all times.

### General Superintendent:

1. Should be immediately notified by superintendent or foreman in case of mine fire or explosion, no matter how slight or serious, and he should take charge in accordance to specified duties at the scene of trouble.
2. Notify district mine inspector and chief of department of mines.
3. Notify U. S. Bureau of Mines, if thought necessary.
4. Clerk to remain in your office constantly and one other person for errand duty.
5. Arrange for an operator constantly at the telephone exchange.
6. Arrange for general supply clerk to be near the telephone at all times and an assistant for errand duty.
7. No oxygen breathing apparatus or oxygen equipment be sent from a division at any time unless authorized by general superintendent or safety director.
8. No official or apparatus men be sent from any plant unless authorized to do so by general superintendent or person designated by him.
9. Call any officials necessary for the work at hand.

### Duties

If possible, two men should be assigned to each position. One from the mine where accident happened and one from the nearest adjoining mine. They should be assigned under duties respective to their regular occupations, and designated by the general superintendent; i.e. outside foreman from another mine with outside foreman, checkman with checkman, etc.

### Superintendent:

#### Guards, Mine Clerk, Outside Foreman, Supply Clerk:

1. Rope off all mine entrances. Guards stationed along rope and under directions of designated official.
2. Provide general headquarters at the plant and keep a man at the telephone constantly. The mine clerk should be assigned this work and have two men with him for errand duty.
3. The outside foreman to provide for information bureau, mess rooms, emergency hospital, commissary, provisions, rest rooms, sleeping quarters, morgue, etc.
4. The supply clerk to provide for nails, brattice cloth, hatchets, axes, picks, boards, props, shovels, identification checks, electric cap lamps, flame safety lamps, telephones, wire and insulators, rope, blankets, stretchers, first aid cabinet, etc. Also provide for checkmen and lampmen to distribute: overalls, gum shoes, gum boots, gloves, caps, electric safety lamps, flash lights, etc.

### Electrician:

1. Pull all electric switches where electricity enters the mine and lock same in case of explosion.
2. See that fan is started and kept in operation. Have an attendant stationed at fan constantly.
3. Provide for telephone communications on outside with telephone man, and on inside of the mine if necessary.

### Machinist:

See that fan is in operating condition. Have an attendant stationed at fan constantly.

### Fire Chief:

1. Should assemble immediately all available fire fighting equipment, which should be on hand at the mines when needed as the recovery work progresses.
2. Report to superintendent. Consult him for additional apparatus.

### Other Superintendents:

1. Keep by telephone of your respective plants until advised to leave by the general superintendent, and upon leaving assign a responsible man, possibly the clerk, to your place and have another responsible official with him to perform any errand duty.
2. If called to scene, report immediately to general superintendent for your duties.

3. If advised to bring or send apparatus men, or other crews of five men other than apparatus men, have them report to director safety and inspection immediately.
4. If requested to send or bring other officials; have them report immediately to general superintendent.

### Check and Lamp Men: (stationed in lamp house with adjoining room)

1. Each man reporting to be equipped for entrance into the mine should be known to the check and lamp men as approved by the superintendent.
2. Each man should be given a check with number and this number, as well as his name, should be recorded in a book.
3. A record should be kept of all equipment issued to each man opposite his name and number in preparation to his entrance into the mine. For example; overalls, gum boots or shoes, caps, safety lamps, flashlights, etc.
4. Each man to carry a safety lamp should be qualified by a responsible official or he cannot so enter, and all safety lamps should be examined by the lamp man.
5. Upon the return of each man so equipped as above, the said equipment should be credited to the name and number that received it.
6. Each man should be examined carefully without exception for smoking articles or combustible material. This examination to consist of going through each pocket or any other place of concealment.
7. Each safety lamp should be of permissible approved lock type. Each man should be equipped with flashlight.

### Final Check Men: (stationed within the roped-off area at each entrance)

1. At least one check man at each entrance and stationed within the roped-off area.
2. Working crews should only be permitted to enter the mine in groups of five, one of whom should be in charge. The one in charge should be an official, or a person approved by the district mine inspector, but at least one official, who knows the mine or section where party is going, should be in the party.
3. All men entering the mine must be known to the checkmen or be approved by the superintendent.
4. Each man having a check with a number, and said number as well as name recorded in a book.
5. The time of entering and leaving the mine should be recorded in a book opposite his name and number.
6. Each man should be examined carefully without exception for smoking articles or combustible material. This examination consists of going through each pocket or any other place of concealment.

### Attendants:

Direct all persons equipped for entrance into the mine from the check and lamp men to final check men, and when said persons leave the mine, see to it that they report back to where they originally started.

### State Mine Inspector:

A mine fire or recovery work after a mine explosion is always in charge of the chief of the Department of Mines followed by the district mine inspector and assisted by other district mine inspectors upon their arrival at the mine.

### Director, Safety and Inspection: (assist the state mine inspectors)

1. Assemble all the available apparatus for rescue and recovery work in that division.
2. Call all apparatus men as thought necessary promptly.
3. If apparatus men be needed from other plants, call general superintendent immediately, who shall call the respective superintendents at plants designated.
4. If apparatus and men be needed from other divisions, call general superintendent.
5. Assist in picking well balanced crews of five men each for apparatus or other designated work, and do whatever possible until the arrival of state mine inspector, when they will report to him. Assist in making final check on men and equipment and assist the attendants and final checkmen in their duties.
6. If additional apparatus or men are needed other than company equipment and employees, call the general superintendent.
7. Call for ambulance.
8. Call physicians necessary and appoint one in charge.
9. Keep in touch with emergency hospital.
10. Make hospital arrangements with physician in charge at the plant.
11. Call Red Cross county chairman and arrange the duties.

### Official in Charge of Guards:

Report to superintendent and consult with him in regard to additional duties.

### Chief Engineer:

1. Arrange for a man in your office constantly. Report to general superintendent.
2. Immediately go to scene with maps showing regular coursing of air, regulators, overcasts and doors in same, stoppings and doors. Also have maps of adjoining mines.

### Chemist:

Arrange laboratory and report to general superintendent to co-operate with Bureau of Mines officials in handling samples, etc.

### Foreman Central Shops:

1. Immediately dispatch a man or go yourself to plant and assist machinist and electrician on fan.
2. Arrange for men constantly on duty in the shop.
3. Report to general superintendent.

In case of mine fire or explosion the above procedure must be carried out in detail by those designated for specific duties.

R. P. MALONEY,  
Vice-President and General Manager.

## New Coal Cleaning Plant Has A Pneumatic Process

Gulf Smokeless Coal Co. at Covell, W. Va., Sizes  
Output Carefully Before Putting Four Small  
Classifications on Air Tables

By Ray W. Arms

Contracting Engineer, Roberts & Schaefer Co.,  
Chicago, Ill.

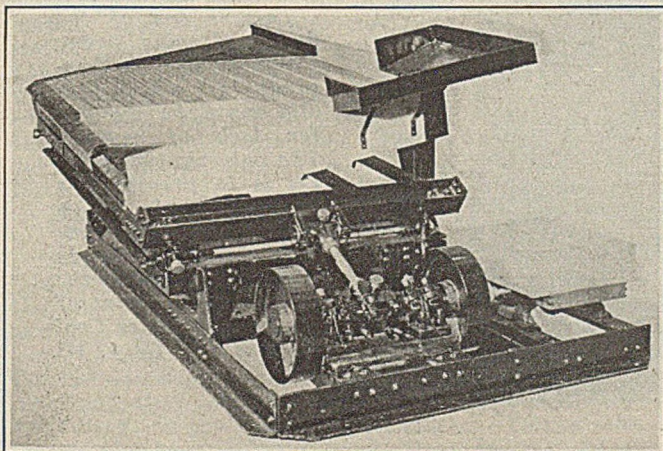
A new coal cleaning plant employing the pneumatic process has just been completed for the Gulf Smokeless Coal Co. at Covell, W. Va. This plant is located on the Virginian R.R. midway between Princeton and Mullens on a steep mountain grade now being electrified by the railroad. Several novel features are embodied in the design of this cleaning plant, chief among them being the use of a new type of horizontal screen for the preparation of sizes for the cleaning tables, and a new type of air concentrator.

Since the advent of pneumatic cleaning, opinions of its exploiters as to the necessity for closely sizing the coal before cleaning have been divided, some maintaining that more efficient machines can be built to clean coal with less sizing and others believing that close sizing is essential for good results. The latter view is fostered by the designers of this plant who also have firmly held as a basic principle that air itself is, after all, the separating agent and no mechanical nicety of construction could possibly increase the effectiveness of air as a separating medium beyond its natural limitations. Furthermore, it is recognized as a principle that devices involving simultaneous classification and concentration require more air-power and cannot be as accurate as those preparing the coal by sizing screens.

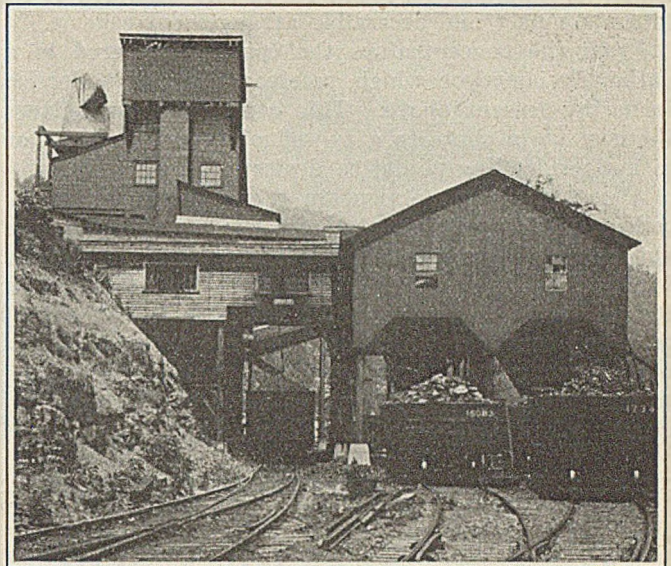
### SCREENING OPERATION SIMPLIFIED

Following out this principle, efforts have been made to simplify the screening operation as much as possible commensurate with sufficient accuracy to arrive at the best cleaning results. The outcome of three years of research and experimentation with that end in view is the Arms horizontal screen, a high-speed shaking screen with a motion capable of propelling the coal along a level or nearly level surface.

This screen as installed at Covell has an upper deck covered with a large-mesh screen cloth over which an oversize finished product is removed, and a lower deck



Arms Air Concentrator for Cleaning Small Sizes of Coal  
at Covell, W. Va.



Tipple and Air Cleaning Plant of Gulf Smokeless Coal Co.  
at Covell, W. Va.

through which a finished undersize is partially removed. The intermediate product is unfinished and is passed on to a second screen, the top deck of which is equipped with wire mesh sufficiently smaller than the first screen to make the next cleaning size. The lower deck of the second screen is provided with the same mesh cloth as the first screen. The coal then passes to the third and last screen with a still smaller top screen and the same size lower screen. From these three screens five finished products are removed: one oversize each from the three top screens, oversize from the third bottom screen and undersize from all three lower screens. Patents are now pending on this screen and screening system.

The coal at Covell is rather characteristic of the district, the impurities being slate and a high-ash cubical coal. Previous experiments had determined the fact that the coal smaller than  $\frac{1}{4}$  in. was quite free from these impurities and needed no treatment on the air concentrators, hence it was decided to bypass all coal smaller than that size and air clean all coal between 2 in. and  $\frac{1}{4}$  in.

### METHOD OF SIZING COAL

Coal is brought down the hill by a retarding conveyor and fed to a horizontal picking table screen which first removes the 4-in. lump coal for hand picking on the top deck of the screen. The 4-in. undersize is further screened through 2-in. perforations on the lower deck which delivers the 2x4-in. egg coal to picking wings along the side of the screen where it is carefully hand picked.

The 2-in. undersize from the screen is delivered by a chute to the boot of an elevator which lifts it to the top of the dry cleaning plant. From this elevator it is fed by a chute directly to the three Arms sizing screens which divide the coal into five sizes: four for cleaning over the air concentrators and the fifth to be bypassed without further treatment. The four sizes to be cleaned are passed to small pockets directly over the four cleaning tables to which they are delivered by special chute feeders.

The cleaning is done on Arms air concentrators. This concentrator is a newcomer in the field of air cleaning,

simple and rugged in construction and designed to fit into a compact and accessible arrangement scheme.

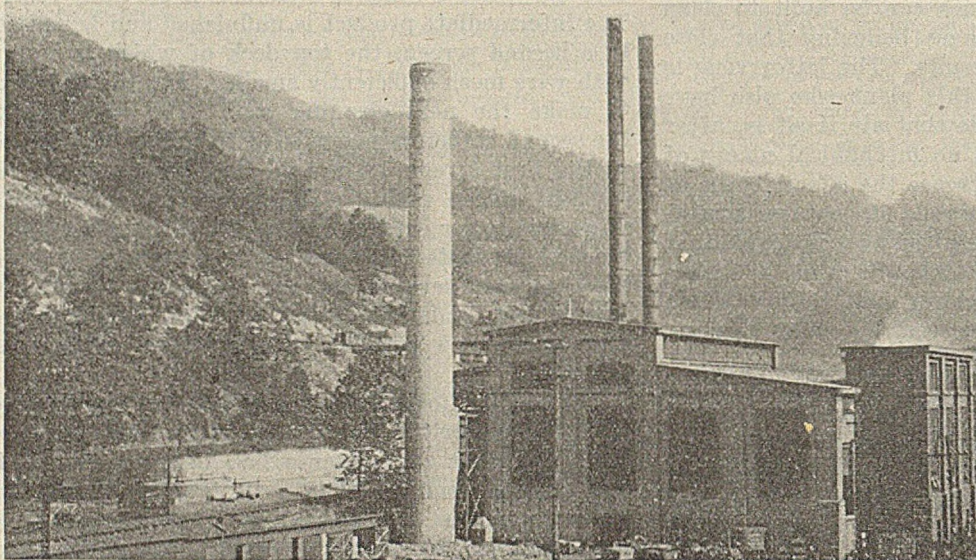
From the concentrators the coal is delivered to a gathering conveyor which receives also the undersize from the screens above. This conveyor then delivers the coal via a chute to a run-of-mine loading boom or to a slack loading chute, as desired.

A separate compartment in the gathering conveyor collects middlings products from the air concentrators and returns them to the boot of the slack elevator by which they are returned to the plant for retreatment. Refuse from the four cleaning tables is fed by chutes to a belt conveyor which delivers into a second stacking belt conveyor. Arrangements are now being made to load the cleaned nut coal, as made on the first two cleaning tables, directly to railroad cars.

Considerable progress has been made in the collection of dust in air cleaning plants as evidenced by the results at Covell. This plant is remarkably free from dust both on the cleaning table floor and at the screens. The reasons for this improvement are, first, that a more efficient application of suction to the critical points has been made; second, the screens remove the fine dust-bearing undersize more perfectly; third, a new type of table dust hood controls more effectively than heretofore the air currents issuing from the cleaning tables.

The Covell plant handles nut and slack coal smaller than 2 in. at the rate of 150 tons per hour. Chemical results of the cleaning are not yet available but inspection of the products indicates that the impurities are effectively removed from the coal with an inconsequential loss of coal in the refuse.

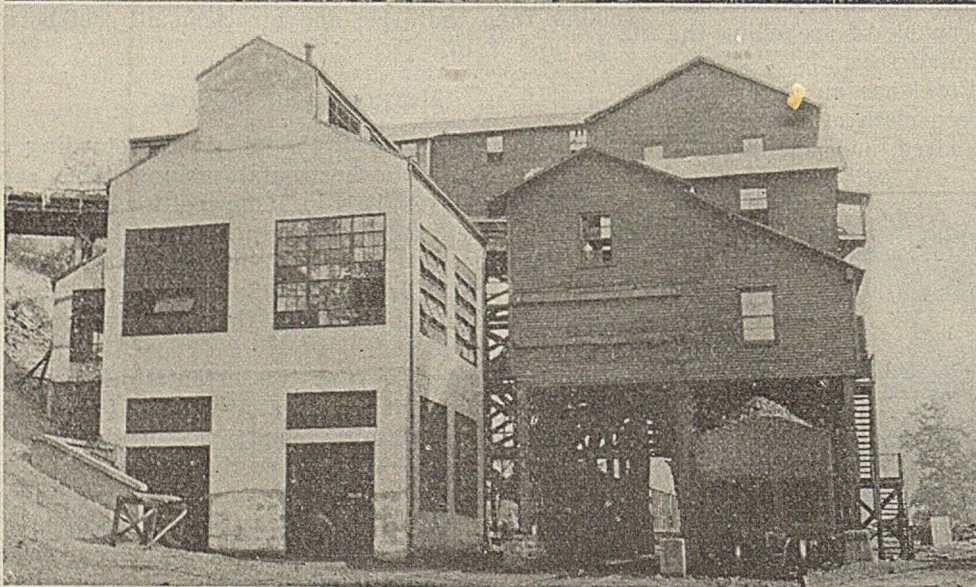
## *Newly Equipped Power Plant of Fordson Coal Co. In Kentucky Pulverizes and Burns Low-Grade Coal*



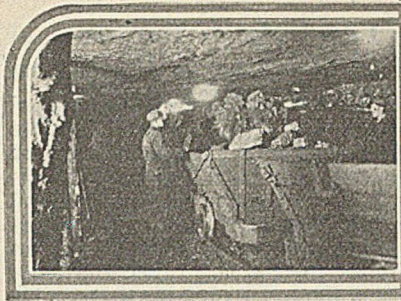
*This central power plant for the Stone division of the Fordson Coal Co. at Stone, Ky., has been equipped for burning pulverized laminated slate and coal. The old stoker-fired boilers at the plant have been replaced by three new ones, each of 600-hp. rating. The first was put into service Aug. 1. Natural draft is provided by the new brick stack.*

*The lower photograph shows the new steel-and-concrete powdered fuel mill standing beside the tippie at Stone. The pulverized product is borne to the power plant through 680 ft. of 4-in. pipe which is installed underground. The conveying capacity is 15 to 20 tons per hour.*

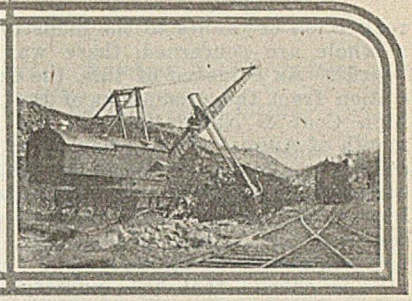
*This is one of the first coal mine power plants to use the low-grade fuel which usually must be dumped for lack of market. The pulverization process is to prevent this ordinary waste. This method of turning bone into power is already in successful use at the central power plant of the United States Coal & Coke Co., Gary, W. Va.*







## News Of the Industry



### Pinch Near in Anthracite Strike Indicated by Recent Developments; Amenities by Lewis and Warriner

A number of developments which took place last week in connection with the hard-coal strike marked a decided change from the inactivity prevalent for several weeks. In making a bid for indorsement of the strike at the annual convention of the American Federation of Labor at Atlantic City, Oct. 14, John L. Lewis, president of the miners' union, charged the anthracite operators with mulcting the public of sixteen to twenty million dollars annually by the adoption of the new sizing standards, which he alleged had been forced upon retailers. He also pictured a harsh winter for the public due to a shortage of coal.

Arrangements have been made to suspend ordinances prohibiting the use of soft coal in New York City as well as in upstate cities of New York and New Jersey, in order to meet any possible emergency due to a dearth of anthracite.

Samuel D. Warriner, president of the Lehigh Coal & Navigation Co. and chairman of the Anthracite Operators' Conference, denied Lewis' charges in a statement made at Harrisburg, Pa., Oct. 15. Speaking before the Pennsylvania State Chamber of Commerce, Mr. Warriner said that the industry decided last April to standardize the sizes of coal at the request of the retail trade.

The American Federation of Labor, at its annual convention in Atlantic City, Oct. 14, indorsed the anthracite strike, unanimously passing a resolution approving "the efforts of the mine workers in their demands for increased wages, improved working conditions and complete recognition of the union." The Executive Council of the A. F. of L. also was directed "to co-operate in every possible and practical way to the end that the anthracite mine workers achieve complete success in their efforts."

#### Public Has Been Fooled—Lewis

"During the past sixty days," said Lewis, "the people have been told, first, that they need not fear a suspension, and then that there was ample coal on hand. Foolish public men have created for the American people a fool's paradise, and they are due for a fool's awakening. If the mines were to start tomorrow it is extremely unlikely, from present prospects, that production and distribution would catch up with fuel

requirements before the coming of next spring."

In the meantime, he said, wholesalers and retailers would be "making hay while the sun shines." He said chestnut coal was already selling at \$18 a ton in Philadelphia and as high as \$19.50 on Long Island, which he declared, represented advances of \$4 to \$5 a ton over the price listed at the beginning of the present suspension, Sept. 1.

"It will be sold at an additional increase far in excess of these figures," he said.

As to substitute fuels, Mr. Lewis quoted engineers as saying the by-product coke industry was able to produce only enough of that commodity to care for its own needs, and could not increase facilities to meet additional demands from hard coal users. Scraping of anthracite-burning equipment for installation of oil burners he called prohibitive to the wage earners in most sections of the anthracite market.

#### Attacks Use of Soft Coal

Soft coal, as another substitute, was dangerous, he said, because in homes where chimneys were built for hard coal, burning of bituminous coal "will mean the wholesale asphyxiation of families." Furthermore, he said, railway facilities would be unable to transport enough soft coal into the 60,000 communities commonly using anthracite to meet the needs, "even if they could burn it."

Reviewing the controversy between the miners and operators up to the breaking off of negotiations at Atlantic City on Aug. 4, Mr. Lewis announced that "there is not now, nor will there be later, any question of the mine workers faltering in the step they have undertaken or departing from the policy which they have laid down. They have every appreciation of the responsibilities of such a contest, but they believe that thrice armed, indeed, is he whose cause is just, and they have decided to carry on, come what may."

Mr. Lewis said 70 per cent of the 158,000 anthracite mine workers averaged between \$4.62 and \$5.96 per day and the remaining 30 per cent of skilled contract miners averaged substantially less than \$2,000 a year.

Yet, he said, in 1924 30,241 men were injured and since 1870 "the anthracite industry has butchered 1,210,000 of our people."

#### Won't Settle Anything by Strike, Says Debs

Eugene V. Debs, chairman of the National Socialist Party, addressing an audience of about 1,000 persons in Scranton, Pa., Oct. 16, condemned the suspension of mining in the hard-coal region. "My sympathies are with the miners," he said. "They are engaged in a sharp, fierce, trying struggle. They will be tested to the core, yet I realize that no matter how the strike turns out it will not settle anything. There will be a temporary agreement and after that agreement has expired there will be another strike and another strike. We have had strikes for fifty long years," he continued, "and we will continue to have them as long as the mines are privately owned." Following an argument for government ownership of the mines and other industries, Mr. Debs added, "I do not like strikes. I am not fond of riots and disturbances and bloodshed. All of my life I have opposed violence and brute force."

Debs' attitude on the suspension came somewhat as a surprise to the mine workers who heard and read his address. It was thought that he would urge a continuance of the "strike" policy of the United Mine Workers and give it his indorsement.

In reply to Lewis' charges S. D. Warriner said that "when a man who has arrogantly declined to face the facts in the anthracite situation by submitting them to arbitration takes it upon himself to vilify the industry in words which are so far removed from the truth as to approach libel and actual falsehoods a reply is definitely required."

Last April, when the industry standardized its sizes of coal, he said, "some sizes were made slightly larger, some were made smaller. This was done at the urgent request of the retail trade, who desired more completely to conform to the requirements of their customers. The step was only taken after the operators had made careful experiment as to the feasibility of the changes suggested, had subjected the new sizes to most careful analytical and engineering tests, and had been assured that the public would be protected in any action that might be taken.

"So far as the results obtained in

realization or profits to the industry as a whole are concerned, there was no benefit. As evidence of this, the realization from the production of the Lehigh Coal & Navigation Co. for the month of August of this year, after the change was made, was \$5.68 per ton, as compared with \$6.14 per ton average realization from the production of our company for August of last year, before the change was made.

"The charge that the industry has been a slaughterhouse, where since 1870, 1,200,000 employees have been 'butchered,' is equally false. He implies, at least, if he doesn't say, that an average of 2,000 men annually have been killed in the anthracite industry. The statistics of the Mine Inspection Bureau of the Commonwealth of Pennsylvania show that since 1870 the fatal accidents total 23,745, or an annual average of 431.7. The total number of fatalities in the fifty-five years from 1870 to 1924, inclusive, was a little more than the average number per year which Mr. Lewis states as the number 'butchered.'

"Relative to Mr. Lewis' remarks that the public is lulled into a fool's paradise and due for a fool's awakening, not much more need be said than that it is a palpable effort of a man to manufacture a panic for his own selfish purposes."

Major General Charles W. Berry, chairman of the New York State Coal Commission, recently created by Governor Smith, said last week that \$16 a ton was a fair price for hard coal in the boroughs of Manhattan and the Bronx, and urged the public not to pay more except in the outlying districts.

After a conference with an advisory committee composed of Eliot Farley, representing the anthracite operators, Roderick Stephens, for the retail coal dealers, and J. W. Searles and Charles B. Ebbert, representing the bituminous coal producers, General Berry issued a statement, in which he said that "there is an ample supply of soft coal available for the New York market and retail coal dealers are advised to avail themselves of such opportunity."

A threat to publish the names of coal profiteers is expected by the commission to keep prices down.

### Rioters Injure Ten and Wreck Washery

The first disturbance of a serious nature in the hard-coal field since the suspension of mining operations on Sept. 1 occurred Oct. 17 at Throop, near Scranton, when about 700 mine workers, using bricks, stones and blocks of wood, stormed Carlucci's washery at that place and practically wrecked the structure, causing several thousands of dollars damage. Ten men were injured in the rioting.

The demonstration resulted from the refusal of the owner of the operation, Frank Carlucci, of Scranton, to suspend work at the plant. The owner of the washery, along with those of other small operations, was requested by District President Rinaldo Cappellini, of the United Mine Workers, to cease operations during the strike.

Following the attack the district



William Green

The former international secretary-treasurer of the United Mine Workers was re-elected president of the American Federation of Labor by acclamation at the annual convention of that organization, held in Atlantic City, Oct. 12-16. His entire executive council also was returned to office. Among those elected as delegates to the British Trades Union Congress was Frank Farrington, president of the Illinois miners' union.

union chief issued the following statement from union headquarters in Scranton: "I regret the action of the men who yesterday gathered at the Carlucci washery in Throop. The men were not authorized to take such action, as it is the wish and hope of the union to carry out the suspension in an honorable and peaceful manner."

The U. S. Engineers for the Pittsburgh district, in their report for September, just issued, show the coal movement on the Monongahela River was 1,655,340 tons, and coke, 79,818 tons; on the Ohio River, coal 374,586 tons and coke 39,000 tons; on the Allegheny River, coal, 88,350 tons and coke 18,000 tons.

### W. H. Turner, Mine Foreman, Believed to Be Dead, Is Arrested for Murder in Kentucky Explosion

William H. Turner, formerly foreman of a coal mine at McCarr, Ky., was arrested as a fugitive from justice Oct. 15 when he arrived at New York on the United American liner *Resolute*, from Hamburg. He was taken to Police Headquarters and held for Sheriff William Johnson of Pike County, Ky., who sought him with a first degree murder warrant. Sheriff Johnson came to New York in response to a wireless message from Turner saying that he wished to give himself up, according to the police.

The Sheriff and other authorities of Pike County had been looking for Turner since he was indicted as the result of an explosion on Jan. 17, 1925, in the Auburn Mine at McCarr, in which two miners were killed. One mangled body had been identified as that of Turner, according to the police, and \$85,000 in insurance on Turner's life was collected by relatives.

Turner is reported to have said that after the explosion in the mine he was met by a relative by marriage who plied him with whiskey, placed a pistol at his side and told him to take the

### New Low-Volatile Rate to New England in Operation

The Norfolk & Western Ry. placed in operation on Oct. 15 a new schedule of all-rail rates on prepared sizes of bituminous coal from low-volatile districts in West Virginia to New England and other Eastern points. The Interstate Commerce Commission issued an order directing the new rates, and these rates are expected to make it possible for the West Virginia producers to enter the New England market in competition with anthracite for the first time.

The new rates to New England points are as follows, per gross ton:

Massachusetts—Lowell, \$7.10; Waltham, \$7.10; Worcester, \$5.83; Cambridge, \$6.70; Fall River, \$5.83; New Bedford, \$5.83; Springfield, \$5.45; Boston, \$6.70 (Boston & Maine), \$5.58 (New Haven); Haverhill, \$7.10; Lynn, \$7.10; Salem, \$7.10; Chelsea, \$6.70, and Amesbury, \$7.20.

New Hampshire—Manchester, \$7.20; Concord, \$7.35; Bennington, \$7.20, and Portsmouth, \$7.20.

Connecticut—Norwalk, \$4.69; New Haven, \$4.69; Bridgeport, \$4.69, and Hartford, \$5.45.

Rhode Island—Providence, \$5.45.

Maine—Portland, \$7.20.

The low-volatile soft-coal producers believe that they have a permanent substitute for anthracite, which each year will cut heavily into anthracite sales in New England, as it has already in other parts of the country.

Modification of the present bituminous rate structure so as to "more equitably" protect the people and the bituminous coal industry of Pennsylvania is asked in a resolution adopted at Harrisburg, Pa., Oct. 15, at the seventh annual meeting of the Pennsylvania State Chamber of Commerce.

first train that night out of McCarr. Another relative is alleged to have bought passage to Norway for himself and for Turner. Turner maintained he did not know what had become of the insurance and that his wife, who was a \$25,000 beneficiary, was in no way concerned with the scheme by which one of the victims of the explosion was identified as Turner.

Turner was taken back to Kentucky Oct. 16 by two deputy sheriffs on extradition papers charging him with murder in connection with the death of two men in the explosion of last January. Before the officials started with him for Kentucky, however, his wife, Margaret May Turner, who the prisoner had declared was in no way connected with the conspiracy, identified her husband in New York police headquarters.

The Pike County Circuit Court Clerk's office announced Oct. 19 that indictments had been returned by the Grand Jury against Joe Jack, Jr., Turner's brother-in-law; Joe Jack, Sr., Mrs. William H. Turner and Mrs. F. F. Farley, a sister of Turner.

# Uncertainty Regarding Attitude of Hard-Coal Interests Deters Stocking Of Substitutes by Retail Dealers

By Paul Wooton

Washington Correspondent of *Coal Age*

To make good the deficit in anthracite it will be necessary to provide substitutes from this time forward at the rate of 1,500,000 tons per week. As no such tonnage is going into distribution in the anthracite-consuming region at this time it is apparent that cumulative requirements soon will have to be met at a much higher rate. Such a gigantic task, it is apparent, can be accomplished only with the whole-hearted cooperation of the retailers.

One of the reasons why the Eastern retailer has hesitated to stock up heavily with substitutes for domestic anthracite is the uncertainty as to how his activities in introducing substitutes will be regarded by the anthracite interests. He realizes that all the propaganda urging the use of substitutes has not weakened the preference of the majority of householders for anthracite. The minute anthracite begins to move again the retailer will want his full share. He regards his allotments, if he has "company" connections, as his principal business asset. Moreover, he does not want to be caught with a surplus of bituminous coal which he would have to sell at a loss.

Officials in New England declare that the feeling of uncertainty among the retailers is an important factor in discouraging the purchase of other fuels. To overcome that uncertainty it is being suggested that the states concerned call meetings of the retailers for a conference with the anthracite distributors, with the idea of working out a definite program of distribution to apply as soon as the strike is over. A definite assurance doubtless could be obtained that as soon as work is resumed distribution will be made in accordance with the 1922 allotments.

Some such plan as this, it is believed, would remove the uncertainty and enable the retailers to make definite plans and to place orders at once for bituminous coal. The orders for current shipments could be made subject to cancellation a certain number of days after the resumption of anthracite production. By this means the elaborate machinery of distribution throughout the anthracite-using region would be thrown open to move substitutes.

If the anthracite interests helped bring about such an understanding it would help them to realize their often-repeated wish that the government allow the industry to settle its own troubles. State and federal executives can stay out only so long as substitutes are available.

As this is written six weeks of the strike has passed. Federal officials appear to be as grimly disposed as ever to keep hands off. The anthracite operators show no signs of weakening. The belief is growing stronger that

Congress is likely to prescribe some form of regulation for coal. The record shows clearly that drastic legislation goes through promptly in times of emergency—legislation that would have no chance under normal conditions.

Despite the formal action of the American Federation of Labor in approving the strike, it is said that some labor leaders feel that it was a great mistake to take that action. President Green is thought to share that opinion.

## Samuel A. Taylor May Head A.I.M.E. Next Year

Samuel A. Taylor, well known Pittsburgh consulting coal mining engineer and operator, may be president of the American Institute of Mining and Metallurgical Engineers for 1926. Official notice of his nomination for the office was revealed at a dinner given in the University Club, Pittsburgh, on Oct. 19 by the Pittsburgh section of the Institute in honor of President Reynders and Secretary Bain. President Reynders made the announcement.

The dinner was attended by twenty-five members and an equal number of ladies of the auxiliary. Graham Bright, chairman, presided as toastmaster. Secretary Bain emphasized that the chief aim of the Institute is the more liberal exchange of technical information, pointing out the part such an exchange plays in the welfare of present and future generations. Many engineers, said he, do not realize the importance of revealing and recording technical and practical knowledge. There is grave danger that knowledge not opportunely recorded may disappear and be forever lost, as much of it has in the past.

F. L. Bishop, dean of the mining and engineering unit of the University of Pittsburgh, reported on the progress being made by the committee appointed by the Carnegie Corporation for study to promote and guide engineering and mining education and training. The study has been conducted over a period of eighteen months and is showing signs of achievement. The corporation has appropriated \$108,000 for these studies. Dean Bishop would have national engineering societies professional not only in name but in membership also. It is not right, said he, that one year of practical experience should carry as much weight as four or six years of engineering training in college toward entrance into what we term professional societies.

The gross tonnage of bituminous coal (revenue) transported by the Reading Company during August, 1925, was 1,724,894, compared with 1,182,624 tons in August, 1924.

## Fuller Scraps Anthracite; Will Use Soft Coal

Governor Alvan T. Fuller, of Massachusetts, the moving spirit in the plan of New England Governors to solve the fuel problem of the Northeast by substituting soft coal for anthracite, has had thirty tons of hard coal removed from his cellar. The coal, which was stored for winter use, is being replaced by bituminous.

"The anthracite industry would freeze us to death," the Governor told thirty-five Southern business men here on a "good-will" tour. The group included several coal operators from the West Virginia coal field whom he asked to cooperate in his drive. The Governor has urged the general public to "strike off the shackles of bondage" in which New England is held by the hard-coal industry. He declared his action typical of the fighting mood prevailing in New England in regard to the coal situation.

He said that he had received a telegram Oct. 16 announcing the shipment from West Virginia of a trainload of low-volatile bituminous coal to New England for household use.

## Pinchot May Call Special Session on Giant Power

Talk of a special session of the Pennsylvania Legislature during the coming winter has been revived at the Capitol, at Harrisburg. Governor Pinchot has spoken of such a possibility but has never been definite in his attitude in the matter. Giant power would be one of the objects of a special call should he issue one. All of the twenty-six giant power bills sponsored by the Governor died in committee during the regular 1925 session.

It is not considered likely that a call would be sent out for a special session until after the November election, as the Governor has been accused of permitting the special session talk to continue for political purposes only. His opponents assert that if a call is issued it will be to foster the Governor's Senatorial aspirations.

Charles Penrose, an electrical engineer of Philadelphia, speaking before the Pennsylvania Chamber of Commerce at Harrisburg, Oct. 15, assailed Governor Pinchot's giant power proposal as "a fallacy and menace," declaring that there were no mines in Pennsylvania large enough to supply the amount of coal that would be required by a huge power station to make possible the low electrical production cost estimates given in the giant power report submitted to Governor Pinchot by the Governor's survey board.

Certain proposals in the giant power project, he said, warranted the application of the term "fantastic," which has been applied.

### Nova Scotia Coal Inquiry Soon to Be Under Way

Sir Andrew Rae Duncan, who has been chosen by the British Government, at the request of the Government of Nova Scotia, to head the commission of inquiry into the coal mining industry of the latter province, planned to sail from England last week, and it is expected the inquiry will be started before Nov. 1, according to information given out by E. N. Rhodes, Premier of Nova Scotia.

The Government of Nova Scotia has been advised, stated Mr. Rhodes, that W. Armour, of the staff of the British Department of Mines, will accompany Sir Andrew, as a technical expert, to assist in the work of the commission. Mr. Rhodes also announced that T. J. Brown, Deputy Minister of Mines for Nova Scotia, will be appointed secretary to the commission.

This completes the personnel of the commission, which will include Sir Andrew Rae Duncan, London, Eng., chairman; Dr. H. P. MacPherson, president of St. Francois-Xavier University, Antigonish, N. S.; Hume Cronyn, London, Ont., former member of Parliament for that city; T. J. Brown, Deputy Minister of Mines, Nova Scotia, secretary; W. Armour, of the British Mines Department, technical expert.

That the coal industry of Nova Scotia is now well on the way to recovery and stabilization as a result of the truce negotiated by the Rhodes government two months ago, which terminated the five months disastrous wage war between the miners and the British Empire Steel Corporation, is evidenced by the signs of returning prosperity in the mining districts of Cape Breton as well as in the mainland colliery towns. The mines have been operating with scarcely a break since Aug. 9, the day following the signing of the new wage agreement.

With the exception of mines Nos. 6, 15, 11 and 21, practically every colliery in the Cape Breton field is working steadily; the daily average output comparing favorably with past production records. The average daily output for the past several weeks is in excess of 20,000 tons though on several occasions a much larger tonnage has been hoisted.

### "Hero" in Tight Place

While Mr. Caillaux, French Minister of Finance, went home something of a hero for having resisted the "greedy" demands of the Americans, it is becoming increasingly apparent that the American commission maneuvered him into a position that is going to be hard to defend. If the French refuse to accept the American proposal to pay \$40,000,000 for five years, they must decline to pay an amount which they themselves offered to pay.

It is known that French industrial interests have applied recently to American bankers for large loans. Since it is apparent that the administration would look with disfavor on private loans pending an agreement as to the debt, it is probable that none will be made until satisfactory settlement is made. This will mean strong pressure at home for action.

### Rehearing Denied in Cement And Flooring Cases

The U. S. Supreme Court on Oct. 12 refused to grant a petition for rehearing filed by the government in the Maple Flooring Manufacturers' Association and the Cement Manufacturers' Protective Association cases. This action definitely closes the proceedings.

It was in these two cases, decided against the government, that the Supreme Court last spring laid down its important decisions defining legal and illegal trade association activities, particularly with reference to the collection and dissemination of statistics, and thereby removed the uncertainty which has surrounded such association work for several years.

Immediately after the decisions in the spring the Department of Justice announced that it would accept the principles laid down by the Court but would move for a rehearing in these specific cases on the ground that the evidence showed that the two associations had committed illegal acts within the principles announced by the Court.

### Midland No. 1 Resumes With 107 Men

One hundred and seven men went to work at Midland Mine No. 1 on Oct. 15, when the Pittsburgh Coal Co. reopened it for operation at the November, 1917, wage scale. The mine, which is 27 miles from Pittsburgh and 3 miles from Canonsburg, Pa., is the first of this company in the Panhandle district to resume operations. Banning Nos. 1 and 2 being in the Youghiohony Valley. This is the seventh mine of the company in operation at the 1917 scale, including four mines in the Pomeroy district of Ohio, which have made a successful record.

The tippie of the Midland mine is one mile from Houston, Pa. Fourteen deputies of the Sheriff of Washington County are on duty at the mine property, but they do not expect any disorder. The normal capacity of the mine is about 400 men. H. M. White is division manager, in charge of operations, and John Bertram is superintendent. Production of coal is expected to start within several days.

Banning No. 2 is running approximately 1,000 tons of coal a day, with 264 men at work. This was the first mine opened, on Aug. 16. Banning No. 1, opened in the middle of September, is producing an average of 500 tons a day.

The Midland mine was closed in November, 1923. The company still has 37 idle mines in the Pittsburgh district. Any one of these will be reopened, according to company officials, as soon as a sufficient number of former employees in any district evince a desire to return to work.

The By-Product Coke Corporation, the largest producer in the United States of commercial coke, having plants at South Chicago, Ill., has sold a new issue of \$5,000,000 first mortgage 5½ per cent gold bonds to Lee, Higginson & Co. and the Continental & Commercial Trust & Savings Bank. The bonds are priced at 94½, are dated Nov. 1, 1925, and are due Nov. 1, 1945. The purpose of this issue is to effect a saving in interest charges by refunding existing funded debt, chiefly bearing 8 per cent and 6 per cent interest; two issues of mortgage bonds, in fact, have been called in.

## Bituminous Coal Loaded Into Vessels at Lake Erie Ports During Season to End of September

(In Net Tons)

Ports	Railroads	1925			1924			1923		
		Cargo	Fuel	Total	Cargo	Fuel	Total	Cargo	Fuel	Total
Toledo	Hocking Valley	6,046,551	174,963	6,221,514	4,867,888	143,569	5,011,457	3,584,242	108,355	3,692,597
	Big Four	1,156,949	6,664	1,163,613	9,036	95	9,131			
	N. Y. C.-Ohio Central Lines	727,286	55,832	783,118	44,905	1,412	46,317	1,084,724	33,778	1,118,502
Sandusky	Baltimore & Ohio	2,406,714	72,900	2,479,614	1,445,978	43,951	1,489,929	2,161,529	62,473	2,224,002
	Pennsylvania	4,192,755	124,872	4,317,627	2,792,109	85,872	2,877,981	2,295,788	72,405	2,368,193
Huron	Wheeling & Lake Erie	498,275	24,145	522,420	346,853	28,030	374,883	1,113,192	43,238	1,156,430
	Baltimore & Ohio	\$815,041	105,445	920,486	1,422,392	112,642	1,535,234	2,537,212	141,950	2,679,162
Lorain	Pennsylvania	275,650	131,382	407,032	1,161,296	136,106	1,297,402	1,400,296	151,749	1,552,045
	Erie	18,138	1,252	19,390	244,156	8,109	252,265	590,203	26,781	616,984
Fairport	Baltimore & Ohio	580,925	77,860	658,785	402,002	69,646	471,648	586,570	56,185	642,755
	New York Central	279,486	68,146	347,632	702,322	90,587	792,909	2,568,081	198,358	2,766,439
Ashtabula	Pennsylvania	572,648	69,691	642,339	875,088	62,676	937,764	1,564,206	69,647	1,633,853
	Bessemer & Lake Erie	890,885	173,612	1,064,497	1,251,550	162,466	1,414,016	2,099,299	178,745	2,278,044
Conneaut	Pennsylvania	207,545	44,488	252,033	461,396	63,316	524,712	475,659	63,970	539,629
Total		18,668,848	1,131,252	19,800,100	16,227,171	1,008,477	17,235,648	22,061,001	1,207,634	23,268,635
Storage Loading		\$33,017	1,048	34,065	\$182,060	4,940	187,000			

\* Coal loaded into vessels in December, 1923, after close of navigation and forwarded from Lake Erie Ports during 1924.

† Coal loaded into vessels in December, 1924, after close of navigation and forwarded from Lake Erie Ports during 1925.

‡ Includes 42,005 tons cargo and 2,798 tons fuel dumped at Huron on account of fire at Lorain, June 12, 1925.

Compiled by Ore & Coal Exchange, Cleveland, Ohio; H. M. Griggs, manager.

## Output Higher in Strike Zone Of Northern West Virginia Since Lewis' Call to Non-Union Miners

Non-union coal production shows signs of increasing since the second strike call was issued to the non-union miners of northern West Virginia on Sept. 26, when John L. Lewis, international miners' union president, visited Fairmont. In the first four days of last week the non-union mines produced 6,821 cars of coal, an increase of 184 cars compared to the first four days of the previous week. Non-union output all over the field is showing increases, although no production records have been established recently.

The open-shop tonnage is especially strong on the Monongahela Ry. and the Monongah Division of the Baltimore & Ohio. Non-union mines along the Monongahela produced 537 cars Oct. 15, the largest daily tonnage reached there since Aug. 11. Non-union production was increasing on the Wyatt-Bingamon and Helen's Run branches of the Western Maryland until a car shortage developed.

### Union Production Increases

Union production in Northern West Virginia also showed signs of increasing slightly last week, when 1,157 cars were loaded in the first four days, or 48 more cars than in the corresponding period of the previous week. More union coal is being produced on the Monongahela Ry., the plants working under the Jacksonville agreement having loaded 222 cars on Oct. 14, which is the heaviest since the strike started, on April 1. At present the union tonnage on the Scott's Run branch of the Monongahela Ry. exceeds the open-shop tonnage.

Mines in northern West Virginia produced 569,200 net tons of coal in the week ended Oct. 10, compared to 531,400 tons in the previous week, 514,000 tons in the corresponding week of 1923 and 398,250 tons in the corresponding week of 1924. The non-union mines in the field produced 9,782 cars of coal in the week ended Oct. 10, compared to 9,146 cars in the preceding week. Union mines loaded 1,587 cars, compared to 1,382 cars in the previous week.

Injunctions against the United Mine Workers of America and its officers and other members granted on behalf of virtually every mine in a belt south of the Kanawha River and running almost to the southern end of the state were made permanent Oct. 16 by order of Judge McClintic in the U. S. District Court.

The decision was handed down in twelve injunction cases, consolidated for hearing, in which the total number of plaintiff companies reached 309, some being plaintiffs in more than one suit.

Judge McClintic held that the United Mine Workers had "unlawfully combined and conspired absolutely to monopolize and control all labor in the United States and on the American

continent engaged in mining and producing coal."

Due to a strike of engine drivers, firemen and hostlers on the Western Maryland Ry. coal mines along the Wyatt-Bingamon & Helen's Run branches in West Virginia suffered from car shortage for several days last week. Rail officials assert that the lack of empties was not due to the strike as much as to the equipment being delayed on foreign railroads. The W. M. officials predicted that this would be corrected and the equipment would soon be flowing back to the mines. No serious complications are expected because of the strike.

Many operators believe the union not only has absolutely no chance to win out in the field but will never come back. Union officials refuse to make any such admission and are busy erecting barracks for the winter.

### Says Union Output Is Heavy

In a statement issued last week Mr. Bittner claims that certain non-union mines along the Monongahela River front in the Brady section of Monongalia County are working with reduced forces and that many strike breakers have left the region. "The fact that all the union mines in northern West Virginia are operating at more than full capacity clearly shows that the United Mine Workers have in no way destroyed the coal mining industry in this field and proves that all the mines necessary to furnish the coal coming from northern West Virginia could be operated on the Baltimore and New York agreements," says Bittner in his statement. He adds: These facts more clearly than ever demonstrate the perfidy of the coal operators, who abrogated the wage agreement with the United Mine Workers."

Three large miners' houses at the Berry Mine of the Monongah Coal Co., formerly controlled by the Soper-Mitchell interests, in Scotts Run, Monongalia County, near Morgantown, were burned down Sunday night, Oct. 18. Fumes of gasoline caused county officials to be suspicious concerning the origin of the fire.

### Wertheim Elected President Of Burns Bros.

Sanders A. Wertheim, vice-president of Burns Bros., New York coal dealers, was elected president and J. S. Bache was elected a director on Oct. 13. Mr. Wertheim has filled the office since the resignation of Frank L. Burns, a few months ago. He became actively identified with the firm at the time that S. M. Schatzkin and interests represented by him gained control of the firm. Mr. Wertheim organized the Steamship Fuel Corporation and the Wyoming Valley Coal Co., both acquired recently by Burns Bros. Regular dividends were declared.

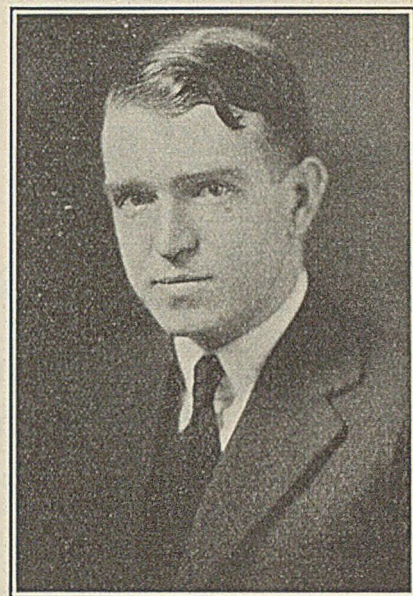


Photo by Harris & Ewing

Wayne P. Ellis

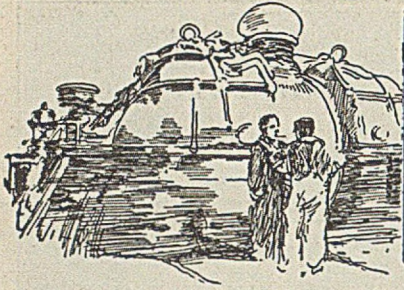
The Lake Superior Coal Dock Association, with headquarters in Minneapolis, has formally dissolved, by unanimous vote of its members. The membership owned coal docks at Duluth, Superior and Ashland, and was a continuation of the Northwest Coal Dock Operators' Association. To continue the work of freight and traffic matters performed by the dock association, Wayne P. Ellis, formerly secretary, has formed a private business, known as the Ellis Coal Bureau, with offices at 1001 Plymouth Building, Minneapolis. He has taken over the organization of the dock association and will provide for clients the service formerly supplied by the retiring association. It will include statistical information as to coal production, movement and stores, credits and trade matters, and legislation.

### Seek Broad Gage Director for Bureau of Mines

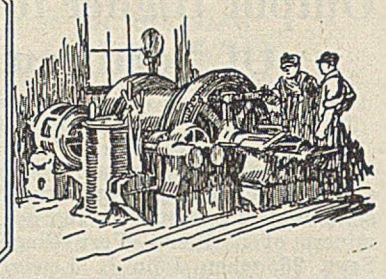
Developments at the Pittsburgh meeting of the U. S. Bureau of Mines advisory committee, Oct. 19 and 20, foreshadow clearly that the economic phases of mining will be emphasized in the renascent Bureau. It seems probable that the coal and minerals divisions of the Bureau of Foreign and Domestic Commerce will be transferred to the Mines Bureau.

The committee is anxious to recommend for the directorship, it was revealed, one who has had experience in the practical operation of mines, mills and smelters. At the same time the director must be well grounded in the scientific questions which confront the industry, including geology. He shall, also, preferably have had experience in coal mining as well as in metal mining. A knowledge of the mining situation in Alaska is desirable, and there is real need that the man shall have had foreign experience, particularly in Latin America.

An engineer who has had enough contact with the government service to be familiar with its machinery and methods of procedure would appeal to the committee. Transportation has come to have a more important bearing on the mining industries than ever before, so the qualification that the new director be familiar with transportation matters has been added.



## Practical Pointers For Electrical And Mechanical Men



### Locks Ball-Bearing Nut on Shaft By Pinning to Pinion

Most mine electricians will agree that a need exists for a more satisfactory method of locking the ball-bearing nut on the pinion end of mine locomotive armatures. The chief objections to the method commonly in use are a lack of reliability, damage to threads and difficulty in removing the nut.

A method of locking which is, perhaps, somewhat out of the ordinary has been adopted as standard at the mines of the Island Creek Coal Co., in West Virginia. Instead of the nut being fastened directly to the shaft it is locked to the pinion by means of a pin, consisting of a  $\frac{3}{4}$  x 1 in. counter-sunk head rivet. The pinions, which are hardened steel, are ordered from the factory with a  $\frac{3}{4}$  x  $\frac{1}{2}$ -in. hole drilled in one end at a point near the keyway. A  $\frac{3}{4}$ -in. rivet projecting from the bearing nut extends into this hole in the pinion.

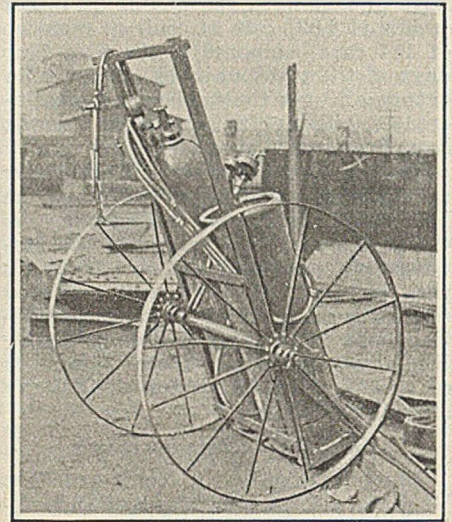
This device is assembled in the following manner: The bearing nut is first set down to its limiting position, then the pinion with a dummy or pilot pin inserted in the hole is assembled loosely on the shaft and the exact position of the pin marked

on the nut. This latter is then removed and drilled, the hole being counter-sunk on the bearing side. The rivet is then slipped into place and the nut screwed tight into its final position. Placing the pinion on the shaft and keying it in place completes the lock.

A natural question to ask in regard to this method of fastening is this: Does not the hole in the side of the pinion reduce its strength? L. D. Thompson, chief electrician of direct-current equipment for the Island Creek company, answers this as follows: "The hole is only  $\frac{3}{4}$  in. deep and we have had no broken pinions." He has found this method of nut locking to be a big improvement over others with which he has had experience.

### Welding Cart Facilitates Odd-Job Repairs

With the extensive use of the oxy-acetylene torch for various purposes in and about the mines has come the need for some means of readily transporting the necessary outfit from place to place. The accompanying illustration shows the "welding



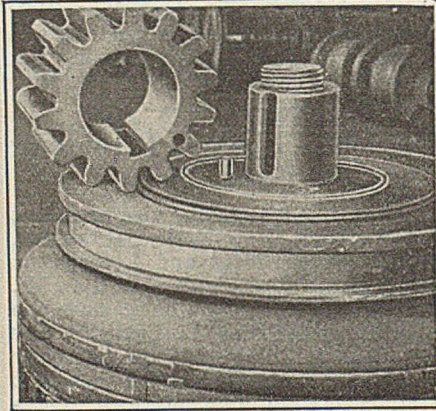
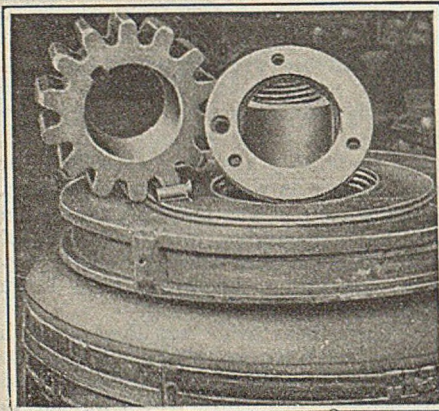
### Welding Outfit and Cart

This cart built up chiefly of structural shapes and mounted on steel wheels of large diameter, furnishes a ready means of moving the welding torch and its necessary equipment to any point where desired. One or two men can pull it almost anywhere but if time is short and the distance long a horse, wagon or automobile may be used to furnish the motive power for transportation.

cart" built and used at the Valier mine of the Valier Coal Corporation, Valier, Ill.

The outfit used in both cutting and welding consists of the oxygen and acetylene cylinders, the torch, and the hose connecting it to the cylinders, together with the necessary regulating valves and pressure gages. When work has to be done anywhere about the plant, except at the shop where permanent arrangements have been made for autogenous welding, it is necessary to transport the entire outfit to the point of application.

The cart here shown consists of a framework built up of light structural shapes, chiefly angles and straps, picked up from odds and ends about the shop. This is mounted on an axle carried between two light steel wheels of large diameter. These wheels look as if they had at some time graced a corn cultivator or similar agricultural implement. Their light weight and large size make transportation of the outfit easy even though this be over fairly rough ground.

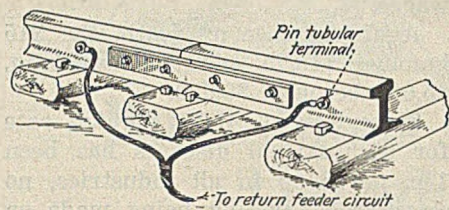


### Removing the Pinion Unlocks the Bearing Nut

In the illustration on the left the bearing nut has been removed from the shaft in order to show the counter-sunk hole and the rivet. At the right the nut is in place and the rivet is held secure by the butting of its head against the ball bearing beneath it. The lock is completed by the end of the rivet fitting into the hole in the end of the pinion.

### Simple Attachment Gives Good Service

The accompanying sketch illustrates a method by which a return feeder cable may be successfully attached to the haulage road. I have seen employed around the



#### Return Feeder Connection Is Easily Made and Lasts Long

A double attachment is made to the track by a connector which also serves as a bond. The fact that it can be easily installed and protected makes it most valuable.

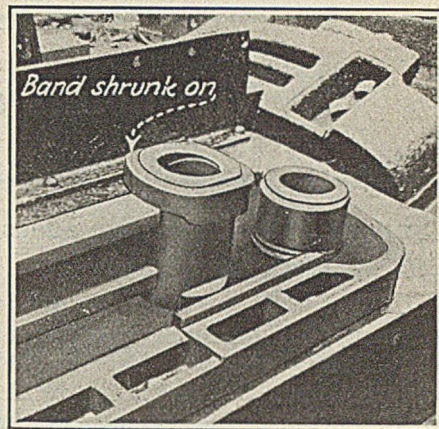
mines many different methods of attaching return feeders to the rails

but most of them are not one hundred per cent perfect. That this particular method is good is evidenced by the fact that it has been in service for twelve years and a recent test on it with a standard bond tester (it acts as a bond also) shows that it is comparable to any pin tubular bond that recently has been put in service.

Although it has given no trouble this method of fastening cables to the rails possesses more than one advantage. In case the cable is cut by a car jumping the track, a new connection can be made quickly and permanently installed.

Another big advantage is that the connection cannot readily be sheared off by the flange of a wheel because it can be buried deeply in the dirt around the ties and thus be protected.

HARRY GUILFORD.



#### Bearing Reinforced by Forged Band

This bottom plate with step plate assembled has just come out of the Holden shop of the Island Creek Coal Co. and is ready for sending to any of its mines. Because in some instances the casting surrounding the intermediate bearing of the step plate has broken in service, this part is now reinforced by a  $\frac{1}{2}$  x  $1\frac{1}{4}$ -in. forged band shrunk around the top.

### Roof Leaks Stopped by Changes to Idler

At Orient No. 2 mine, located at West Frankfort, Ill., a short-center, belt drive, with idler, forms the connection between the 300-hp. motor and the fan. As originally installed, the idler pulley was held up against the belt by a weight suspended from a wire rope which passed through sheaves hung from the steel purlins of the roof structure.

This proved unsatisfactory because vibration from the idler was transmitted to the roof and caused leaks in the joints between the concrete roof tiles. The roof span of this building, which houses the

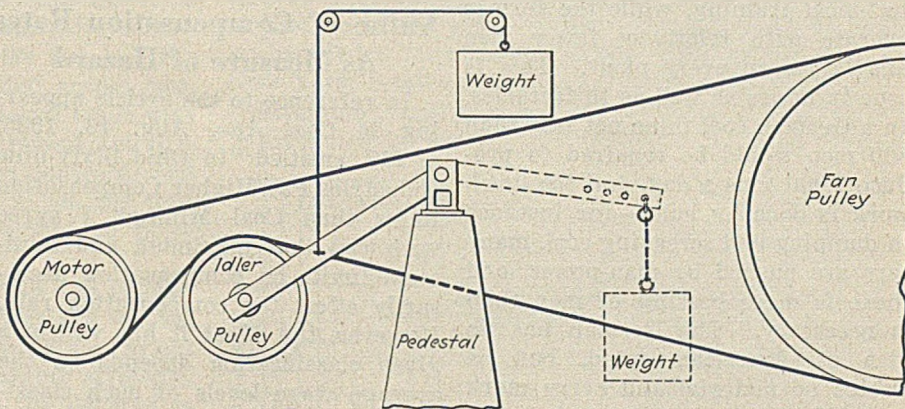


Fig. 1—Dotted Lines Indicate Changes Made to Idler

The arms supporting the idler pulley were keyed to the pedestal shaft. The weight was removed from the ceiling mounting and hung on an arm which was added and likewise keyed to the shaft.

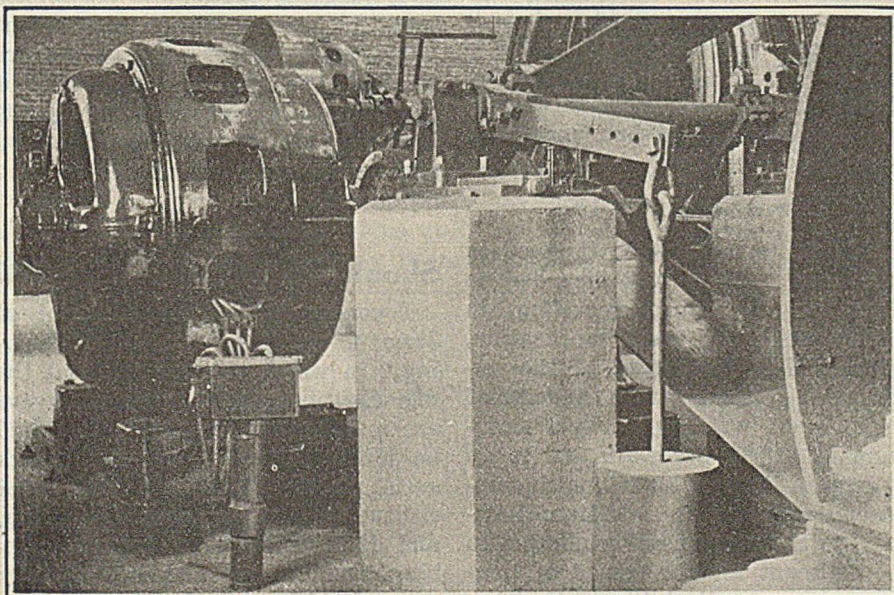


Fig. 2—The 300-Hp. Motor Driving New Orient's Fan

The weight hanging on the projecting arm tends to rotate the shaft, thus holding the idler pulley up against the belt. Originally idler tension was maintained by a weight hung on a cable carried through sheaves attached to the roof. Vibration caused leaks in the roof, these occurring between the concrete roof tiles.

auxiliary hoist and substation equipment as well as the fan, is approximately 40 ft. and was not designed for additional loads such as imposed by the idler.

#### WEIGHT CAN BE SHIFTED

The trouble was overcome by changing the idler weight to the position indicated by the dotted lines in Fig. 1. Originally the arms supporting the idler pulley were not keyed to the shaft. Keys were applied, a third arm added, and the weight hung near the end of this arm. Adjustment of the belt tension is accomplished by changing the weight to the various holes in the arm. This gives the weight more or less leverage as may be desired.

Orient No. 2, known also as New Orient, is equipped for an ultimate capacity of 12,000 tons per day, and now holds the world's record, having hoisted over 10,000 tons in one shift.

## Viewpoints of Our Readers

### Should U. S. Exchange Ideas With Germany?

Dr. Franz Fischer, director of the German Coal Research Institute in the Ruhr, recently has visited America upon the invitation of Dr. A. C. Fieldner, chief chemist of the U. S. Bureau of Mines, who, himself, had been Dr. Fischer's guest in 1924.

In conversation with a man like Fischer one very soon becomes aware of one great difference between American and German industrial establishments. The latter employ more scientists and men of broad technical training, while the former operate with relatively fewer men and bosses in every plant. This is true in mines as well as in factories. In a German coal mine not less than 800 men would be required to produce 2,000 tons a day, and too much work is done by hand—for instance in dumping and screening coal, many cars are pushed by man-power, and there is more bossing of men than is necessary. The German has no idea of American speed, but he wastes no material and every mark invested in the plant has to bear interest. Byproducts are utilized with the utmost care, and the greatest scientific ingenuity shows itself in the development of highly complex chemical compounds out of inferior raw materials.

Recently the Germans have developed a system of producing synthetic petroleum from heated cokes and water-vapors. This artificial oil is called "Synthol" and can be produced at an expense of 24c. a gallon. In America, oil is pumped out of the ground much cheaper than we could make it, but in a country which has almost no oil wells and whose supply of kerosene depends entirely upon foreign sources, the people may, under certain circumstances, be willing to pay \$7.50 for a barrel.

#### FOLLOW ECONOMIC FORCES

The early American industries were handicapped by a shortage of workmen and, therefore, developed labor-saving devices. Germany's natural resources are small in proportion to her population, and she had to economize in material. One

country has become a leader in labor management, the other in the saving of raw materials and byproducts.

In Germany some coal companies want to organize mines on the American plan. They are beginning to learn American labor methods, and we might well adopt some of their scientific spirit and give more chance to highly trained coal mining engineers. Surely an exchange of ideas between two progressive nations will help both.

A. C. NOË,

Department of Geology,  
University of Chicago.

Chicago, Ill.

### Value of Compensation Rates As Measure of Hazard

In reference to the article appearing in *Coal Age*, Aug. 13, 1925, p. 217, entitled "In Ohio Sixty-nine Industries Pay Higher Compensation Rates than Coal Mining" I agree with you that maximum and minimum limits on compensation necessarily affect the compensation rate. However, the effect it has within a given classification depends on the average wage levels of such classification.

Consequently, compensation rates are not always an exact index of the hazard of an industry. For instance, the compensation rate of house wreckers is much higher than that of structural steel erectors. This is due to the steel erectors working shorter hours, being more intelligent men and having a higher wage scale than house wreckers.

#### LAW AMENDED IN 1923

You quote the law as it stood in 1921. In 1923 it was amended so that for an injury resulting in partial disability the compensation, while still 66 $\frac{2}{3}$  per cent of the impairment of the earning capacity of the injured, was limited to a maximum of \$18.75 per week and to an aggregate limit of \$3,750, such compensation being in addition, however, to the compensation allowed to the claimant for the period of temporary total disability, resulting from such injury.

The compensation in case of permanent total disability was also still 66 $\frac{2}{3}$  per cent but the maximum was

set at \$18.75 per week and at not less than a minimum of \$5 per week unless the employee's average weekly wages are less than \$5 per week at the time of injury, in which case he shall receive compensation in an amount equal to his average weekly wages.

Again in case of death, the \$15 becomes \$18.75 and the maximum, \$5,000 becomes \$6,500.

Since July 1, 1925, the flat rate for occupational diseases has been 1 $\frac{1}{2}$ c. per \$100 in all industries, no classification rating being made on occupational disease.

E. I. EVANS, Actuary.

The Industrial Commission of Ohio  
Columbus, Ohio.

As \$18.75, the maximum compensation, corresponds to a wage of \$28.12 per week instead of to \$22.50 per week as did the maximum former compensation of \$15, the change in the compensation law has made it necessary to place the rates more nearly in accord with the hazard. The maximum of \$6,500 is, however, less than \$18.75 a week for eight years and is only about \$15.62 which would correspond to a wage of \$23.43 per week.

The effect of the hours of working on the relation of the compensation rate to the hazard is not of primary interest. What we are desirous of knowing is the hazard in relation to duration of life and not the hourly, though that may be the true hazard of the occupation. If a man worked only one hour a day his real hazard as a worker would only be one eighth that of the man who worked eight hours at the same job, and we are interested solely in the possibility of his being hurt, no matter how his immunity is attained, whether by abstention from work or in any other way.

EDITOR.

### Should Be Arched and Packed

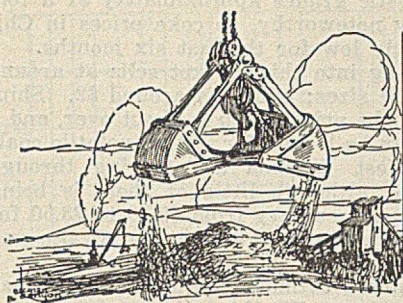
I concur with your editorial of June 4, entitled "Coal-Dust Shelving," in which you remark that the big cavities above mine roadways are a dangerous feature. It would be much better if we would pack such places with loose rock over either arching or iron timbering, and if circumstances require cribbing, such cribs should be plentifully covered with rock dust.

GEORGE S. RICE,

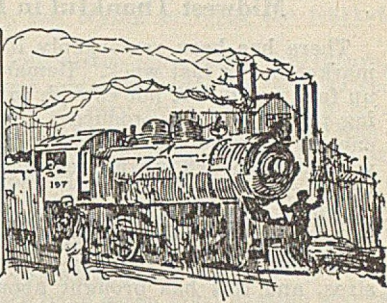
Chief Mining Engineer.

U. S. Bureau of Mines,  
Washington, D. C.





# Production And the Market



## Bituminous Coal Market Has Healthy Tone Though Surface Change Is Slight

That the bituminous coal business as a whole has undergone comparatively little change in the past week is distinctly in its favor. An increase in demand appeared about two weeks ago with a cool wave, and that the trade has been able to hold its gain despite a moderation in temperature is indicative of healthy underlying conditions. There is not much balm, of course, for those who were banking on a panicky public willing to pay any price for coal as a sure result of the suspension of operations at the anthracite mines. As a matter of fact, the hard-coal strike has had far from the expected effect on the soft-coal trade; nor, for that matter, does the regular steam coal trade give any marked outward indication of increased activity, but liberal shipments are being taken on contracts and consumers are building up stocks. All in all, the tone of the market is better, shopping around and price shading being less in evidence.

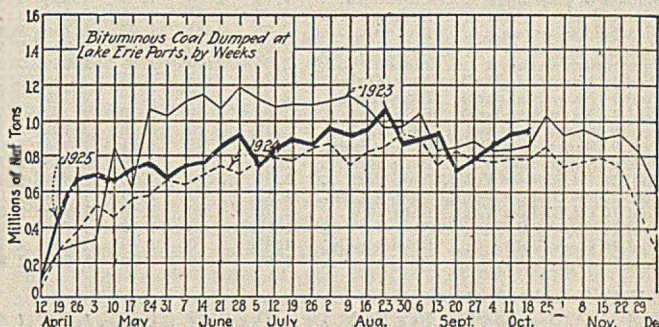
"No bills" are less numerous in Illinois and though shipments of screenings have been heavier the market has been able to absorb them and maintain prices firmly. West Virginia smokeless is regaining strength, especially in Midwest markets, though the demand is quite light in New England. Strangely enough, Pennsylvania coals show a firmer price tendency than West Virginia fuels in the Northeast.

Business in Kentucky has been shifting back and forth with the weather, with a slight net gain. Production is a little lighter and screenings in active demand. Normal seasonal trade prevails at the Head of the Lakes and the outlook is thought to be promising. Shipments to the lakes are heavy, all records having been broken last week according to railroad figures.

As the supply of anthracite continues to dwindle the interest of retailers and public in substitutes increases, the demand of late having become quite heavy. Coke is far in the lead, but the supply is much short of the

demand, many shippers of byproduct coke being already out of the market. Sized bituminous coal is beginning to have a better call, and this is expected to improve with the suspension of the ban against soft coal in many Eastern cities. Shipments of pea coal are somewhat slower and the price of buckwheat has been advanced 25c. by one of the old line companies. Some independent pea and buckwheat can be picked up in New York harbor, but there has been no clamor for it because of the prices asked. Though \$16 has been pronounced a "reasonable" price for domestic coal in New York, retail quotations are as high as \$23.50.

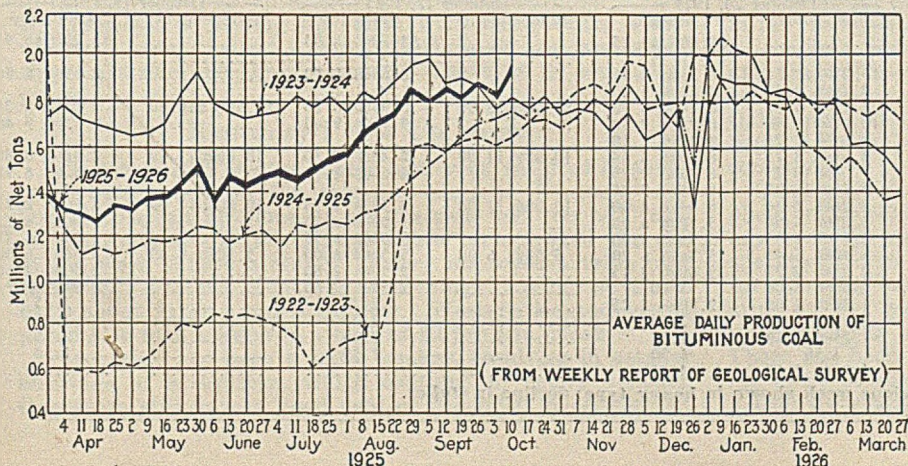
Bituminous coal production in the week ended Oct. 10 is estimated by the Bureau of Mines at 11,696,000 net



tons, the largest weekly output since last January. This compares with 11,008,000 tons in the preceding week. Anthracite output was 13,000 net tons.

Coal Age Index of spot prices of bituminous coal on Oct. 19 stood at 176, the corresponding price being \$2.13.

Dumpings at Lake Erie ports during the week ended Oct. 18, according to the Ore & Coal Exchange, were: Cargo, 885,659 net tons; steamship fuel, 48,774 tons—a total of 934,433 net tons, compared with 924,668 tons in the preceding week. Hampton Roads dumpings in the week ended Oct. 15 totaled 355,202 net tons.



### Estimates of Production

(Net Tons)  
BITUMINOUS

	1924	1925
Sept. 26 (a) .....	10,458,000	11,232,000
Oct. 3 (a) .....	10,614,000	11,008,000
Oct. 10 (b) .....	10,904,000	11,696,000
Daily average .....	1,817,000	1,949,000
Cal. yr. to date. (c) 360,545,000		383,050,000
Daily av. to date. ....	1,507,000	1,598,000

### ANTHRACITE

Sept. 26 .....	1,942,000	13,000
Oct. 3 .....	1,425,000	14,000
Oct. 10 .....	1,737,000	13,000
Cal. yr. to date. .... (c) 70,533,000		61,693,000

### COKE

Oct. 3 (a) .....	138,000	187,000
Oct. 10 (b) .....	127,000	193,000
Cal. yr. to date. .... (c) 7,646,000		7,469,000

(a) Revised since last report. (b) Subject to revision. (c) Minus two days' production to equalize number of days in the two years.

(FROM WEEKLY REPORT OF GEOLOGICAL SURVEY)

Midwest Thankful in Holding Its Own

There has been remarkably little change in the Chicago market in the last week. Demand for prepared coals keeps up fairly well, but not enough to warrant operators increasing prices; in fact, producers are thankful it has not slumped enough to necessitate a cut. Six-inch lump is still most wanted, with 6x3-in. furnace and 3x2-in. small egg running fairly close.

Illinois operators have reduced "no bills" at mines in the last ten days, principally on account of a little cold weather. This more or less implies a production of more prepared sizes, and this has brought about somewhat heavier shipments of screenings. The market has absorbed these extra screenings and prices remain firm at the old level—\$1.60@ \$1.75 for Franklin County and good southern Illinois 2-in.

Coal from strip mines in the north central part of Illinois and the Clinton field of Indiana are coming into Chicago in increasing quantities. The fact that operators of strip pits can put their coal on the cars at a relatively low figure is the main thing that keeps prices so low on the much higher grade steam coals from the southern part of the state.

No one pays much attention to the anthracite situation, as there is no shortage of hard coal in Chicago and apparently dealers have in reserve enough to take care of their needs for the next two months. The coke people have taken advantage of the situation, however, and have in-

creased prices on domestic grades approximately \$1 a ton. This is not particularly noteworthy, as coke prices in Chicago have been relatively low for the last six months.

Pocahontas coal coming into this market sells at around \$4.25@ \$4.50 for domestic sizes; mine-run around \$2. Shippers of smokeless think the price slump is about over, and a gradual improvement can be looked for. High-volatile coals from Kentucky and West Virginia are moving through Chicago in fair volume, although little of them is being disposed of in Chicago. Prices vary from \$2.50 to \$3.50 for 4-in. block, according to quality, and on egg run all the way from \$2 to \$2.75.

Cold weather is beginning to move southern Illinois coal, especially the domestic sizes. The lump is moving freely, egg fairly well, but nut is slow and steam sizes are heavy. Better working time prevails in a general way throughout the field at the shaft mines, although rainy weather has stopped the activities at strip mines to a considerable extent. All mines have a large number of "no bills" of different sizes on hand and are trying to keep the sizes most in demand ahead. Many mines in the field have not opened up but gradually they are beginning operations and it is evident that some of them will not resume this winter.

In the Duquoin field there is no change. Four and five days a week seems to be the best working time a couple of the mines get and the others average three. Small sizes are heavy here with no change in prices. In the Mt. Olive

Current Quotations—Spot Prices, Bituminous Coal—Net Tons, F.O.B. Mines

Low-Volatile, Eastern					Midwest						
	Market Quoted	Oct. 20 1924	Oct. 5 1925	Oct. 12 1925	Oct. 19 1925†		Market Quoted	Oct. 20 1924	Oct. 5 1925	Oct. 12 1925	Oct. 19 1925†
Smokeless lump.....	Columbus....	\$4.50	\$4.60	\$4.60	\$4.50@ \$4.85	Franklin, Ill. lump.....	Chicago.....	\$3.35	\$3.25	\$3.25	\$3.25
Smokeless mine run.....	Columbus....	2.35	2.55	2.55	2.40@ 2.75	Franklin, Ill. mine run....	Chicago.....	2.35	2.35	2.35	2.25@ 2.50
Smokeless screenings.....	Columbus....	1.30	1.50	1.50	1.40@ 1.60	Franklin, Ill. screenings....	Chicago.....	1.35	1.60	1.60	1.50@ 1.75
Smokeless lump.....	Chicago.....	4.60	4.10	4.10	4.00@ 4.25	Central, Ill. lump.....	Chicago.....	2.85	2.85	2.85	2.75@ 3.00
Smokeless mine run.....	Chicago.....	2.00	2.10	2.10	2.00@ 2.25	Central, Ill. mine run....	Chicago.....	2.20	2.10	2.10	2.00@ 2.25
Smokeless lump.....	Cincinnati..	4.35	4.35	4.50	4.50@ 5.00	Central, Ill. screenings....	Chicago.....	1.15	1.55	1.55	1.35@ 1.75
Smokeless mine run.....	Cincinnati..	2.10	2.35	2.35	2.50	Ind. 4th Vein lump.....	Chicago.....	3.10	3.10	3.10	3.00@ 3.25
Smokeless screenings.....	Cincinnati..	1.15	2.00	1.90	1.85@ 2.00	Ind. 4th Vein mine run....	Chicago.....	2.35	2.35	2.35	2.25@ 2.50
*Smokeless mine run.....	Boston.....	4.40	4.85	4.75	4.50@ 4.75	Ind. 4th Vein screenings..	Chicago.....	1.30	1.60	1.60	1.50@ 1.75
Clearfield mine run.....	Boston.....	2.05	1.85	1.90	1.75@ 2.15	Ind. 5th Vein lump.....	Chicago.....	2.85	2.35	2.35	2.25@ 2.50
Cambria mine run.....	Boston.....	2.60	2.15	2.20	2.00@ 2.50	Ind. 5th Vein mine run....	Chicago.....	2.10	1.95	1.95	1.85@ 2.10
Somerset mine run.....	Boston.....	2.05	2.00	2.05	1.85@ 2.35	Ind. 5th Vein screenings..	Chicago.....	.95	1.40	1.40	1.35@ 1.50
Pool 1 (Navy Standard)....	New York....	2.75	2.85	2.85	2.75@ 3.30	Mt. Olive lump.....	St. Louis....	2.85	2.50	2.50	2.50
Pool 1 (Navy Standard)....	Philadelphia..	2.70	2.65	2.65	2.50@ 2.85	Mt. Olive mine run.....	St. Louis....	2.50	2.00	2.00	2.00
Pool 1 (Navy Standard)....	Baltimore....	2.60	2.30	2.30	2.25@ 2.35	Mt. Olive screenings....	St. Louis....	1.35	1.75	1.75	1.75
Pool 9 (Super. Low Vol.)....	New York....	2.10	2.20	2.20	2.10@ 2.30	Standard lump.....	St. Louis....	2.85	2.25	2.25	2.25
Pool 9 (Super. Low Vol.)....	Philadelphia..	2.15	1.95	1.95	1.95@ 2.00	Standard mine run.....	St. Louis....	2.20	1.80	1.80	1.75@ 1.90
Pool 9 (Super. Low Vol.)....	Baltimore....	1.90	2.05	2.05	2.10@ 2.20	Standard screenings....	St. Louis....	.80	1.15	1.15	1.15
Pool 10 (H.Gr. Low Vol.)....	New York....	1.90	2.00	2.00	1.85@ 2.15	West Ky. block.....	Louisville..	3.35	1.90	1.75	1.75@ 2.00
Pool 10 (H.Gr. Low Vol.)....	Philadelphia..	1.75	1.85	1.85	1.75@ 2.00	West Ky. mine run.....	Louisville..	1.70	1.35	1.30	1.20@ 1.50
Pool 10 (H.Gr. Low Vol.)....	Baltimore....	1.70	1.90	1.90	1.95@ 2.05	West Ky. screenings....	Louisville..	.70	.95	.95	.90@ 1.10
Pool 11 (Low Vol.).....	New York....	1.60	1.80	1.80	1.75@ 1.90	West Ky. block.....	Chicago.....	2.75	2.05	2.05	1.85@ 2.25
Pool 11 (Low Vol.).....	Philadelphia..	1.45	1.70	1.70	1.60@ 1.80	West Ky. mine run.....	Chicago.....	1.65	1.25	1.25	1.15@ 1.35
Pool 11 (Low Vol.).....	Baltimore....	1.60	1.70	1.70	1.80@ 1.85						

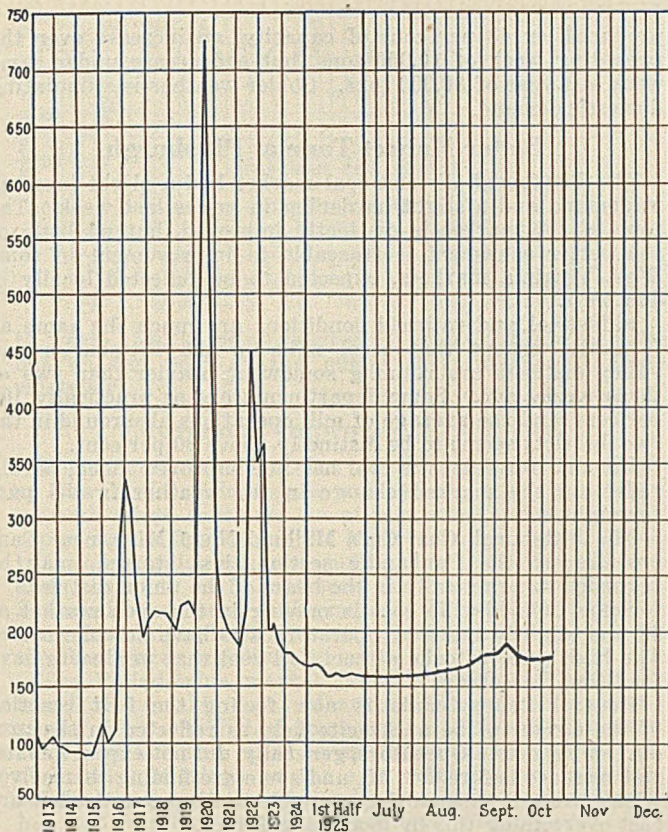
High-Volatile, Eastern					South and Southwest						
	Market Quoted	Oct. 20 1924	Oct. 5 1925	Oct. 12 1925	Oct. 19 1925†		Market Quoted	Oct. 20 1924	Oct. 5 1925	Oct. 12 1925	Oct. 19 1925†
Pool 54-64 (Gas and St.)....	New York....	1.55	1.55	1.60	1.55@ 1.60	Big Seam lump.....	Birmingham..	3.00	2.25	2.25	2.00@ 2.50
Pool 54-64 (Gas and St.)....	Philadelphia..	1.50	1.60	1.60	1.50@ 1.70	Big Seam mine run.....	Birmingham..	1.60	1.80	1.80	1.60@ 2.00
Pool 54-64 (Gas and St.)....	Baltimore....	1.50	1.65	1.65	1.75@ 1.85	Big Seam (washed).....	Birmingham..	1.85	1.85	1.85	1.75@ 2.00
Pittsburgh se'd gas.....	Pittsburgh..	2.40	2.50	2.50	2.50	S. E. Ky. block.....	Chicago.....	2.85	3.00	3.00	2.75@ 3.25
Pittsburgh gas mine run....	Pittsburgh..	2.10	2.15	2.15	2.10@ 2.25	S. E. Ky. mine run.....	Chicago.....	1.60	1.95	1.95	1.85@ 2.10
Pittsburgh mine run (St.)..	Pittsburgh..	1.85	2.05	2.05	2.00@ 2.10	S. E. Ky. block.....	Louisville..	3.35	2.60	2.60	2.50@ 2.75
Pittsburgh slack (Gas)....	Pittsburgh..	1.20	1.55	1.55	1.50@ 1.60	S. E. Ky. mine run.....	Louisville..	1.60	1.60	1.50	1.49@ 1.65
Kanawha lump.....	Columbus....	2.55	2.60	2.60	2.45@ 2.80	S. E. Ky. screenings....	Louisville..	.90	1.20	1.20	1.20@ 1.35
Kanawha mine run.....	Columbus....	1.50	1.70	1.70	1.55@ 1.85	S. E. Ky. block.....	Cincinnati..	3.35	2.85	2.85	2.60@ 3.00
Kanawha screenings.....	Columbus....	1.00	1.30	1.30	1.25@ 1.35	S. E. Ky. mine run.....	Cincinnati..	1.55	1.60	1.60	1.50@ 1.75
W. Va. lump.....	Cincinnati..	3.10	2.60	2.60	2.50@ 2.75	S. E. Ky. screenings....	Cincinnati..	1.00	1.25	1.25	1.15@ 1.45
W. Va. gas mine run.....	Cincinnati..	1.50	1.60	1.65	1.60@ 1.75	Kansas lump.....	Kansas City..	5.00	4.50	4.50	4.50
W. Va. steam mine run....	Cincinnati..	1.35	1.55	1.55	1.50@ 1.65	Kansas mine run.....	Kansas City..	3.50	3.00	2.85	2.75@ 3.00
W. Va. screenings.....	Cincinnati..	1.95	1.25	1.25	1.15@ 1.35	Kansas screenings....	Kansas City..	2.00	2.40	2.40	2.35@ 2.50
Hoeking lump.....	Columbus....	2.55	2.70	2.70	2.50@ 2.90						
Hoeking mine run.....	Columbus....	1.55	1.65	1.65	1.50@ 1.85						
Hoeking screenings.....	Columbus....	.85	1.30	1.30	1.25@ 1.40						
Pitts. No. 8 lump.....	Cleveland..	2.40	2.35	2.35	2.00@ 2.75						
Pitts. No. 8 mine run.....	Cleveland..	1.85	1.85	1.85	1.85@ 1.90						
Pitts. No. 8 screenings....	Cleveland..	1.35	1.35	1.25	1.20@ 1.30						

\* Gross tons, f.o.b. vessel, Hampton Roads.  
 † Advances over previous week shown in heavy type; declines in italics.

Current Quotations—Spot Prices, Anthracite—Gross Tons, F.O.B. Mines

	Market Quoted	Freight Rates	October 20, 1924		October 12, 1925		October 19, 1925†	
			Independent	Company	Independent	Company	Independent	Company
Broken.....	New York....	\$2.34		\$8.00@ \$9.25		\$8.20@ \$8.95		\$8.20@ \$8.95
Broken.....	Philadelphia..	2.39		9 15				
Egg.....	New York....	2.34	\$9.25@ \$9.75	8.75@ 9.25		8.65@ 8.90		8.65@ 8.90
Egg.....	Philadelphia..	2.39	9.25@ 9.75	8.80@ 9.25				
Egg.....	Chicago.....	5.06	8.17@ 8.27	8.14@ 8.20	\$9.50@ 10.00	8.03@ 8.28	\$9.50@ \$10.00	8.03@ 8.28
Stove.....	New York....	2.34	10.00@ 10.50	8.75@ 9.50		9.15@ 9.40		9.15@ 9.40
Stove.....	Philadelphia..	2.39	9.85@ 10.25	9.15@ 9.50				
Stove.....	Chicago.....	5.06	8.63@ 8.75	8.50@ 8.64	10.00@ 11.00	8.48@ 8.80	10.00@ 11.00	8.48@ 8.80
Chestnut.....	New York....	2.34	9.50@ 10.25	8.75@ 9.25		8.65@ 8.95		8.65@ 8.95
Chestnut.....	Philadelphia..	2.39	9.65@ 10.00	9.15@ 9.25				
Chestnut.....	Chicago.....	5.06	8.26@ 8.40	8.44@ 8.60	10.00@ 11.00	8.50@ 8.75	10.00@ 11.00	8.50@ 8.75
Pea.....	New York....	2.22	5.25@ 5.50	5.50@ 6.00		5.00@ 6.25		5.00@ 6.25
Pea.....	Philadelphia..	2.14	5.75@ 6.35	5.75@ 6.00		5.00@ 6.25		5.00@ 6.25
Pea.....	Chicago.....	4.79	5.13@ 5.45	5.36@ 6.20	5.50@ 6.00	5.50@ 6.00	5.50@ 6.00	5.50@ 6.00
Buckwheat No. 1.....	New York....	2.22	2.25@ 2.75	3.00@ 3.15		2.50@ 2.60		2.50@ 2.60
Buckwheat No. 1.....	Philadelphia..	2.14	2.50@ 3.00	3 00		2.50@ 2.60		2.50@ 2.75
Rice.....	New York....	2.22	1.80@ 2.00	2.00@ 2.25		2.25		2.25
Rice.....	Philadelphia..	2.14	2.00@ 2.25	2.25		2.25		2.25
Barley.....	New York....	2.22	1.25@ 1.50	1.50		2.25		2.25
Barley.....	Philadelphia..	2.14	1 50	1.50		1.50		1.50
Birdseye.....	New York....	2.22	1.35@ 1.60	1.60				

\* Net tons, f.o.b. mines. † Advances over previous week shown in heavy type; decline in italics.



This diagram shows the relative, not the actual, prices on fourteen coals, representative of nearly 90 per cent of the bituminous output of the United States, weighted first with respect to the proportions each of slack, prepared and run-of-mine normally shipped, and, second, with respect to the tonnage of each normally produced. The average thus obtained was compared with the average for the twelve months ended June, 1914, as 100, after the manner adopted in the report on "Prices of Coal and Coke; 1913-1918," published by the Geological Survey and the War Industries Board.

district there is an improvement in railroad tonnage and domestic sizes are moving well. Steam is a little heavy. Mines here are getting four to five days a week.

The Standard field is having a hard time pulling through. Prices are low and demand is not good. Working time at mines that are working ranges from three to four days a week, with the usual exception, and railroad tonnage is light. No immediately bright prospects are in line for this district and there is still considerable discontent among the miners, who know that a lot of western Kentucky coal moves through their territory and is delivered at a much lower price than Illinois can hope to meet and that serious inroads have been made in the Standard market by strip mines in southern Illinois.

There is an improvement in the domestic situation at St. Louis. Middle grade coals are moving fairly well and high grades show some improvement. There is little activity in the movement of anthracite, coke and smokeless. Country domestic is picking up fairly well, but country steam is slow. Local carload steam is fairly good and wagonload shows considerable improvement. There is no change in prices.

### Kentucky Perks Up Some

A touch of cold weather early last week resulted in somewhat better demand for prepared sizes in Kentucky and helped to clean up some of the distress and "no bill" coal on tracks in the state. But a warm turn toward the end of the week caused a slump. Prices improved a trifle over the week, eastern Kentucky screenings having advanced until about \$1.20 a ton is the low. Western Kentucky prepared also took a hitch to a high of \$2 for 6-in. block.

Production has been a trifle weaker, resulting in smaller offerings of screenings, which continue in active demand. Operators still have a good deal of "no bills" on track, but

with cold weather due are not trying to force the market too much by cutting prices.

The trade feels rather optimistic concerning the future, in spite of complaint about present movement and price, which has been largely due to very open weather so far. Kentucky mines ask \$2.50@\$2.75 for best 4-in. east Kentucky lump, with some special coals selling to the trade at \$3. Two-inch lump, egg and nut prices are around \$2@\$2.25, some fine grade bringing \$2.50; mine-run, \$1.40@\$1.65; screenings, \$1.20@\$1.35. Western Kentucky 6-in. is \$1.75@\$2; lump and egg, \$1.50@\$1.75; nut, \$1.35@\$1.50; mine-run, \$1.10@\$1.50; screenings, 90c.@\$1.10.

Heavy rains over the state have given good boating stages for movement of coal, but have virtually drowned out some of the west Kentucky strip mines, production being curtailed.

### Normal Trade in Northwest

The coal trade at the Head of the Lakes is fairly normal. Colder weather has given an impetus to orders from retailers. Dock officials note an increase in the proportion of anthracite substitutes while shipments of hard-coal have been correspondingly cut down. Shipments from the docks continue in good volume, the gains being well distributed between commercial, industrial and domestic consumers.

The industrial outlook is promising and the trade figures on larger shipments to iron foundries and other plants over Minnesota. Loadings of both anthracite and bituminous coals at the docks for shipment to the Twin Cities continue to expand as a result of the revisions in freight rates on all-rail coal from Illinois, Indiana, Kentucky and Virginia made effective last spring. The docks in fact claim to be gradually regaining the trade they formerly held down there.

Thirty-four cargoes of bituminous were received by lake last week, compared with twenty-nine cargoes in the preceding week, and fourteen were reported en route.

Consumers show no disposition to fall into a panic over the anthracite strike. Many are switching to Pocahontas and other smokeless coals and demand for coke and briquets is gaining ground. Quotations are firm and unchanged in both bituminous and anthracite coals.

There seems to be a serious backwardness to the seasonal activity of the coal market in the Twin Cities. So far this fall, there has been but the customary demand for hard coal, and but a moderate demand for steam and other soft coals. Industrial demands have not picked up to the extent that they were counted upon to do. The price situation holds steady, because of the support from other districts, quite as much as from any help in this market. Southern Illinois lump is steady at \$3.25; Indiana, \$3@\$3.25; central Illinois, \$2.75@\$3; western Kentucky, \$2. Hocking and Youghiogheny generally hold at former figures.

The coal business in Milwaukee is brisk and seasonable, and an increase in the demand for all grades of coal would indicate that consumers are rapidly filling their bins. Pocahontas is scarce and there is almost no anthracite to be had. The last cargo of hard coal was received here more than a month ago. To Oct. 16 this season 488,234 tons of anthracite and 2,330,350 tons of bituminous have been received. In the corresponding period of 1924 623,461 tons of the former and 1,834,917 tons of the latter were received. Prices remain unchanged.

### All-Round Situation Better in Kansas

Demand for domestic sizes of Kansas coal remains strong in the Southwest and the screenings situation has improved in the last week. Screenings were beginning to pile up and the contract price of \$2.35 a ton was being shaded by some operators on large contracts. The situation in Oklahoma and Arkansas remains about as it has been since Sept. 1, with buyers hesitant because of uncertain labor conditions.

Quite an improvement in demand for domestic coal took place in Colorado last week, due to cooler weather, which has speeded up production. Some mines are forced to operate on night shift to take care of the sudden demand for domestic lump and steam size. Nut continues to be a drug on the market. Anthracite mines are working full time, which is something they have never done heretofore. There has been no change in prices, the present level seeming likely to hold for the balance of the current year.

Due to weather conditions, the coal business in Utah is

very "spotty." On the whole business is not as good as it ought to be, considering that few people ordered their winter supply of coal during the summer months this year. Lump coal is selling best, but no size is a drug on the market at this time. Coal for heating purposes is selling better. The car situation is no worse and it would seem that the serious shortage feared some weeks ago has been averted. There are few "no-bill" cars on the tracks now. Prices remain steady and the labor situation is all that could be desired.

### Smokeless Lively at Cincinnati

At Cincinnati smokeless egg sizings still hold the center of the stage. With added inquiries from the seaboard the asked price has gone 25c. a ton above lump, the range last week being steady at \$4.75@\$5 for egg and \$4.50@\$4.75 for lump. Practically all of the direct sales offices on Pocahontas say they are sold up for the rest of the month on sized coals and New River firms are pretty near in the same boat. Mine-run is steady and firmer and slack steady with very little to be had under \$2. Trial orders for New England, following the inauguration of an all-rail rate, were another interesting feature of the low-volatile market.

Lake business still is getting a good deal of attention in the bituminous market, but hurrying consigned coal to the lakes proved costly for some concerns, as quite a bit of it got into distress and went away under the price of Cincinnati wholesalers. All records to the lakes were broken last week, according to the railway figures, which show 3,507 cars moved there, an increase of 357 cars—and this in a season where the tapering off process sometimes becomes violent.

Demand for domestic sizings fluctuates with the weather. River business is back to normal with rains raising the stage. The sole menace now is the possibility of too many of the tributaries rushing in and bringing about a flood stage, which is almost as bad as no water at all.

The Columbus domestic trade is strictly a weather proposition. Retailers are fairly well stocked, but many are getting low on certain varieties and are gradually replenishing their reserves. Householders are coming into the market fairly well. Retail prices are fairly steady, smokeless grades selling at \$8.25@\$9; splints, \$7.25@\$7.75, and Ohio grades, from \$6.25@\$6.75 delivered. The desirable grades of Kentucky lump sell at the same levels as West Virginia splints. There is little free domestic coal on the market and as a result prices at the mines are fairly well maintained. The lake trade still holds the interest of shippers, however, providing an outlet for surplus domestic stocks. Dealers are making a good margin on their business as price cutting is not in evidence to any extent.

The steam trade is running in about the same channels as for two months, the bulk of orders being for current needs. Some contracting, generally to provide stocks up to April 1, is reported. Most of the larger consumers and many of the smaller users are covered by such agreements. Screenings are rather firm, due to the larger amount of small sizes being shipped to the head of the lakes.

Production in the southern Ohio field shows little change from the preceding week. The output in Pomeroy Bend is about 40 per cent of capacity, but in the Crooksville, Cambridge and Hocking Valley fields it is about 20 to 25 per cent of capacity.

In eastern Ohio market conditions and prices are practically unchanged as compared with a week ago. Production in eastern Ohio in the week ended Oct. 10 was the largest of the year. Three hundred thousand tons was

produced, or 43 per cent of capacity, an increase over the preceding week of 10,000 tons, but a decrease under same week last year of 30,000 tons. Colder weather is stimulating domestic demand.

### Better Market Tone at Pittsburgh

The Pittsburgh district coal market had a slight increase in demand and a slight hardening in prices last week. The tone of the market is distinctly improved, but no little of the better sentiment is traceable to improvement in some West Virginia markets, expected to be reflected locally in due time.

Industrial and railroad conditions are much the same as formerly, except that steel mills in the Pittsburgh and valley districts are running somewhat heavier than two or three weeks ago. Some departments are at practically 100 per cent, and the average of mill operations all around in the two districts seems to be distinctly above 80 per cent.

Demand for domestic coal has not improved much, hardly reflecting the marked change in the weather in the past fortnight.

The Pittsburgh Coal Co.'s Midland No. 1 Mine, near Cansburg, in the Panhandle section, just started, may be regarded as practically in the heart of the union district.

Some Connellsville coal is moving in the open market at \$2 and slightly more by operators who have no coke ovens. The high price of coke attracts all coal that producers have facilities for coking.

Central Pennsylvania is now feeling the first reaction of the strike in the anthracite field as reflected in the production reports. Operators, generally, did not expect a material increase before Oct. 15, and some are finding themselves with more orders than they are able to fill promptly, but are fast overcoming this by increasing forces.

The soft-coal trade at Buffalo languishes, as soft coal, but it is doing all sorts of things trying to play the game as hard coal. With straight bituminous more complaints of no business and cut prices have come lately than in a long time. Slack moves slowest; nobody seems to want it and yet it comes this way.

Quotations are weak at \$1.60@\$1.75 for Fairmont lump, \$1.40@\$1.50 for mine-run and \$1.25@\$1.40 for slack; \$2.25@\$2.50 for Youghiogheny gas lump, \$2@\$2.25 for Pittsburgh and No. 8 steam lump and \$1.25@\$1.60 for slack; \$1.75@\$2 for Allegheny Valley mine-run.

### New England Shows Lack of Interest

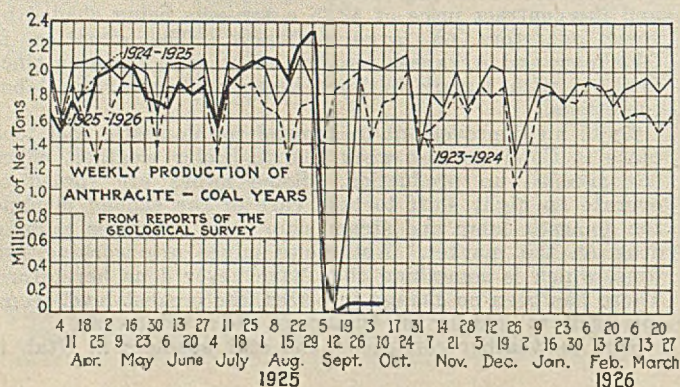
Further recessions in prices of smokeless coals have been characteristic in New England in the past week. Inquiry is light and no large buyers have shown interest in the current market. There is a general disposition to regard present quotations as not excessive and consumers will buy only from hand to mouth until there are more tangible indications of higher figures.

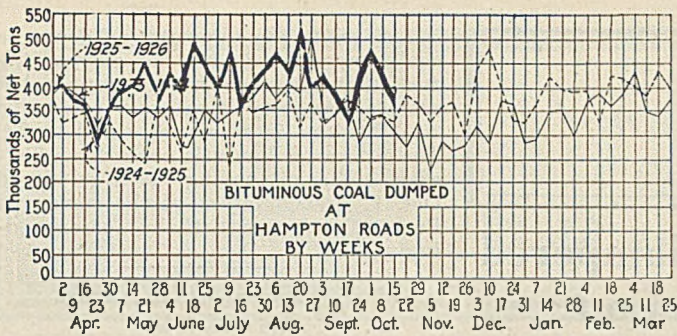
High-grade Pocahontas and New River continue to accumulate at Hampton Roads and in consequence the spot range has eased to \$4.50@\$4.75. Strictly No. 1 navy standard is being sold at \$4.65 or so, but coals not so desirable are to be had at \$4.50 and less. The \$4.50 level means a net return of not over \$1.90 per gross ton at the mines, and slack is being offered at \$1.30@\$1.40 per net ton, also at the mines. Movement coastwise is for the most part restricted to deliveries on contract and off shore there is little tonnage materializing.

On cars Boston and Providence, Pocahontas and New River are only in moderate request. For inland delivery prices hover around \$6 per gross ton, with occasional instances of \$6.10 and \$5.90. On the part of retail dealers there is some call for screened smokeless coals, but in most cases the cargoes received carry so large a proportion of slack that no figure obtainable would make the practice at all profitable as a steady thing.

All-rail from Pennsylvania an active demand is developing for prepared sizes of the coals that are more favorably known. Part of this inquiry is in anticipation of probable retail demand when cold weather sets in, but it is plain that many householders are already taking low-volatile bituminous in place of anthracite. Several shippers have all the business now that can be delivered during the next three or four weeks and are expecting to realize higher prices when they again have coal available. Prices range up to \$4 and \$4.50 per net ton, f.o.b. mines.

Cargoes of Welsh anthracite continue to arrive from week





to week. Stocks of Pennsylvania hard coal are dwindling, but on the part of the public there seems no anxiety whatever.

**Movement Improves at New York**

Better movement features the bituminous coal situation at New York. Prices show more strength in spots, but the general range continues as of last week. Some operators report better figures for the higher grades of coal. Industrial consumption has been sufficient to prevent overstocking and contract coal continues to move uninterruptedly. Screened bituminous coal gradually is coming into its own, some dealers displaying various grades, including coals from the Pocahontas and New River fields.

The Philadelphia market remains very quiet and all demands are quickly met. Meantime mining continues at the strong pace established some weeks back and of necessity some new business must be developed if the output is to be absorbed. Offerings on the spot market have been plentiful during the past week, and prices have been maintained but not without occasional evidence of softness. Those houses endeavoring to find a domestic market for soft coal are making progress, most sales being confined to low volatile coals of hard structure. Business at tide is unusually quiet and is practically confined to bunkering.

At last there is some real excitement in the Baltimore bituminous market as prices keep jumping on prepared sizes. The coke market also is doing a runaway stunt, and it would not be at all surprising to the trade generally to see a big upward swing soon in industrial coals other than prepared sizes. Surpluses are disappearing at tide and apparently the trade will soon be out of the long era of oversupply and under-prices. After a long lapse, the bringing of coals by steamer from Norfolk to this port has been resumed. Export movement has fallen flat, no shipment having been made since Oct. 5.

At Birmingham the demand for steam coal continues very good with no change of importance in market conditions from a week ago. Inquiry is fairly active in the open market and the aggregate of orders booked amounts to considerable tonnage. Industrial, utility, railroad and general demand calls for a record weekly production for the year. High-grade mine-run and washed coals have the best call, but the more inferior qualities are being moved with little delay. Byproduct coke ovens are running full, there being need for a large amount of furnace coke, while foundry and domestic sizes are finding a ready market.

A short spell of cool weather in the past week gave an impetus to the retail domestic market and dealers throughout this territory booked sufficient business to keep them busy for a week or so, but yards which had considerable stocks are still holding up on contract deliveries to a great extent. A large number of small orders on the mines for prompt shipment helped to relieve the situation to some extent. Quotations on steam and domestic grades are stable on the basis of schedules in effect for several weeks.

Production has improved materially during the past three months, the output for the week of Sept. 26, the last figures available, being 404,000 net tons. The total production to date is now only slightly under that for the corresponding period of last year.

**Hard-Coal Substitutes in Heavy Demand**

A dearth of anthracite at New York has resulted in heavy demand for substitutes, especially coke. Retail dealers are carefully doling out their remaining supply of hard coal, knowing that it will be some time before they will be able to obtain further shipments. Some independent pea and

buckwheat can be picked up in the harbor, but because of the prices asked retail dealers are not importunate. Quotation of \$14.75 was heard for pea coal, alongside, but it was rejected by the prospective buyer.

Users of hard coal are advised by the State Coal Commission to use substitutes, and city officials, where there are anti-smoke ordinances, are to be asked to suspend such laws during the duration of the anthracite strike.

Retail prices in Greater New York range as high as \$23.50 for domestic coals, though some dealers are taking care of their regular customers at the prices prevailing prior to the inauguration of the strike. Independent buckwheat was quoted at \$3 to \$3.50. Rice and barley are not being quoted generally.

Coke is in good demand. Large tonnages have been received in this market and retail dealers are finding a ready market for it. Manufacturers report heavy bookings. Quotations for Latrobe egg, stove and nut sizes range from \$7.50 to \$8 per ton at the ovens, with furnace coke quoted at \$5.50@6.50.

Philadelphia consumers remain calm, though shipments of pea by the companies who have it in storage are a little slower. As the strike wears along retailers are slowly turning to substitutes. Most shippers of the byproduct coke are out of the market, having more orders than they can ship. Sized bituminous also is finding a slightly better market. One of the big company shippers increased buckwheat to \$2.75 a ton Oct. 15, an increase of 25c. since Oct. 1.

Demand at Baltimore continues rather light considering all circumstances. The public does not seem to be uneasy about the strike, in view of the many substitutes offered. There probably is sufficient anthracite in the yards of local dealers to take care of all demands to Dec. 1. Some dealers are apprehensive that if the public gets into the habit of using cheaper substitutes for anthracite they will be lost as buyers in the future.

The Buffalo public is getting pretty wide awake to the fact that no anthracite is coming from the mines and that there is no apparent effort to get the miners to go back to work. Some seem positive that the anthracite people are going to see consumers taking up new fuel that is cheaper, or at least handier and cleaner, and will never return to high-priced egg coal. Coke goes up \$1 or so every time it is sampled. It used to sell as low as \$9 at the curb, but now it is often more than \$12.

**Domestic Coke Trade Active at Connellsville**

Eastern interests, chiefly distributors of fuel for domestic consumption, became very active in the Connellsville coke market a little over a week ago, buying both run of oven blast furnace coke and regular crushed coke. Evidently there was sharp competition in the buying. Some buyers came to Pittsburgh and Uniontown, practically picking up all offerings. The market advanced about 50c. a day for several days, having previously been a trifle weak at \$4 for furnace coke. Last Friday an Eastern representative was in Uniontown and is understood to have picked up all offerings of crushed coke at \$8, getting about 50 car-loads.

Blast furnaces have no occasion to buy coke at this time, being covered to the end of the year at old prices, but are much concerned as to what the situation will be for first-quarter deliveries. They are not disposed to quote on pig iron beyond this year, but there is inquiry and advanced prices will have to be quoted at a venture.

Foundry coke had no strength of its own, spot buying being quite limited, but production has simply decreased when there was so much better sale for 48-hour coke, and foundry coke could hardly be bought now at less than \$7, the market ten days ago having been \$4@4.50.

Production by the merchant ovens has now advanced three-fifths of the way from the low level of last summer to the high level of early in the year, and even that did not tax the resources of the region in equipment or men. The main point is whether production can be increased further without labor unrest developing.

**Freight Car Loadings**

	Cars Loaded	
	All Cars	Coal Cars
Week ended Oct. 3, 1925	1,112,463	174,317
Previous week	1,120,645	178,463
Week ended Oct. 4, 1924	1,077,006	186,516

## Foreign Market And Export News

### Contracting in British Market Hampered By Uncertainty at Subsidy's End

The expected improvement in the Welsh coal trade has not yet materialized. General inquiry for coal appears to have improved a little but the chief difficulties of colliery owners are the enormous stocks at the pitheads and the failure to obtain day-to-day clearance of rolling stock. This means that on many days two-thirds of the pits are idle. A few contract inquiries are coming to hand, but the difficulty of arranging contracts over next year lies in the uncertainty as to what will happen when the subsidy comes to an end—in April. This is a problem both for the colliery owners and the buyers. Some little business has been arranged for delivery over the next few months. Small coals still constitute a big problem, as there are immense supplies and there is little demand even at the extremely low figures quoted.

At Newcastle-upon-Tyne prospects

are unexpectedly good. It is evident that buyers abroad now recognize that it is futile to hold out for lower prices, since the economic limit had been reached. In fact the tendency of prices is now upward, and but for keen German competition values would be very much higher; as it is they are firmly held and traders regard the situation now as one which justifies an advance. In view of the steady demand for deliveries of gas coke up to December, prices are firm. Contract business is in fair evidence, but mainly for small quantities. Coal and coke shipments from the Tyne are improving a little, though they are still substantially below last year's figures.

Output by British collieries during the week ended Oct. 3, according to a special cable to *Coal Age*, totaled 4,620,000 gross tons, compared with 4,395,000 tons the week before.

### Domestic Trade and Prices Weak At Hampton Roads

Hampton Roads business shows little improvement, Western and New England trade having fallen off. Warm weather seems to have cut down buying to a considerable extent and the trade at tidewater is marking time. Some fair foreign shipments are reported, but bunker trade is barely holding its own and coastwise business is at a low ebb. Domestic business is below normal for the season and prices show a tendency to weaken.

### Belgian Trade on Upgrade

A slight improvement is to be noted in industrial coals in the Belgian market, the rise in sterling and French currencies, together with a new reduction in Belgian prices, for bituminous coals in particular, having caused a drop in importations of British and French coals. In addition demand from some industries is better. Imports of German and Dutch fuels, however, have not decreased.

For domestic fuels the demand con-

tinues excellent. Since they started rising, anthracite sorts have increased on an average about 20 fr. per ton for inland sales.

On shipments to France beginning Oct. 1 Belgian producers of domestic coals raised the prices of anthracite and half bituminous grades 5 to 10 fr.

### French House Coals More Active; Industrial Grades Quiet

In the French coal market industrial coals are quiet and domestic grades increasingly active. None of the output now seems to go to pithead stocks.

No agreement having been reached at the recent meeting at Douai between the mine owners and miners of the Nord and Pas-de-Calais on the fixation of the bounty for living costs, the matter was placed in the hands of the Minister of Public Works. On the government's promise to accord French collieries all necessary measures of protection, the companies agreed to raise the bounty from 20 to 40 per cent. Loire operators also have consented to raise the allowance to 40 per cent under certain conditions.

Arrears in the shipments of domestic coals are marked, due not only to the fact that demand exceeds supply but also to a scarcity of railway trucks and to difficulties in river and canal traffic. The prices of domestic coals from Belgian collieries having been advanced Oct. 1, French mines of the Nord and Pas-de-Calais raised theirs correspondingly.

### U. S. Fuel Imports in August

	1924	1925
Anthracite.....	437	6,079
Bituminous.....	27,216	41,824
From:		
Canada.....	21,146	40,629
Japan.....		1,195
Australia.....	6,000	
Other countries.....	30	
Coke.....	5,852	12,614

### Export Clearances, Week Ended Oct. 17, 1925

FROM HAMPTON ROADS		
For British West Indies:		Tons
Nor. Str. Sokendal, for Castries.....	3,023	
For Danish West Indies:		
Br. Str. Trafalgar, for Curacao.....	6,986	
For Cuba:		
Br. Str. Rouapark, for Cienfuegos....	2,030	
For Brazil:		
Br. Str. Watsness, for Pernambuco..	4,135	
For Jamaica:		
Swed. Str. Mongolla, for Kingston..	2,188	
For West Africa:		
Ital. Str. Nasco, for Dakar.....	7,498	
For Bermuda:		
Amer. Schr. Frank A. Morey, for Hamilton .....	808	
For Australia:		
Br. Str. City of Boston, for Melbourne	481	

### Hampton Roads Pier Situation

(Gross Tons)			
N. & W. Piers, Lamberts Pt.:		Oct. 8	Oct. 15
Cars on hand.....	1,537		1,674
Tons on hand.....	94,851		105,423
Tons dumped for week.....	135,199		119,882
Tonnage waiting.....	5,000		10,000
Virginian Piers, Sewalls Pt.:			
Cars on hand.....	1,569		1,577
Tons on hand.....	123,200		125,050
Tons dumped for week.....	81,235		81,595
Tonnage waiting.....	6,000		7,513
C. & O. Piers, Newport News:			
Cars on hand.....	2,539		2,873
Tons on hand.....	119,845		145,765
Tons dumped for week.....	162,431		115,686
Tonnage waiting.....	3,515		17,650

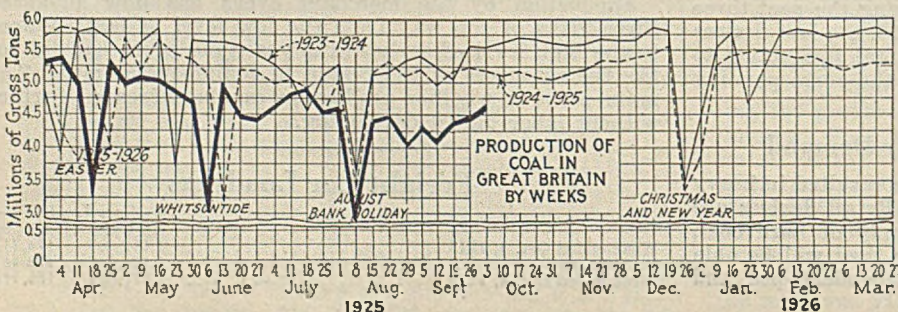
### Pier and Bunker Prices, Gross Tons

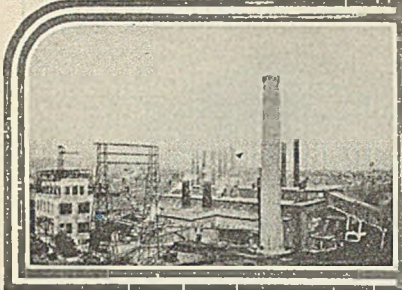
PIERS			
		Oct. 10	Oct. 17*
Pool 1, New York.....	\$5.35@5.60	\$5.35@5.60	\$5.35@5.60
Pool 9, New York.....	5.00@5.25	5.00@5.25	5.00@5.25
Pool 10, New York.....	4.75@5.00	4.75@5.00	4.75@5.00
Pool 11, New York.....	4.45@4.70	4.45@4.70	4.45@4.70
Pool 9, Philadelphia.....	4.85@5.05	4.85@5.05	4.85@5.05
Pool 10, Philadelphia.....	4.55@4.75	4.55@4.75	4.55@4.75
Pool 11, Philadelphia.....	4.35@4.55	4.35@4.55	4.35@4.55
Pool 1, Hamp. Roads.....	5.00@5.15		5.00
Pool 2, Hamp. Roads.....	4.65@4.85		4.75
Pools 5-6-7, Hamp. Rds.	4.50		4.50
BUNKERS			
Pool 1, New York.....	\$5.60@5.85	\$5.60@5.85	\$5.60@5.85
Pool 9, New York.....	5.25@5.50	5.25@5.50	5.25@5.50
Pool 10, New York.....	5.00@5.25	5.00@5.25	5.00@5.25
Pool 11, New York.....	4.70@4.95	4.70@4.95	4.70@4.95
Pool 9, Philadelphia.....	5.05@5.25	5.05@5.25	5.05@5.25
Pool 10, Philadelphia.....	4.75@4.85	4.75@4.85	4.75@4.85
Pool 11, Philadelphia.....	4.60@4.75	4.60@4.75	4.60@4.75
Pool 1, Hamp. Roads.....	5.00@5.15		5.10
Pool 2, Hamp. Roads.....	4.65@4.85		4.85
Pools 5-6-7, Hamp. Rds.	4.60		4.60

### Current Quotations British Coal f.o.b. Port, Gross Tons

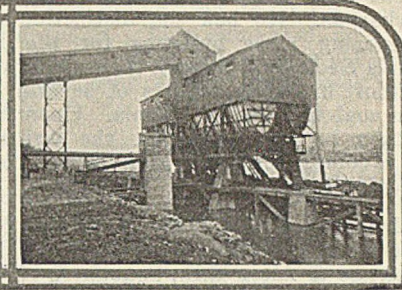
Quotations by Cable to <i>Coal Age</i>		
Cardiff:	Oct. 10	Oct. 17*
Admiralty, large....	23s.6d.@24s.	23s.6d.@24s.
Steam smalls.....	10s.@10s.3d.	10s.3d.
Newcastle:		
Best steams.....	15s.@16s.6d.	15s.3d.@16s.6d.
Best gas.....	16s.6d.	16s.6d.@16s.9d.
Best bunkers.....	14s.6d.@15s.	15s.@16s.

\* Advances over previous week shown in heavy type; declines in italics.





## News Items From Field and Trade



### ALABAMA

The Erskine Ramsay Engineering Hall, located on the grounds of the Alabama Polytechnic Institute, Auburn, was dedicated on Oct. 10, the ceremonies being attended by a large number of engineers and technical men from throughout the South, many of whom were alumni of the school. The new hall is the largest and most modernly equipped building of its kind in the South and was erected at a cost of around \$300,000. The building is named in honor of Erskine Ramsay, of Birmingham, noted mining engineer and capitalist, who launched the movement for the building with a subscription of \$100,000. The principal address at the dedication ceremonies was delivered by Charles H. Markham, president of the Illinois Central R.R.

The County Coal Co., with head offices at Birmingham and mines near Grant's Mill, on a branch of the Central of Georgia Ry., has been reorganized and passed from the control of the Sossong interests of Pittsburgh, which developed the properties and have been operating the mine for several years. The new officials are: Mr. Pritchard, president; T. M. Nesbitt, vice-president; Thomas Bowron, secretary-treasurer.

The Semet-Solvay Co., with local offices and byproduct plant at Ensley, is understood to be considering the sinking of a slope on its properties in the Blue Creek field, where the company has extensive holdings of valuable coal properties. The company at present is getting its coal supply entirely for the operation of its large battery of byproduct ovens from outside sources.

The Black Diamond Coal Mining Co. has leased the properties of the Tennessee Coal, Iron & Railroad Co. in the Blue Creek field, where the Adger and Johns operations formerly were conducted by the latter, but which have been idle for a number of years. These properties carry a considerable tonnage of the Blue Creek seam. The Adger mine has been placed in operation and is now producing several hundred tons per day, which is to be increased materially. The Black Diamond company is building a new steel tippie at Johns, in which will be installed automatic car dumpers and other modern equipment for handling the output, and a Deister concentrating table will be provided for use in the preparation of the coal. Inside haulage will be taken care of by the use of electric motors. Camp houses will be rehabilitated for the use of employees and other necessary buildings will be provided. The Black Diamond company operates a number of mines

in the district and also conducts a large sales agency for coal. C. E. Bissell is president; M. O. Travis, secretary and treasurer, and Carl McFarlin, general superintendent.

The Republic Iron & Steel Co. is erecting an emergency hospital and doctor's office building at its Sayreton mine, near Birmingham. The building is of tile and concrete construction and will be modernly equipped for the care of injured employees and the medical work of the camp.

F. J. Immler, formerly superintendent of the Flat Top Coal mines of the Sloss Sheffield Steel & Iron Co., has been transferred to Bessemer as superintendent of Sloss ore mines, succeeding C. E. Barrett, who died recently. Mr. Immler was succeeded at Flat Top by J. S. Chalmers.

The Barrett Company, of Fairfield, has placed in operation a battery of twenty-six ovens for the production of coke from pitch. These ovens have been under construction for some time.

### CALIFORNIA

The three coal mines in Oak Run and Clover Creek, twenty miles east of Redding, have become sufficiently important to want electric power. A power line four miles long is being built to tap one of the trunk lines of the Pacific Gas & Electric Co.

### COLORADO

H. Van Mater, receiver for the National Fuel Co., Denver, and one of the largest coal operators in the state, has been appointed a director of the Colorado and New Mexico Coal Operators Association to fill the vacancy created by death of L. A. Hayden.

Warning that any attempt to put into effect a 20 per cent reduction of miners' wages on Oct. 15 would result in prosecution for violation of the state industrial laws, was given Oct. 8 to H. H. Parker, of the Boulder Coal Mining Co., at Boulder, by William I. Reilly, chairman of the State Industrial Commission. Parker notified the commission by letter that such a reduction in wages would be made on Oct. 15, and Chairman Reilly pointed out that the state laws require a 30-day notice of any change in wages or working conditions to be sent to the commission before such change is put into effect.

The general store of the Colorado Supply Co. at Segundo, and its entire contents were destroyed by a fire at

1 a.m. Oct. 12. The loss is estimated at \$30,000. The fire is believed to have been started by incendiaries, and an investigation is under way. There have been a dozen fires in the various Colorado Fuel & Iron Co.'s camps in southern Colorado during the past two years, all of which are believed to have been of incendiary origin. The Colorado Supply Co. is an auxiliary of the Colorado Fuel & Iron Co.

### ILLINOIS

Zeigler Mine No. 2, of the Bell & Zoller Coal Co., at Zeigler hoisted 7,447 tons of coal in seven hours and forty-three minutes on Sept. 22. This beats the mine's previous record of 7,251 tons hoisted, made Feb. 21, 1925.

Negotiations with six major mine operators in the Fifth and Ninth Illinois districts with a view to merging their interests in a \$30,000,000 corporation headed by Herbert E. Bell, of Chicago, resulted in unfavorable replies, according to an announcement by Henry R. Platt, counsel for Mr. Bell.

The St. Clair County Board of Supervisors has ordered all abandoned coal mines closed, the shafts filled with earth and then securely fenced to prevent accidents. A recent inspection tour conducted by Supervisors C. D. Schafer, O'Fallon; Hugh Bevirt, Caseyville, and William French, of Lenzburg, revealed six open shafts in O'Fallon and Lebanon townships. In a few instances the shafts were not even protected by a fence.

The B. F. Berry Coal Co.'s mines at Granville, which have been idle for two years, were sealed up Oct. 8. A concrete layer has been spread across the shaft mouth. Many of the miners who formerly lived in Granville have moved away, several business houses have closed and the town has almost become deserted.

Announcement recently was made that Dr. G. H. Cady, head of the department of geology of the University of Arkansas, Fayetteville, Ark., will return to the staff of the Illinois Geological Survey Jan. 1, 1926, to serve as senior geologist, in charge of coal studies, to succeed H. E. Culver, who has accepted the position as head of the department of geology at Washington State College, Pullman, Wash. Dr. Cady was a member of the Illinois Geological Survey for nine years, leaving in 1919 to undertake investigations in China for the Yunnan Ming Hsing Mining Co. In 1920 he returned to this country and became head of the depart-

ment of geology at the University of Arkansas. He has the distinction of preparing more bulletins for the Illinois Geological Survey than any other author, including reports of several of the coal districts of Illinois. Upon his return he will undertake the writing of a comprehensive volume on the coal beds of Illinois.

Diminished coal traffic is blamed for the smaller September earnings of the Chicago & Alton R.R., announces H. L. Stutz, assistant to the receivers of the company. The railway operating income of September, 1924, was \$524,709, but will be lower for September last, Mr. Stutz said. The outlook for traffic, with the exception of the coal mining district, he added, was good.

## INDIANA

The Linton Gas & Coke Co., at Linton, will soon begin the manufacture of coke on a more extensive scale. W. H. O'Brien of the Sterling-Midland Coal Co., of Chicago, has leased the gas and coke plant and has started operations. The capacity will be increased to fifty tons of coke daily, together with all byproducts, and the output will be further increased later. The Linton Gas Co.'s business will not be affected. This company takes over from O'Brien all gas manufactured.

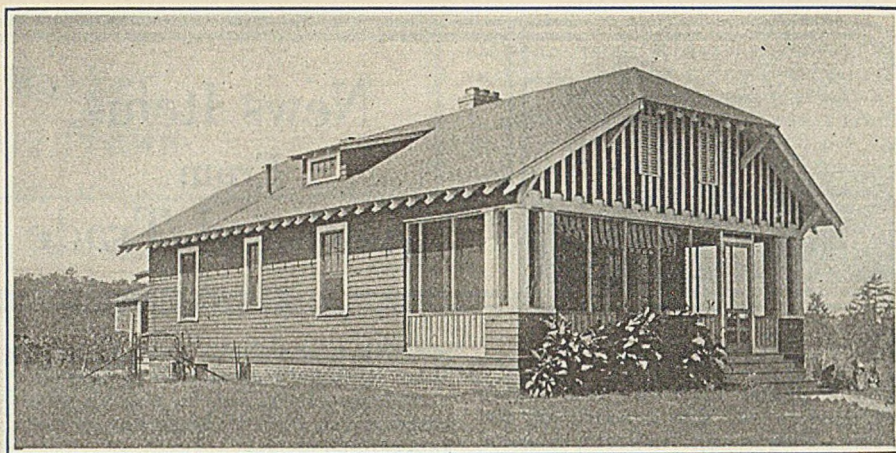
## IOWA

The Arbogast mine, Numa, opened Oct. 2 with fifty-nine miners. The mine is working with a smaller force than in years past due to the installation of new machinery.

## KANSAS

With five mines, employing a total of 500 men, on strike with the approval of the executive board of District 14, United Mine Workers, John L. Lewis, international president of the union, on Oct. 7 named a commission of three men, J. X. Cochran, of Iowa; Andrew Steele, of Missouri, and D. H. Watkins, of Iowa, to make an investigation. The strike resulted from the miners' contention that they are now required to pay the operators 70c. for dynamite fuse instead of 40c., the price that had prevailed since 1923. Mines affected are Jackson-Walker No. 42, Clemens Nos. 17 and 18, Western No. 21 and Mayer No. 7. The present contract provides no specific charge for powder and most companies through the Southwest have made no changes in their charges since the war.

A campaign to organize chapters of the Joseph A. Holmes Safety Association in the Kansas-Missouri coal mining district was launched at a meeting held in Pittsburg the night of Oct. 12. J. J. Forbes of Pittsburg, Pa., chief engineer of the safety extension service of the U. S. Bureau of Mines, spoke. District officials of the miners' union, representatives of the operators and members of the Kansas State Teachers College, of Pittsburg, are co-operating in pushing the movement. Simul-



Physician's Bungalow at an Alabama Mine

The company physician comes into more intimate contact with the people of any community than any other individual. If he is the right kind of man he merits and receives the full confidence of all those with whom he comes in touch. This picture shows the neat, clean, "homey" dwelling that the Tennessee Coal, Iron & R.R. Co. has provided for the company doctor at its Edgewater Mine.

taneously the safety movement is being promoted from another angle, Clyde Sheridan and Alex Weir being in the district with car No. 6 of the Bureau of Mines with the announced purpose of staying in the Kansas field until every miner has been given an opportunity to receive training in mine rescue and first aid.

Night classes for miners in mining subjects are being organized throughout the southeastern Kansas field under direction of the extension division of the Pittsburgh Kansas State Teachers' College. The subjects being taught are mine gases, mine ventilation, mine timbering and safety lamps. Miners are displaying interest in the work, and teachers are having no difficulty filling their classes.

The Western Coal & Mining Co. began sinking the shaft for its mine No. 22, near Arma on Oct. 15. The coal is at a depth of 250 ft. It is predicted that when this mine is fully developed it will be the largest in the Kansas field. Coal was reached recently with the shaft in the Western's mine No. 23, near Minden, Mo. The main and air shafts will soon be connected, a tippie erected and the mine put on a tonnage production basis.

## KENTUCKY

Ray L. Phillips, Ray B. Moss and others have purchased the property of the White Star Coal Co., near Pineville, from the American Light & Traction Co., and will reopen and operate the mines.

The Old Hickory Coal Co., Prestonsburg, a new concern, formed by Julia May, A. J. May, A. J. May, Jr., and others, has arranged to start a new development in the Beaver Creek coal field, where leases have been taken on some good coal acreage. The company has been incorporated with a capital of \$25,000.

The Dawson Daylight Coal Co., Louisville and Dawson, is completing a new drift mine to operate in connection with its strip mine, having three open-

ings. Coal will start moving from this mine soon and will be loaded over the 5,000-ton tippie used in strip mining production. Another drift mine is being opened and will start loading in about sixty days.

## MINNESOTA

Henry Ford's Kentucky coal is now being handled in the Duluth market by a regular dealer, in line with the policy adopted by the Fordson Coal Co. some time ago. The Ford interests are counting upon a heavier tonnage of their coal being handled this season, over the Superior dock at Duluth, under lease to them.

At a meeting in behalf of the barge line project for the Upper Mississippi River, held in Minneapolis last week, it was stated that a 1,600-ton bargeload of coal could be brought from southern Illinois to the Twin Cities even under temporary operation at a saving of \$1.30 a ton over the present all-rail freight rates. If facilities were made to cover at 2,400-ton load the saving could be made \$2 a ton.

## MISSOURI

The coal mine at Bucklin, which had been idle for two years, has resumed operations on account of the increased demand for coal. The output at the mine is about one carload per day.

The Missouri State Penal Board has entered into a contract to operate inactive coal mines near Holt's Summit, Callaway County, with convict labor. The contract was executed by Lawson Price, of Jefferson City, trustee for the heirs of the Thomas B. Price and L. C. Lohman estates. The board agreed to pay a royalty of 15c. a ton for coal mined. It is hoped that sufficient coal can be mined to provide the 23,000 tons needed annually to supply the penitentiary, Bots Reformatory at Boonville and the industrial school for girls at Chillicothe and Tipton. Dr. Cortez P. Enloe, Director of Penal Institutions, estimates that the state can save \$1,500 a month on its coal bills by producing its own coal with convicts.



## OHIO

Union miners, who had been on a strike at the five mines of the Ohio Collieries Co., near Athens, for three weeks, returned to work Oct. 13, pending a settlement of the difficulties. The men went out because the company refused permission to have miners at other operations in the neighborhood of the mines share the work of the regular miners. As far as loaders and the ordinary miners were concerned permission was given but when it came to drivers, track men and engineers the company desired that the same men remain on the jobs. About 1,800 miners were called out on the strike and the loss in wages has been heavy. The men went back on the understanding that the company would have its way in the matter of employment.

Striking union miners at the plant of the Brocalsia Chemical Co., at Syracuse, have been ordered back to work by union officials. The men struck because one of their number had been discharged.

Officials of the Ohio organization of the United Mine Workers have ordered 35 miners who walked out of the Syracuse mine, near Gallipolis, back to work. The walkout was caused by the company fining a miner for violation of rules.

Dumpings at the Toledo docks of the Hocking Valley Ry. from Oct. 1 to Oct. 14 inclusive amounted to 8,030 cars or 474,393 tons. Up to Oct. 14 the total dumpings for the year were 117,659 cars, or 6,694,879 tons. This is almost 1,500,000 more than last year up to that date, when the dumpings were 98,408 cars, or 5,370,523 tons. Activity is marked also at the other Toledo docks.

President Heywood, of Toledo; Vice-President G. H. Merriweather, of Chicago; R. B. Stirek, secretary and treasurer, Chicago, and R. A. Cochran, of Washington, commissioner of the American Wholesale Coal Association, were the guests of the Cincinnati members

at a dinner held at the Chamber of Commerce, Oct. 9. Commissioner Cochran predicted that the hard-coal strike would be dumped in the lap of Congress before the next session was well under way. He said, also, that a survey showed that a large proportion of the legislators were determined to act on some sort of legislation that would prevent further upheavals in the industry.

Earnings of 499 miners employed in the four mines of the Pittsburgh Coal Co. in the Pomeroy for the last two weeks in September were \$31,933.34, or an average of \$72.58 for each man employed at the operations. These mines have been operated under the 1917 scale for the past few months and are loading about 8,000 tons of coal weekly.

## OKLAHOMA

Following examination of fifteen witnesses for the plaintiff coal operators, who are asking injunctions to restrain miners in the Henryetta and McAlester fields from alleged interference with the operation of mines with non-union labor, Federal Judge R. L. Williams resumed the hearing Oct. 17. It was expected to require about three more days to complete testimony and it was expected that when court adjourned at McAlester it would convene the following Saturday at Okmulgee.

## PENNSYLVANIA

A. P. Cameron, who has been general manager of the mines of the Westmoreland Coal Co., with offices at Irwin, Westmoreland County, for many years, was elected vice-president in charge of operations at the regular monthly meeting of the board of directors on Oct. 14.

Railroads report that 75 mines operating in the greater Pittsburgh district produced in the week ended Oct. 10 a total of 334,886 tons of coal. This compares with 328,722 tons in the preceding week. Included in this total, according to the report to the Pittsburgh Coal Producers' Association,

were the member mines which produced a total of 71,805 tons, or 11.8 per cent of capacity. This compared with 12 per cent in the preceding week and 42.4 per cent in the same week last year.

After over 24 years' service as a mine inspector, Joseph Williams, of Altoona, retired from the service on Oct. 1. His territory was the Tenth bituminous district, embracing Blair and a portion of Cambria county. He came from Wales to America at the age of 25 and went to work in the mines in Jefferson County, later going to Cambria County, being employed at Vintondale when he received the state appointment. Upon a recent visit to Altoona, Governor Gifford Pinchot took occasion to highly commend Mr. Williams upon his long and faithful service to the state and to the coal mining industry. His place has not been filled. An examination was held in June for applicants for the place and there is a long list for the Governor's selection.

Announcement was made last week of the purchase by the Lehigh Valley Coal Co. of the coal tracts owned by the Stevens Coal Co. in Exeter borough, Luzerne County, near Pittston. The Stevens company suspended mining some years ago. The coal lands, though not extensive, are considered valuable. The new owners will start at once to remove the water from the abandoned workings in order to have the mine ready for resumption of production following the suspension. The coal mined will be carried underground to a nearby Lehigh Valley company breaker.

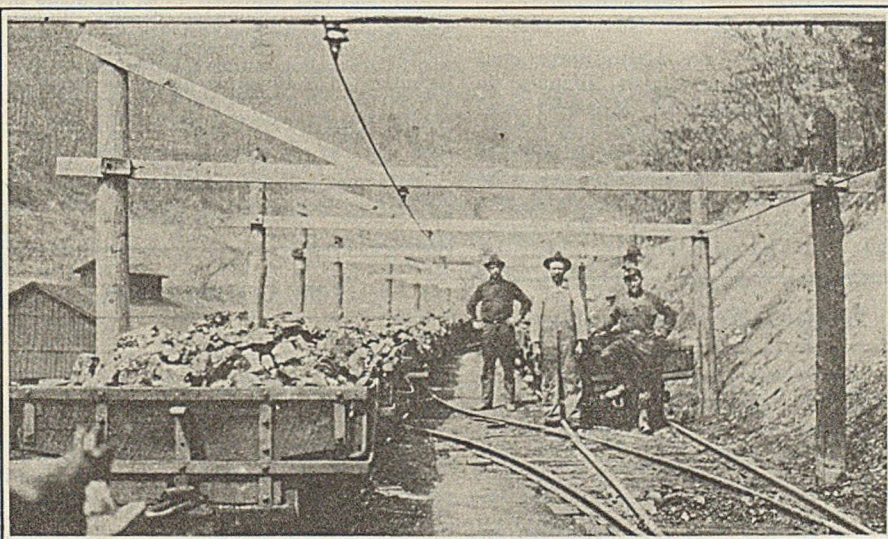
The Corrado Coal & Coke Co. announces the resumption of 186 coke ovens at Fort Hill, Raineytown and Clarissa plants. The Peerless Coke Co. started 36 ovens at Alverton and the Southern Connellsville Coke Co. started 50 at Cheat Haven.

## WEST VIRGINIA

On Oct. 15 the West Virginia Coal & Coke Co. resumed operations at its Coalton mine, in Randolph County, which had been idle for some time. One of the battery of coke ovens long in idleness also was put in blast.

M. L. Garvey, president of the New River Operators Association, with headquarters at Mt. Hope, was injured in an automobile accident Oct. 10 on the Midland trail while on his way to White Sulphur Springs. Mr. Garvey also is president of the Maryland New River Coal Co., operating at Winona, in Fayette County.

There is to be no increase in the wage scale for miners in the Williamson field of West Virginia for the time being. That was decided at a meeting of the Williamson Coal Operators Association held on Oct. 7, when the question was brought up. The banquet and meeting was attended by 150 coal operators who reported increasing activity in the field. Figures made public show that 95 per cent of the



Trolley Lines Well Supported at Kentucky Mine

The main lines leading from mines 328 and 331 to the tippie of the Elkhorn Coal Corporation at Wayland, Ky., have substantial supports for the trolley wires. This construction, which is new, has a 20-ft. span and the cross beams are 3x5-in. oak.

mines in the field are working at capacity.

A coroner's jury investigating the death of two miners at the No. 2 mine of the Lake Superior Coal Co., four miles from Welch, on Oct. 3, found in a verdict rendered on Oct. 6 that gas, probably ignited by an arc from the connection of a cable "nip" and trolley wire, caused the explosion. The inquest was conducted under the direction of R. M. Lambie, chief of the Department of Mines. The explosion was local in character and the mine was only slightly damaged. Operations were resumed on Oct. 7.

The Bethlehem Mines Corporation announced on Oct. 9 that Norman A. Emslie has been appointed superintendent of the Marion Division; Charles F. Welty, chief mine inspector, has been named superintendent of Barrackville mine, No. 41; G. H. Thorn made chief engineer of Marion Division in place of Mr. Emslie, and C. R. Bissell, chief engineer of the Preston division.

Due to accumulated coal loads an embargo was placed on Baltimore & Ohio R.R. coal shipments to the lake docks at Fairport, Ohio, last week. The embargo will continue until further notice, according to the railroad officials. Lake shipments continue to Lorain, however, but this port also is likely to be embargoed any time, it is feared.

Four night classes for miners employed in the mining industry recently were organized in McDowell County under the auspices of the extension department of the College of Mining of West Virginia University. A fifth class, at Gary, is already scheduled with an enrollment of 33 men. The classes so far organized show Welch with 15 members, Twin branch with 15, Kimball with 12 and Coalwood with 24. A mining class has been started at Mt. Hope, in Fayette County, under the same direction, as well as at Williamson, Montgomery, Logan and Wheeling.

Announcement of the incorporation of the Logan Block Coal Co., with an authorized capital of \$125,000 was made at Huntington Oct. 5 by the incorporators. The company is to operate in Logan County, on mining property formerly owned by another company. Incorporators are A. J. Dalton, J. A. Kelly, C. B. Brown, S. M. Sowder and E. L. Hogsett, all of Huntington. A. J. Dalton was for a number of years president and general manager of the Main Island Creek Coal Co. and J. A. Kelly was vice-president of the same company. The Main Island Creek mines are now owned by the West Virginia Coal & Coke Co.

## CANADA

The International Coal & Coke Co., Ltd., Coleman, Alta., has given a contract for a pneumatic coal separating plant and tipple to the Manitoba Bridge & Iron Works, Ltd., Winnipeg. The tipple will be equipped with a balanced Marcus screen and the separating plant will have three type SJ 60-84 American pneumatic coal separators to treat sizes from 3 in. to 3/4 in. and three type Y. to treat sizes up to 3/4 in. The sep-

arators will be manufactured in Canada for the American Coal Cleaning Corp., Welch, W. Va. The screening will be done by "Hum-mer" screens. The separating plant will have a capacity of 200 tons per hour.

## Traffic

### State Commission Lacks Power To Award Reparation

The Kansas Public Service Commission can simply pass on the reasonableness of intrastate freight rates and is without power to award reparation if exorbitant rates have been collected, the commission announced in Topeka, Oct. 14. In refusing the Western Shale Products Co.'s petition for reparation on freight paid on coal shipped from Arcadia, Kan., to its plant in Fort Scott, Kan., for a 3-year period ending May, 1925, the commission said the rates were too high, as evidenced by the fact that they have been reduced, but that it was without authority to make an order allowing reparation for alleged overcharges.

Approval has been given by the New York Public Service Commission of the cancellation of commodity rates of the Erie R.R. on bituminous coal and coke, carloads, minimum weight 40,000 lb., except when contents of car weigh less than minimum the car must be examined by weighmaster and if loaded to full carrying capacity shipment will be billed at actual weight, from Corning to local stations, and the restoration of mileage rates; effective Oct. 29. Also the cancellation of commodity rates on coal and coke on carload shipments of the Erie R.R. from Elmira to local stations and restoration of mileage rates; effective Oct. 28.

The Lehigh Valley R.R., with the approval of the New York Public Service Commission, has cancelled the carload commodity rate of \$1.76 per net ton on coke from Geneva to Lockport (on the Erie) and restored the combination rate; effective Nov. 3, 1925.

Freight rates on bituminous coal from points in southern Illinois to points in southeastern Missouri and northeastern Arkansas are not unreasonable in the opinion of the Interstate Commerce Commission examiner who has considered a complaint from the Scott County Milling Co. He recommends that the complaint be dismissed.

## Association Activities

At the annual meeting of the board of governors of the Alabama Mining Institute held Oct. 13, Frank Nelson, Jr., was elected president, and Charles A. Moffett, president of the Gulf States Steel Co., was elected to the vice-presidency, succeeding George F. Peter. Mr. Peter is a member of the new board of governors. James L. Davidson was again named as secretary, a position he has filled with distinction for several terms and under whose administration the Institute has greatly extended its usefulness in the compilation of statistical records and the dissemination of information of much benefit to the members of the organization. H. E. Mills, assistant secretary and statistician, has been connected with the Institute for a long while.

## Coming Meetings

**American Iron and Steel Institute.** Twenty-eighth meeting, Oct. 23, at Hotel Commodore, New York City. Secretary, Howard H. Cook, 40 Rector St., New York City.

**National Association of Manufacturers of the United States of America.** Thirtieth annual convention, Oct. 26-28, Hotel Statler, St. Louis, Mo. Noel Sargent, secretary to Fuel Supply Committee, 50 Church St., New York City.

**American Society for Testing Materials.** Committee meetings, Oct. 27-29, Hotel Cleveland, Cleveland, Ohio. Coal and Coke Committee at 2 p.m., Oct. 28; A. C. Fieldner, chairman.

**Canadian Institute of Mining and Metallurgy.** Annual western meeting, Nov. 3-5, Winnipeg, Manitoba, Can. Secretary, George C. Mackenzie, Drummond Bldg., Montreal, Que., Can.

**Illinois Mining Institute.** Fall meeting, Nov. 6 and 7 at West Frankfort, Ill. Secretary, Frank F. Tirre, St. Louis, Mo.

**Harlan County Coal Operators' Association.** Annual meeting, Nov. 18, at Harlan, Ky. Secretary, E. R. Clayton, Harlan, Ky.

**American Society of Mechanical Engineers.** Annual meeting at New York City, Nov. 30-Dec. 3. Secretary, Calvin W. Rice, 29 West 39th St., New York City.

**Fourth National Exposition of Power and Mechanical Engineering.** Nov. 30 to Dec. 5, at Grand Central Palace, New York City.

**Coal Mining Institute of America.** Annual meeting, Dec. 9-11, Pittsburgh, Pa. Secretary, H. D. Mason, Jr., P. O. Box 604, Ebensburg, Pa.

## Obituary

**Joseph H. Bartley,** 44 years old, mining engineer for the Elm Grove Mining Co., Elm Grove, W. Va., and formerly connected with the McBride Engineering Co., of Pittsburgh, died Oct. 11 in Philadelphia. He resided in Pittsburgh until seven years ago, when he moved to Elm Grove. He leaves his wife, two sons and one daughter.

**W. E. Turkington,** 73 years old, a retired coal operator of Cherokee, Kan., was killed when a passenger train struck the sedan in which he was driving in Pittsburgh on the afternoon of Oct. 13. Mr. Turkington was a resident of the Pittsburgh district for more than half a century. He was active in coal development in the early days when the name "Cherokee coal" won a standing in the market of the Southwest which still retains value as a trade title. He retired as an operator several years ago and lived on a small farm on the outskirts of Cherokee.

**Henry E. Kinloch,** who retired on Jan. 1, 1925, as general manager of the Valley Camp Coal Co., died Oct. 14 at his home in Parnassus, Pa., following a long illness. Mr. Kinloch was well-known in the coal industry in the Pittsburgh district. Starting in the mines of England when a boy, he migrated to America after the death of his mother, and went to work in the pits at Roscoe, Pa. Twenty-five years ago he became general manager of the Crescent Coal Co., at Snowden, and twelve years ago became general manager of the Valley Camp company. He prided himself that no strike ever occurred at a mine of which he had charge. He leaves a widow.

## New Companies

**The Black Diamond Coal Co.,** Clarinda, Ia., was incorporated Sept. 23, with capital of \$50,000, to engage in coal mining and to develop coal mining lands. The officers of the company are as follows: E. D. Morris, president; L. V. Harbour, vice-president and general manager; Samuel Barron, secretary; Earl Richardson, treasurer.

**The Quality Coal Co.** has been incorporated in Knoxville, Tenn., by James C. Walker, J. W. Chamberlain, 136 Hiwassee St., and others.

**The Canon Quality Coal Mining Co.** has been chartered in Canon City, Colo., with a capital stock of \$125,000, by D. J. Madone, J. Madone and others.

**The Stigler Coal Co.** has been incorporated in Muskogee, Okla., with a capital stock of \$250,000, by W. B. Badger, G. F. Gaffney, of Henryetta, and others.