

# COAL AGE

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Problems of the Coal-Mining Industry

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## Pinchot Prolongs the Strike

FOR A MAN who professes to be so ardent in his desire to effect an immediate resumption of anthracite mining, the Governor of Pennsylvania pursues strange means to achieve his ends. To the ill-timed folly of his conference of Nov. 28 he now adds the call for a special session of the state legislature to consider, among other things, the enactment of measures to declare anthracite mining a public utility and place the industry under state control.

In the light of the terms presented to an emissary of the union by the operators—terms of which Mr. Pinchot must have had full knowledge before making public his “peace” program—the presentation of that program could have but one result. That result was to drive operators and miners, who were nearing a common ground, farther apart. This would probably have been true even had the Governor’s program had real merit; any outside interference at such a stage would have endangered negotiations: with Pinchot’s eleven points what they were, their rejection was inevitable.

The chances of a speedy rapprochement—not overly bright after that flare-up—are now still further postponed by the Governor’s threat of regulation. By that action he definitely and openly aligns himself with Mr. Lewis and the union cohorts. The thin mask of impartiality with which he had covered his earlier unwelcome participation in the situation is dropped. Under a guise of acting in the public interest, Mr. Pinchot in effect says to Mr. Lewis: “Don’t worry, John; if the operators won’t yield willingly to our terms of surrender, I’ll swing the big stick over their heads and make them wish they had.”

Under such an implied promise will it be strange if the strikers take new heart and resolve to turn a deaf ear to reason until the success or failure of the threat has been determined? Hardly. Mr. Pinchot offers them chimerical hope where there had been darkening despair. But what of the public for which the Governor has expressed such sympathy? What of the business interests of the anthracite region whose future has been so dear to Mr. Pinchot’s heart? How will these interests, how will the public at large be served by steeling the miners to refuse honorable terms of peace—terms which only ask them to justify their demands before an impartial board of arbitration?

This is the question of immediate importance. The sequence of events, the background against which the proposals for legislative control have been projected make it distressingly plain that those proposals are brought forward, not to be considered on their dubious merits, but to bludgeon the operators into accepting the Governor’s “peace” program of Nov. 28. To accomplish that Mr. Pinchot seems willing to block a settlement for months since he cannot expect that the responsible leaders of the industry are so spineless or so blind to the best interests of the public as to meekly

swallow his “peace” program or his campaign of legislative reprisals. The Governor of Pennsylvania, therefore, must now shoulder the responsibility for prolonging the anthracite suspension.

## Making Headway

PLACING THEMSELVES at the head of the procession and looking back at the train behind, the critics of the coal industry question why it is that some of the travelers are ahead and some in the rear. We would suggest that the reason why there are leaders and stragglers is because there is progress. Sanford E. Thompson in the United States Coal Commission report and in a lesser degree Walton H. Hamilton and Helen R. Wright in their book just published on “The Case of Bituminous Coal” are examples of such critics. They have their place in the human economy of course. They are advocates of higher purposes, but it might be well if they realized that inequality in practice is not so much an evidence of inertia as a sign of progress. There is no inequality, for instance, in India’s native industries. So long as there is a fore and an aft in the progress of the coal industry, we may be sure that it is progress and not stagnation we are viewing.

In what industry have revolutionary changes come in a night? Are all the isolated power plants, for instance, burning coal in the most modern of boilers? Has not the return-tubular boiler persisted for thirty or forty years despite many radical changes in boiler practice? Did the mechanical blowing of glass invade the window-glass industry in a few short years or did it take a decade? Did flotation come in a year in the metal industry, or was it an affair of long continued growth? In the late war we sweat blood to get ready for battle and when we got our men to the front they had to fight with guns bought from the Allies. Secretary Davis has said that without such help our men could not have withstood the enemy for a single hour. Why? Because industry cannot be mobilized in a year or so to make these marvelous changes. The manufacturer cannot provide the facilities even if the consumer is ready to purchase them—even when we have mastered the new technique and know just what we want and just what to do with it when we have it.

In no industry is progress as rapid as it should be. It certainly is not as fast as might be desired in the coal industry, but we have yet to think that the bituminous-coal industry should be held up to public reprobation for its dilatoriness in this respect, especially in the matter of loading machines.

THE PAPERS DECLARE that the miners made concessions in accepting Mr. Pinchot’s offer, but the truth is they conceded nothing, they merely reduced some of their demands. It is the operator who is being asked by Mr. Pinchot to make the concessions.



## Planning Public Relations

**I**N ALL INDUSTRIES the consumers are more numerous than the producers, and if there is conflict the consumers have the power and the vote to mold legislation to suit their wishes, subject only to constitutional law. So it is well for the producers to think first and correctly, lest the action of the consumer be unfortunate for the producer.

Most industries are giving thought to this condition and asking themselves just what course will satisfy the consumer or, as it is more usually put, the "public." The producers, wholesalers and retailers of coal would do well to keep this same question of public relations constantly in view.

When a severe difference of opinion, a quarrel in fact, exists between two persons it is amazing how almost impossible it is to avoid controversy, because every expression is either misinterpreted or misquoted. If the operator declares, for instance, that there will be a coal shortage, he is told that he is trying to create a panic so that he may sell more coal and sell it at an extortionate figure. If he says nothing and a shortage comes, he is accused of lulling the public to sleep so that he can get the public into a trap and make unreasonable profits. The accusation will be even more bitter if he declares that there is no reason to fear a shortage.

If he builds a store or a town he is accused of feudalism and an attempt to victimize his employees and if he decides he will neither enter the store business, nor construct a town, he is reproached with an indifference to his employees' needs and with the fact that his workmen are not living in decent houses or are being victimized by third parties with whom the operator is said to be in collusion.

The trouble with such criticism is that it is always hard to refute. It is always difficult to show that the action or non-action was not the outcome of an evil intention.

It is important for an industry to be on proper terms with the consumer of its products. What the coal industry needs is to have the public assured that it is working for safety, the happiness and health of its employees, for steady operation, for a satisfactory supply at all times of the necessary fuel supplies and for the production of fuel that is clean, suitably sized and sold at a fair price. To this end the industry should be willing to let the public know the actual facts. To hide them will only result in suspicion.

The public bases its judgment on the actions of individuals. A nation is condemned for the action of one of its nationals, a race for the evil deeds of one of its members, an industry for the business methods of one of its merchants. It is, therefore, necessary to create a right sentiment in the industry, a correct standard by which the many operators may judge the actions of others and may themselves judge of their own actions. There must be instant condemnation of violations of these standards. In the words of our British cousins there must be certain things that "are just simply never done, don't you know."

We cannot show a lenient judgment to the man who runs an unsafe mine, builds or maintains rows of shacks, hires enough men to mine twice as much coal as he can sell, sends dirty, unsized coal to market or sells coal at unreasonable price at a time of scarcity. To condone such offenses is to make "coal man" a byword, to bring merited contempt on the industry.

No one who is in a line of business for life, who has his capital invested in it, can see individuals bringing it in disrepute without a feeling of indignation and regret. The health of industry depends on the honesty of its decisions, and no man who has devoted his life and his capital to an industry can be other than sensitive as to its honor. To a good man, his industry is only second to his country and the good name of his product only second to the honor of its flag.

## Quantity Designing

**I**N MOST large companies equipment is installed in many ways—some good, some bad, according to the ability of the man on the job—and if it is discovered that the design of some detail is not of the best it is probably not corrected, because it would be expensive to tear it down and re-erect it, the reconstruction would reflect on someone, delay operation and perhaps might cause a lengthy dispute.

All these questions of how any piece of apparatus should be installed should be settled once and for all by standards. The best and safest way should be determined after careful inquiry and perhaps after study of records, exhaustive tests, correspondence and discussion. Men in other and kindred industries may be consulted and the standard practices of other companies examined.

The Union Pacific Coal Co. has by some such means adopted tentative standards for its mines. Other mines may need slightly different rules and the company does not itself believe that it has made standards that cover all equipment, all contingencies or that are the final word even for its own conditions.

To make these standards a mining engineer was specially appointed having no other duties to distract his attention. He consulted with the operating and engineering staff and visited the mines to ascertain the specific conditions to be met.

Every working copy of the standards has been numbered serially and a receipt requested of mine superintendents, mine managers, foremen and others, and this receipt is intended as a recognition on the part of the recipient that having given the standard due consideration, he recognizes its desirability and is prepared to make it a guide in his future work. Time will show what changes are needed, and every sheet is a loose leaf that can be replaced by another if experience, new equipment, study or a changed condition should dictate.

*Coal Age* takes pleasure in being the vehicle by which these standards may be available to its readers. It is hoped that it will serve to formulate the ideas of the industry as to details of installation.

A mine does not manufacture equipment but it puts it into place, it prepares for its placing, it assembles and it operates it. For this purpose it should have, in a degree, quantity design and quantity methods as the manufacturer has quantity production. Unfortunately, hitherto most installations have been placed as if they were the first of the kind ever planned. No past experience has been invoked, no records, no study. The installer, if he has time, searches only his own intelligence and, often being rushed, leaves the matter to a subordinate. This way lies failure.

To avoid such untoward results the standards which will appear beginning with this number were devised and issued, and the Union Pacific Coal Co. takes pleasure in placing them at the service of the industry.



# Many Mining Men Discuss Today's Coal Problems In Coal Mining Institute of America

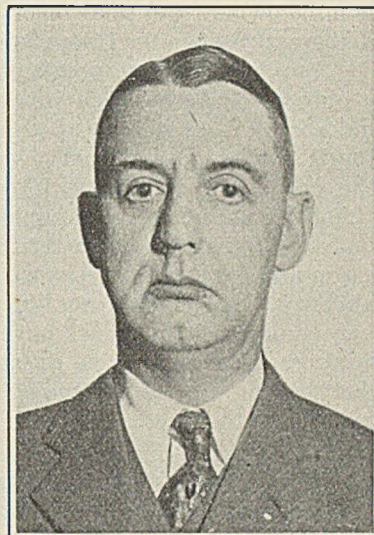
Underground Conveyors and New Methods of Using Them  
Prove Absorbing Subjects—Loading Machines Are Much  
at the Fore—Institute Sees Explosions in Bruceton

By R. Dawson Hall and Alphonse F. Brosky

Engineering Editor and Assistant Editor of *Coal Age*

THE AUDITORIUM in the Chamber of Commerce building, Pittsburgh, Pa., did not quite accommodate the large number of men who flocked to the thirty-ninth meeting of the Coal Mining Institute of America, Dec. 9, 10 and 11, to hear about and discuss the changes, that are being, and ought to be, made in the bituminous mining industry—mechanical loading and conveying, unique recovery methods of old abandoned Big Vein pillars, modern practice in underground substations, timber preservation and reforestation by coal companies and other subjects which were slightly less fully covered by discussions of questions from the floor. The last day of the meeting was set aside for an inspection trip to the Bruceton experimental mine of the Bureau of Mines where various tests were staged to remove any doubts of members regarding the dangers lurking in coal mines and the effectiveness of safety practices as a means to avoid them.

Following the custom of past years the Institute opened with a business session which lasted a scant one hour. Secretary H. D. (Joe) Mason quickly disposed of reports of activities during the year and then turned to news. The assets of the Institute at the opening of the meeting amounted to \$2,128.45; seventeen members died during the year; the membership was increased by 192, bringing the total up to 3,021; Joseph Williams and Joseph Knapper, two veteran mine inspectors, were proposed for honorary membership. Mr. Mason announced that Scott Turner, the new director of the Bureau of Mines, has been elected automatically as an



W. C. Hood

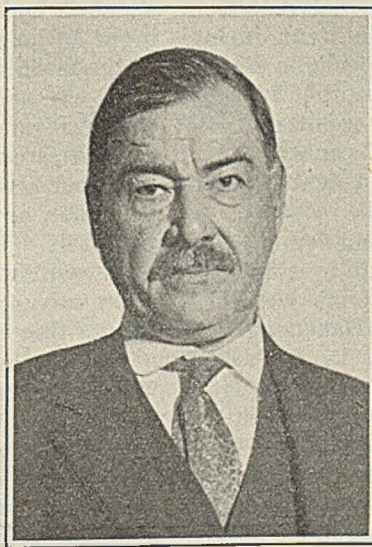
New president of the Institute and assistant general superintendent of the H. C. Frick Coal Co.

honorary member in accordance with the tradition of the Institute. The report of the board of tellers an-



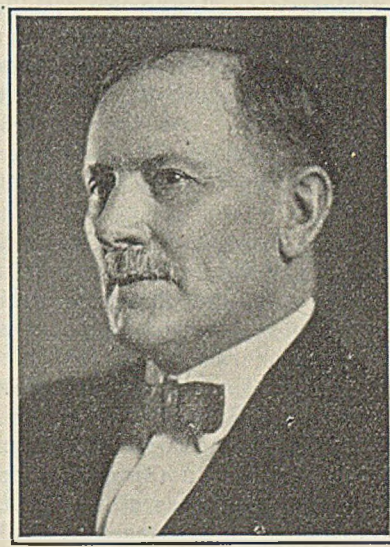
A. C. Fieldner

Chief chemist of the U. S. Bureau of Mines and Superintendent of the Pittsburgh Experiment Station.



J. J. Rutledge

Elected second vice-president of the Institute. He is chief engineer, Maryland State Bureau of Mines.



Nicholas Evans

Retiring president of the Institute. He is mine inspector of the 24th bituminous district of Pennsylvania.



nounced the following election of officers President, W. C. Hood, assistant general superintendent, H. C. Frick Coke Co., Uniontown, Pa.; first vice-president, Frank R. Lyons, vice-president in charge of operations, Consolidation Coal Co., Fairmont, W. Va.; second vice-president, J. J. Rutledge, chief engineer, Maryland State Bureau of Mines, Baltimore, Md., and third vice-president, N. D. Levin, chief engineer, Jeffrey Mfg. Co., Columbus, Ohio. Mr. Mason was re-elected secretary and treasurer for the ensuing year.

The opening address by President Nicholas Evans dealt with the success of the Institute and pointed to the things which must be done in the future to insure its advancement. He declared the Institute not stand still; it must advance and make progress if it is to live. It has seen progress, from mule to rope, and from rope to electric haulage and must make further changes for the better by co-operation in research. It already has given its moral support and expects to contribute more actively henceforth.

## Underground Mechanical Loading Makes Progress

Mechanical loading was discussed in the first paper of the day by Walter M. Dake, mining engineer, Joy Machine Co., Franklin, Pa. He said the success of mechanized mining in specific cases will depend upon the attitude of the mine owners and their officials. Without the support of the entire personnel the project undoubtedly will fail. Purchase of the necessary equipment should follow only after a thorough investigation has been made and complete estimates of cost have been compiled. Hourly wage rates for mechanical loading have made the companies put more force behind all innovations. And because loading equipment must of necessity be more complicated than cutters, for instance, intense inspection and careful maintenance are required to avoid breakdowns. Antiquated auxiliary equipment has caused many failures and should have no place in mechanical mining. There is even greater need for co-operation between purchaser and manufacturer than has been displayed in the past. Absolute costs should and must be kept.

In his paper he cited several experiences of companies with mechanical loaders. One firm in a high wage rate field started as early as 1922 and gradually installed six machines of a certain make. Their operation was merely experimental in that the machines were not entirely successful and their weakness developed. But so convincingly were the possibilities of mechanical loading brought home to this company during these early days that it has since installed seven rugged machines of the same make. Following the later installation savings were immediately apparent and as the various operations were stabilized a gradual reduction in costs was effected. In a recent six-month run during which 120,670 tons was produced mechanically, a saving over hand loading of 41.2c. per ton or a total of \$49,716, was effected. At that, this company reports a low average rate of 112 tons per machine per shift and the average loading time of only 30 per cent of each shift.

E. H. Coxé inquired whether interest and depreciation were included in the computation of costs by this company. He was informed that these items were not included but that maintenance was. Mr. Dake answered a question relative to clearance, put by D. J. Parker, by saying that timbers must be kept 10 to 12 ft. from the face. J. J. Forbes asked what is being done to allay the dust stirred up by mechanical loaders. The reply was that nothing had been done in this direction with certain types of machine. Inquiry was made of the use of the Joy machine in the Pittsburgh coal seam. Mr. Dake said that two machines of this kind at work in this bed are averaging about 110 tons per shift each; drawslate is gobbled by hand.

Moving pictures of the Joy machine in operation in

a mine were then shown. The audience was amused by the speed with which cars were shifted in the picture and was told that only in movies is this being so successfully accomplished.

Some of the accomplishments of the Myers-Whaley loader in coal mine work were reviewed in an interesting paper by Charles C. Whaley of the Myers-Whaley Co., Knoxville, Tenn. He described conditions and results attained in one mine paying the high wage scale of the Central Competitive field. The bed averages 6 ft. thick and is overlaid with 6 to 14 in. of clod which falls with the coal. Rooms are driven 36 ft. wide and the coal is undercut and snubbed, and is well shot. A crew of 13 or 14 men, depending upon the quantity of clod which must be handled, and including one foreman, performs all duties incident to mining and loading. This crew in a month of 25 working days placed on the parting an average per shift of 191 tons at a cost of somewhat less than 82c. per ton, including all items, as against a cost of hand loading of about \$1.32, thus making a saving of 50c. per ton.

### KEEP AIRWAY CLEAN

He next called attention to an editorial in the Oct. 15 issue of *Coal Age* relative to keeping airways clean. The Myers-Whaley shovel is being used in a number of mines for this work and for taking top and bottom in other entries as well. The first machine of this kind used for lifting bottom was installed in 1922 in a central Pennsylvania mine in the Miller seam which averages about 36 in. thick. The machine lifted 3 to 4 ft. of bottom composed of bastard fire clay which broke in large pieces. Despite the fact that the work of the machine was confined to two dip headings which were wet and where the coal could be mined only one cut in advance of bottom taking, not to mention other difficulties encountered, the machine succeeded in loading, over a wide period, an average of fifty 1½-ton cars per shift, advancing each of the pair of entries 15 ft. per shift. The management reports that the cost of dead work was more than cut in half and the rate of entry advance was doubled. On the merit of these results this company has installed additional machines.

In 1923 another company installed a No. 3 Myers-Whaley for taking top and since has installed five more. Here again the Miller bed is being mined. This averages about 40 in. in thickness and is overlaid by a roof of laminated shale. Entries are driven 11 ft. wide and 3 to 4 ft. of top rock is brushed on all the mains. Coal is loaded by hand in a stretch of about 100 ft. in advance of top taking, throughout which distance permanent track is laid. Roof to the necessary clearance height in this entire stretch is brought down before the machine starts to load. Holes are shot in twos, one



near each rib, producing clean breaks. Jackhammers are used for drilling. By this means, barring haulage delays, continuous loading is afforded the machine and the cleanup advances regularly about 65 ft. each shift, the material filling eighty-five 1½-ton cars. The best record is 127 cars per shift. The crew consists of one runner, one helper and one motorman.

This company is using the same type of machines for cleaning up falls in aircourses in the Lower Freeport bed. Here the roof is of fire clay and falls to a height of about 2 ft. above the coal. Track is extended as required in built-up sections 7½ ft. long. Such a section can be added in about 10 min. The crew consists of two men who perform all duties connected with this job. The average loading rate is about forty 1½-ton cars per shift.

At still another operation during last July this company advanced an entry through 1½ ft. of coal and 6 ft.

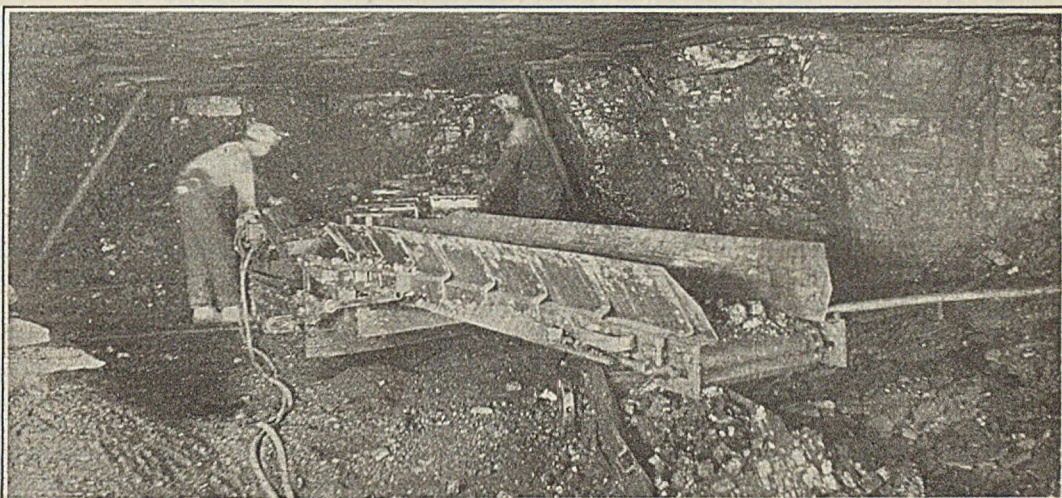
aid to the driving of narrow work the shortwaloader has been developed. This machine both cuts and loads. The average advance being made with it is 30 ft. per shift.

In one mine in 3½ ft. of coal a pair of entries was driven 1,800 ft. in three months by two shortwaloaders which worked single shifts. Breakthroughs were cut by these machines during the advance. In another mine in a 3½-ft. seam one machine cut and loaded 643 ft. in a month of 25½ working days, an average of 25.2 ft. per day. Still another machine advanced an entry 726 ft. in a month of 25 working days at an average of 29 ft. per day. This same machine maintained an average of 33 ft. per shift during 14 consecutive days. The longest advance made in any one day thus far is 42 ft.

Mr. Anderson said that in two mines where the entire output is loaded with shortwaloaders the output per man including everyone in the mine and tippie amounts

#### Short Face Loader in Entry

This machine will load out a place as wide as 35 ft. The rear conveyor reaches side-wise 13½ ft. from the main body of the machine which can also be swung at an angle to give 4 ft. additional reach from the center of the place. By using a face conveyor the workable width can be further increased. This unit cuts and loads coal in an advance of 5 cuts or 30 ft. in a place 15 ft. wide in 8 hr. regularly and has made an advance of 42 ft. in 8 hr.



of rock, on a dip of 7½ per cent, with considerable water, 214 lin.ft. in 26 working days. Two crews of 2 men each, performed all the duties including tramming.

W. L. Affelder, assistant to the president Hillman Coal & Coke Co., sees real value in the use of the Myers-Whaley for taking top or bottom in low beds and for cleaning up air courses in high ones. He is confident its use will be widened after it is equipped with an explosion-proof motor. Trot Dodson, vice-president in charge of operations, Pittsburgh Coal Co., asked if coal was separated from the rock in the last mentioned application in Mr. Whaley's paper, and was told that it was not. Thomas S. Lowther, mine inspector, Indiana, Pa., said that at the No. 45 mine of the Russell Coal Mining Co. at Clymer, Pa., top rock is taken with a Myers-Whaley in stretches of 200 ft. The rock is brought down 2 or 3 cuts in advance of the machine. The roof is a bastard fire clay that cannot be timbered economically. The machine loads 70 to 110 one-ton cars per shift. W. B. Wardrop, mine inspector, Barnesboro, Pa., pointed to the advantage of uniform head clearance which the machine provides. He stated that one company asserts that the yardage cost has been cut in half by this machine.

Continuing the treatment of mechanical loading devices, A. R. Anderson, Jeffrey Mfg. Co., of Columbus, Ohio, gave a number of results attained by the Jeffrey shortwaloader and conveyor, which equipment has been designed with the purpose in mind of concentrating the workings. None of this equipment is supposed to be moved from place to place after each cut. As an

to 10 tons, or more than double the average of 4 to 5 tons per man attained by the bituminous industry.

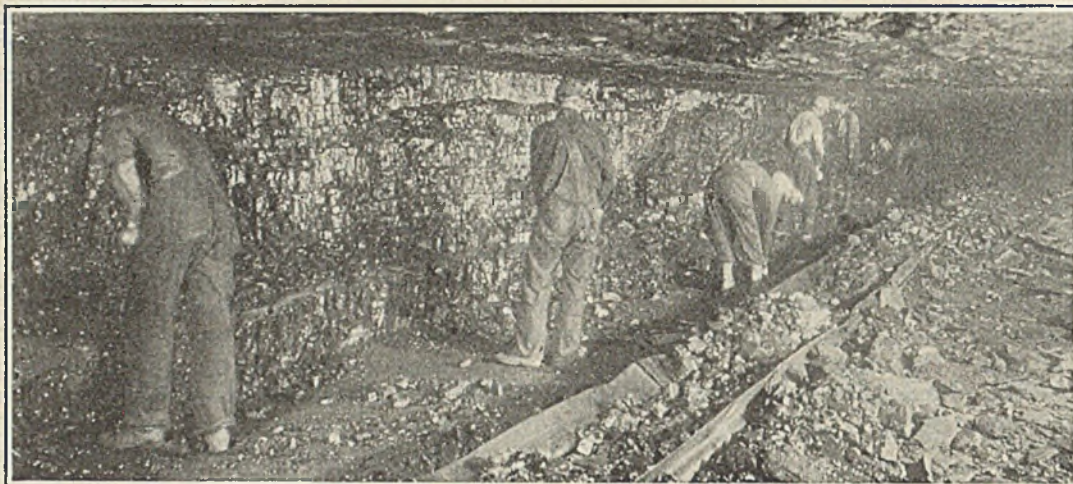
He next introduced the Jeffrey 44-B conveyor loader which is at work in several mines. This machine extends along the entire length of the face. As it is only 28 in. wide and 17 in. high, it is applicable to low coal as well as high and is well suited for long face work where timbers must be maintained close to the coal. In one mine where this machine is being used the coal is 3 to 3½ ft. thick. This machine is taking out two cuts on a 100-ft. face per shift. He declared that in high coal two cuts per shift can be taken, yielding a correspondingly higher tonnage.

In one mine the Jeffrey 47-A sectional conveyor is being used on a 300-ft. face. The coal is undercut and shot down on the night shift and loaded by 15 men on the day shift. This crew and equipment has loaded 480 tons in one shift, which is an average of 32 tons per loader. Moving pictures of the equipment described by Mr. Anderson were shown prior to adjournment for lunch.

The afternoon program of the first day was opened by the showing of a motion picture which presented the complete process of manufacturing wire rope in the plant of John A. Roebling's Sons Co.

Then Richard Maize, mine inspector, conducted the discussion on a group of questions, the first of which was "What New Work Has Been Done in Recent Years to Prevent or Reduce Mine Accidents?" William German focused attention on the prevailing dangerous practice of handling black powder in metal kegs. He





#### Conveyor on 300-Ft. Face

Here the sectional type conveyor is used on the face. Fifteen men are stationed at 20-ft. intervals along this face and have loaded as much as 480 tons of  $5\frac{1}{2}$  ft. coal in 8 hr. A night crew does the cutting, shooting, etc. Here a room pillar is being slabbed. The practice in this mine is to drive 12-ft. rooms on 95-ft. centers and then to take the pillar by slab cuts until it is only 30 ft. wide.

remarked that Du Pont now offers a black powder in pellet form which is not exposed and, therefore, is comparatively safe to handle.

E. J. Gleim, of the Bureau of Mines, related the work which the Bureau has accomplished during the last two years in testing and approving certain classes of machines and devices which meet the prescribed minimum safety requirements. During this time it has issued 24 new approvals so that now the Bureau's list of permissible equipment is wider and far more complete than heretofore. Prior to Jan. 1, 1924, there were no permissible room hoists, air compressors, mine pumps, power trucks and storage battery locomotives for main line haulage, but now this equipment is on the list. Further additions consist of four types of mining machines, one coal drill, six storage-battery gathering locomotives, five shot-blasting units, one flash light and one methane detector.

Two of the above approvals—the storage-battery power truck and the storage-battery locomotive—provide considerable possibilities for the reduction and prevention of accidents by enabling operation of a mine without the use of feeder circuits.

#### DISCUSS SAFETY DEVICES

H. H. Hamilton pointed to a safety blasting cap offered by Du Pont, the two ends of which are short-circuited to guard against stray currents and conducted currents up to 550 volts. H. D. Mason said the most available means of bettering safety is by living up to the compensation laws. A new safety device which automatically keeps sand dry and free-running was described by G. M. Crawford. It is offered by the Safety Electric Corp., of Philadelphia, Pa.

That codes of standardization go a long way toward eliminating hazards and bettering operations was the view presented by R. D. Hall, engineering editor, *Coal Age*. A few remarks were added by S. W. Blakslee, division superintendent, Pennsylvania Coal & Coke Co., Ehrenfeld, Pa., on the two-pointed merit of mechanical loading which affords concentration and, therefore, better supervision and increases the output per man which is not accompanied by any increase in accidents. A. N. Young, superintendent, Hillman Coal & Coke Co., mentioned a practice which has been established in a number of mines of inserting a wooden wedge between the brake lever and the ratchet of a mine car to avoid inopportune releasing of the brake after it is set.

W. L. Affelder believes the colored man is safer than the white because he is timid and cautious and, there-

fore, is careful. White men have been the victims of every fatal accident this year in one of his mines in which one-fourth to one-third of the men are colored. An issue arose as to the advisability of forcing men to sound roof frequently. Mr. Young explained a rule which one company has adopted requiring officials to compel miners to sound the roof every time an official visits their working place to get them into the habit. Mr. Affelder believes this rule attacks safety from the wrong end, making roof sounding mechanical and compulsory instead of premeditated.

According to E. E. Girod, mine inspector, a number of dusty mines in the southwestern part of the state provide water hose for every working place. He wants to see coal dust settled at the point of origin. Six mines have provided hose for each of their 1,500 workers and two other mines are following the suggestion. In five mines in his district water is applied to the ingoing bits of mining machines. In one of the latter mines coal dust was scarcely noticeable anywhere five weeks after the mine had been rock dusted.

T. G. Fear, general superintendent, Inland Collieries Co., Indianola, Pa., related one of his experiences at an Alabama mine. Here out of five fatal accidents only one victim was a negro despite the fact that 60 per cent of the miners were colored. He claims that superintendents and foremen should be held responsible for accidents to a greater degree than they are. Many accidents occur because of a lack of knowledge of conditions on the part of the management. One company in Pennsylvania having 14 mines provides its underground officials with printed forms in a book in which must be entered the conditions of each working place at each visit. Every two weeks these data are transferred to a master sheet for comparison studies, when various charges are counted. Two charges to any one man calls a warning and three brings dismissal.

The next question asked was whether or not it is an economy to leave a 100-ft. water barrier in mines adjoining worked out mines as in the coke region of Pennsylvania where the coal acreage is high-priced. H. S. Harrok, consulting engineer, of Pittsburgh, Pa., opened the discussion. He is of the opinion that the leaving of such a barrier, which is following precedent only, is a needless waste. He would leave only a 15-ft. pillar to protect ventilation and would pump the water. In a fair-sized mine the loss apportioned over the life of the mine might be as much as 7c. per ton, whereas handling about 3 tons of water for every ton of coal mined (the coke region ratio) would cost only about 2½c.



George Steinneiser, of Punxsutawney, Pa., declared that a 15-ft. pillar would not be sufficiently large to hold in the ventilating currents as it would undoubtedly crush. George S. Rice seconded that remark and called attention to the danger of encountering unexpected bodies of gas in the old workings. Mr. Harrok thinks that even a 100-ft. barrier is unsafe as the exact courses of the boundary of old workings are generally not known, for which reason there is danger of puncturing them. C. P. Bryne, mine inspector, advised drilling as a means of determining the extent of the barrier.

The vicissitudes of the water problem in the anthracite region have in some cases been due to punctured barriers, according to T. M. Chance, consulting engineer, of Philadelphia. He favors the leaving of an adequate barrier of a width fixed by conditions, half of which should lie on each side of the boundary line. He added that the danger of puncturing is removed by accurate mapping. Mr. Hall would donate a recoverable barrier to the mine that handles the water.

#### WOOD TIES FOR STEEL?

The third question of the day was: "Is the Arcing of Electricity Between Steel Rails and Steel Ties Likely to Cause a Mine Fire?" Mr. Affelder opened and led the discussion. Evidence and subsequent tests following a fire in one of the mines of the Hillman Coal & Coke Co., leads him to believe that a fire can be started in this way and caused him to replace steel ties with those of wood in this mine. The fire referred to occurred at the end of a retreating butt entry, about 200 ft. from the face entry on which had been shifted, before the fire was detected, a large trip of cars by a trolley locomotive which pulled away at a point abreast of the butt entry. He thinks that broken cross bonds outby of the locomotive caused the return circuit to travel only to the end of the temporary track where it arced between the rail and a steel tie, as the butt entry track was bonded on one side only, thus igniting fine coal on the bottom.

He described a condition which might have significance in the case, namely, a cannel coal roof over the coal which is so volatile that it can be lit to a glow with a match and which flakes and falls to the floor.

An investigation disclosed no other possible factors in the fire. A series of tests were staged in which arcing was caused in the manner described. Mr. Rice knows of fires which are assumed to have been started by such arcing in mines where wooden ties were installed. Graham Bright suggested the use of a double-conductor cable where a reel locomotive is used, or a storage-battery locomotive as a means to avoid the arcing. Mr. Affelder said that such provisions would not serve the specific purpose in that no wire extended within 200 ft. of the origin of the fire. Mr. Rice believed the cause was obviously that chosen by Mr. Affelder.

Edwin H. Johnson, mining engineer, Coloder Co., Columbus, Ohio, added a paper to the meeting's symposium on mechanical loading achievements. He sees the greatest future growth in mechanical loading machines in organized fields where it would be utilized as a weapon to reduce the cost differential between high and low wages. He looks for little opposition from the miners' organization whose leaders are ready to support gradual changes which will improve the working conditions of the miner. The surety of economies in mechanical loading at this early date is evidenced by

remarks coming from operators in fields where labor is scarce, to the effect that without mechanical loaders they would be unable to maintain their present level of production.

He referred to a new factor in mechanical loading, namely, machine accounting characteristics, which can be determined only after a long period of observation. This factor includes definite knowledge of "the capacity of a machine under known conditions, the degree of dependability for uninterrupted operation, the maintenance cost in repair parts and repair labor, the oil and power consumption per ton and the rate of depreciation." In this connection Mr. Johnson's paper briefed a statement by James Elwood Jones, general manager of the Pocahontas Fuel Co., which this year will produce by machine loading more than 1,500,000 tons of coal, that he can foretell a month or a year in advance, what tonnage can be produced at almost exactly what cost at any of his mines, some of which are being operated exclusively with loading machines.

He brought out the point that the loading machine is not so much needed as the engineering viewpoint in approaching the solution of physical and economic problems confronting the mine owner. He characterized the room-and-pillar system of mining as traditional, institutional, "from which any deviation is frowned upon by older heads." Departures from the old methods involve new problems which must be solved. Loading machines have stirred up revolutionary practice so that today operators everywhere are improving their haulage and tipples, experimenting with new shooting methods, studying roof action and developing long faces, hoping to obtain more efficient operation through the use of mechanical loaders.

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## Banquet Program Includes Movies and Music

The outstanding feature of the banquet was the story of the "Exploration of the Grand Canyon," delivered by Col. C. H. Birdseye, of the U. S. Geological Survey. It was accompanied by photographic slides and moving pictures of the explorers' boats shooting the rapids and of the topographers making their observations, the purpose of the survey and level, which was carried through the canyon, being to ascertain where sites for dams could be established advantageously. To this end explorations were made of canyons entering on both banks of the river to a level such as would be invaded by the water if the proposed dams were erected. One of the proposed dams will, if erected, be 566 ft. high, and the water behind one dam will back up in every instance to the bottom of the next above it.

Jesse K. Johnson, president, Ridgeview Coal Co., Bolivar, Pa., addressed the institute on the problems of the coal industry. He declared the operators were each engaged in seeking his own individual industrial advantage and viewed each question as a personal matter and not as one affecting the group. If they followed a principle of group action like the mine workers, they would gain for all what they could not obtain if each worked for himself.

Mr. Johnson said that not only had the miners in Illinois and Indiana penalized the operators by making a rate of \$12 per day for the loading machine operatives, but they had added to the handicap by producing only



125 tons per day per machine. The non-union mines in West Virginia paid \$5.67 per day and the machinery produced 300 tons daily. Yet the conditions in both regions were essentially the same. The "cost of operating the mechanical loader in union Illinois is 33.5c. per ton as against 7.08c. per ton in non-union West Virginia."

Mr. Johnson declared that the representatives of the U. S. Geological Survey had ascertained that at one large union mine where a careful check system is kept the miner only worked 27 per cent of the time. But this wage difficulty is not all. Mr. Johnson cited the freight-rate problems, saying that "The Pennsylvania R.R. has a rate to tide of \$2.50 per net ton for an average of 227 miles and a rate from central Pennsylvania to East St. Louis of \$3.82 for a haul of 700 miles. Anybody in a kindergarten would see that these rates are not equitable."

To the speaker it seemed that mergers were the only solution for the difficulties surrounding the operation of coal mines. "The operator," said he, "who thinks that overproduction will adjust itself is living in a fool's paradise and is due for a fool's awakening." Mr. John-

son called attention to the fact that a freight locomotive that in 1915 used 160 lb. of coal would do the same work in 1925 with only 55 lb., "L. F. Loree, president of the Delaware & Hudson Ry.," he stated, "said recently that in the present year \$200,000,000 may be saved in the operation of the trains of this country, and that the 90,000,000 tons of coal now used in freight service can be reduced to 27,000,000 tons." "Cars," added Mr. Johnson, "driven with engines of the Diesel type running between Ottawa and Montreal on the Canadian National Rys., consumed fuel of the value of \$5.87, while coal for an equal trip would have cost \$35 or more."

William C. Hood, the incoming president, made a short address and excellent music was furnished by the Johnstown Glee Club, which is composed of members of the Safety and Welfare Association of the Bethlehem Mines Corporation. The Club was represented by 22 male members and two lady pianists. They consisted wholly of employees of the Bethlehem company's mines at Johnstown, which company provides for their entertainment and transportation. Dressed in tuxedos the club made an "immense hit" with the audience, their technical talent being remarkable.

## Pillar Recovery and Underground Substations

In the expectation that some of the mines that have been operated at a low rate of extraction might avail themselves of means by which their abandoned coal may be recovered, Dr. J. J. Rutledge described the work of recovering pillars at the former Detmold, Savage and Jackson mines in Lonaconing, Md. These mines are some of the real old operations of the bituminous fields. Detmold, for instance, was opened in 1853 and Savage in 1861. The three mines have caved extensively but now are being worked, Detmold and Savage by the Maryland Coal Co., and Jackson by the Georges Creek Coal Co. The first concern is using less timber than the second but is failing to recover the bottom coal and roof coal in the rooms. This coal is being retrieved, however, in the mines of the Georges Creek Coal Co. There the old workings are completely opened up and the material that has fallen is cast over into the gob except what is clean coal, that material being loaded out into mine cars for the market.

Mr. Rutledge declared that in areas where the original operating concerns had removed only 5,000 tons per acre, the Maryland Coal Co. was now loading out a further 10,000 tons per acre, for there is as much breast coal in the pillars as there was in the rooms and there is also bottom coal and top coal in those pillars 3 ft. of the one and from 2 to 3 ft. of the other, and, moreover, both bottom and top coal are retrieved from old rooms as they drive their new entries and as they crosscut from their new rooms to standing pillars. The methods of working were described in *Coal Age*, June 20, 1925.

Dr. Rutledge explained that the Maryland law and that of Kentucky provided that juries could be taken on the ground to view the damage made by mining and that in consequence the awards were tempered in those states with better judgment than in Indiana and Illinois. It would be well if those mid-west states had such laws. It might be possible then to remove the greater part of the coal.

The mines in Maryland where the recovery of coal is going on have such a high degree of concentration,

especially as they are worked double shift, that an inspector can make a thorough investigation of such a mine in four hours whereas a similar examination of the thin Tyson-bed Mines above would take days, even though their outputs are no larger.

Elkins Read, of the Maryland Coal Co., in discussion said that in opening up the old rooms every alternate pillar might be skipped. If that were done it would be necessary to cross only one room when driving forepoling work through to recover the pillars. However, the skipping of every alternate pillar was found to weaken the roof so it was necessary to make the skipping only in one pillar of every three. In consequence two rooms have to be crossed by forepoling.

The cover being about 500 ft., the pressure is considerable. Mr. Read said that the miners, including those who were doing the forepoling work, averaged six tons per man. So far 350,000 tons had been removed by these methods without a single fatal or serious accident, though the work was dangerous. The men knowing the danger used due precautions, and consequently the excellent safety record detailed was attained despite the natural difficulties.

It was resolved after discussion that the Coal Mining Institute of America should become sponsor for George H. Ashley's coal classification, presenting it to the Mine Standards Correlating Committee for admission to the standards of the American Engineering Standards Committee. The standards were submitted to the Institute two years ago and were then studied by a committee which reported back to the Institute, giving them their approval.

C. H. Matthews read a paper on "Modern Practice in Underground Substations," saying that it was preferable to put substations underground where such stations were placed for the purpose of providing power at the working face. It was better to run the alternating-current cable down the borehole than to convert the current on the surface to direct current and put a direct-current feeder down the borehole.

He suggested that "permanent pumprooms generally



make good locations for underground substations, as there is an attendant available and as the alternating current power for the pump motors and for the converting equipment can be transmitted over the same cables from the surface. Recent application of complete automatic operation of centrifugal pumps may, in time, eliminate the pumproom attendant, but automatic control can, of course, also be used on the substation equipment. Even if an attendant were present the use of automatic reclosing circuit breakers on the direct-current feeders is recommended. Their use eliminates delays in operating the circuit breakers and prevents a careless attendant successively reclosing breakers on short circuits, thus injuring the machines.

"Where hoists are located underground it is sometimes possible to locate the converting equipment in the hoist room. In this case reclosing direct-current circuit breakers are a necessity as the hoist operator must give close attention to his hoist and cannot stop a trip to reclose circuit breakers. On the other hand, production cannot be held up waiting for circuit breakers to be closed."

In response to this statement Graham Bright remarked that the attendant on a substation had the easiest job around a mining plant. Mr. Bright regarded it as desirable that the station runner should have other duties than operating the converting equipment, enough at least to keep him from falling asleep. As the result of his freedom from toil he often neglected his few but important duties and, therefore, it was well not only to put an automatic reclosing circuit breaker on the line but to protect the alternating-current motor automatically against phase failure and the bearings against excessive heating.

Question No. 4, relative to arcing of electricity between steel rails and steel ties and the possibility of thereby starting a mine fire, was presented anew by M. D. Cooper, in reopening the question box. G. S. Rice said that he believed imperfect bonding was the cause of many mine fires even with wood ties. He had noticed evidences of such danger. Consequently the problem was solely: Did steel ties accentuate that risk? The menace was present in some degree no matter what kind of tie was used.

The next question, "What items should be entered on

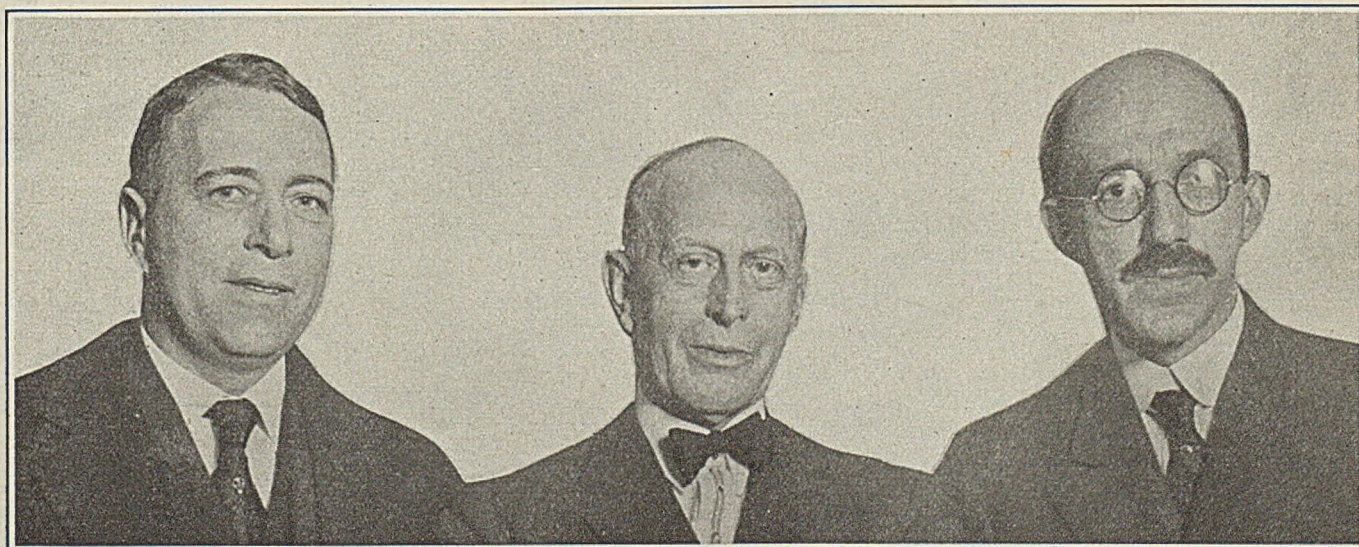
a coal company's cost sheet?" and "What constitutes what is known as strictly operating cost?" revealed that the standards of accounting prepared at great expense and much labor by the National Coal Association are not getting the observance their value and authority demand.

A. K. Pollock, of the Ford Collieries Co., said that as an operating man he naturally sought to have as little as possible charged to operating cost. F. B. Dunbar, general superintendent, Hillman Coal & Coke Co., wanted the most careful and day-to-day operating costs and the most general knowledge of those costs among the men in charge at his mines. Only when they were so provided and understood would the mine officials interest themselves in economical operation. J. K. Johnston urged that accurate operating costs be kept so that no one could fool himself that he was cutting costs when all he was doing was hiding his eyes to economic loss. Mr. Rice said that classifications and arrangements of costs were too often such that it was impossible to find out what costs were chargeable to mining, what to haulage, what to ventilation and what to drainage.

#### SINGLE ENTRY IMPERMISSIBLE

Mr. Dunbar, in replying to Question No. 6, as to the best method of ventilating single-entry work especially where new methods of mining are being tried out, said there was no proper method of driving single entry for single-entry development was itself impermissible. H. I. Smith wanted permissible motors and a permissible switch where auxiliary fans were in use, but Mr. Rice declared that if these fans were stopped there would be gas pockets and that if kept running 24 hr. per day it would be necessary to have continuous attendance, otherwise they might stop or a fall might cause an untoward accident.

Mr. Rice said that foreign practice in regard to boosters had been misrepresented. Booster fans were used, it is true, in foreign mines. Where the extension of the workings was considerable and leakage great and irreducible, the water gage used, though high, might be unable to cause the air to circulate in sufficient volume, where a single fan was employed. In consequence boosters might be used to meet this condi-



Ralph Beerbower

A. K. Pollack

A. E. Holbrook

Were among the members of the Coal Mining Institute of America at the annual meeting in Pittsburgh. Mr. Beerbower, of Pittsburgh, and Mr. Holbrook, of State College, Pa., retired as managing directors of the Institute. Mr. Pollack is general manager of the Ford Collieries Co., Curtisville, Pa.



tion, one unusual in this country. This need is particularly pressing in the mines which, being driven far away under the sea, cannot shorten the length of their aircourses by auxiliary shafts.

In Germany and France tunnels driven across the strata are, it is true, ventilated during construction by auxiliary fans and air ducts, but these fans are

driven by compressed air and no development is attempted till these tunnels have reached workings so as to permit the ventilation to be established by the action of the main fan. H. N. Eavenson declared he had given the matter no thought, but he didn't like single-entry methods at all and E. H. Coxe was about equally unfavorable.

## What Shall We Do About Mine Timber?

The Thursday afternoon session opened with a paper by H. S. Newins, Department of Wood Utilization, State College, Pa., on "Our Mine Timber Supply in Pennsylvania and in Other Coal Producing States." This will appear in a later issue of *Coal Age*. He mentioned the fact that where the moisture content of the wood is kept below about 20 per cent rot is largely eliminated; but this condition would require a low relative humidity. Inspector Girod for obvious reasons would avoid the establishing of this condition as a means of preserving mine timbers and stated that mine owners must adopt some other expedient or else suffer the loss caused by rot. In his paper Mr. Newins suggested for secondary preservation and for protection the use of plastered or projected concrete on creosoted timber lining in downcast shafts. Graham Bright wanted to know whether projected concrete alone would serve the purpose and was told that the timbers must first be immersed in or brushed with a preservative solution if rot is to be avoided.

Mr. Newins explained that dry rot is contagious; that the practice of scraping from wood exterior growths of fungi is not beneficial and may serve to spread the disease to nearby healthy timbers. Dry-rot fungi are not necessarily developed by a low relative humidity nor by a high. Good ventilation checks their growth. J. T. Ryan asked if limestone dust has any tendency toward preserving timbers. He was informed that it has none. Patrick S. King, mine inspector, wonders why conifers are so widely chosen by coal companies in the reforestation of denuded or partly stripped timber lands. The answer is that conifers are most easily handled and transplanted because of their

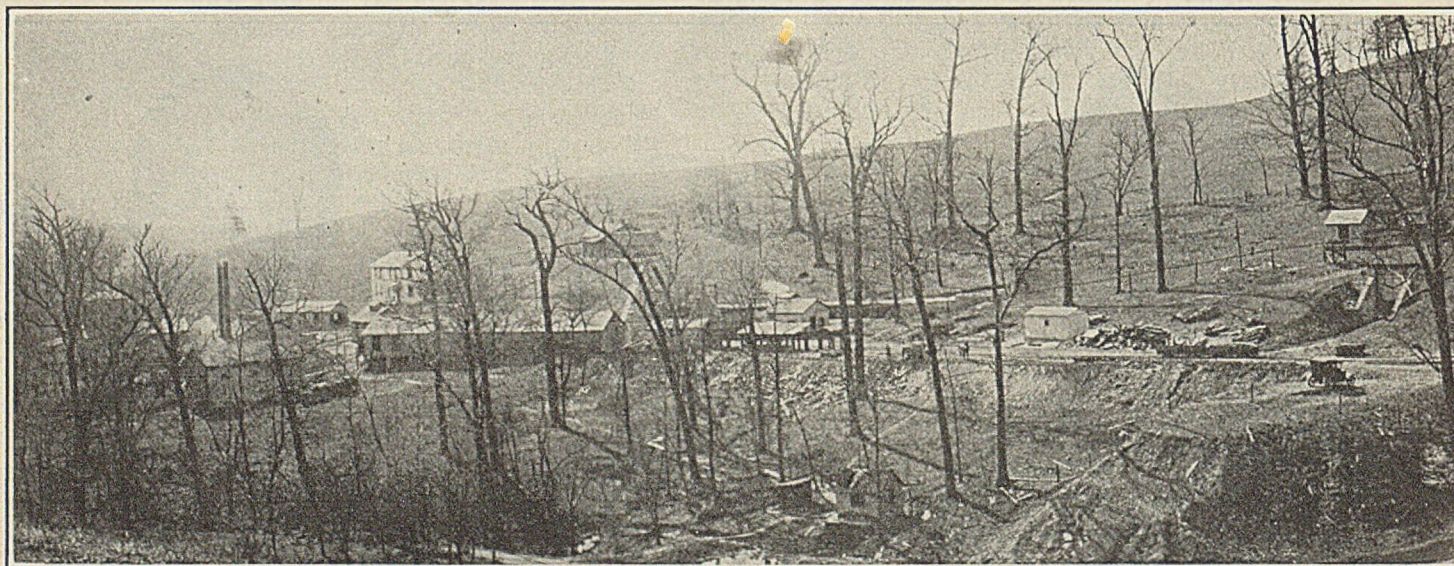
shallow rooting as against the hard woods which are hardest to handle.

Mine Inspector Ira Thomas, of Johnstown, Pa., sought an explanation of the methods of creosoting timbers. One way is by brushing; another by immersion in a bath of creosote which is alternately heated and cooled until the desired penetration is obtained. J. J. Forbes, of the Bureau, desired to know what degree of penetration is needed and was told that penetration must be deeper than injuries by abrasion. Brushing is quite satisfactory on timbers not exposed to abrasion.

The next paper on "What Some Coal Companies Are Doing to Replenish the Mine Timber Supply" was read by Graham Bright in the absence of the author, Newell G. Alford. This paper also will appear in an early issue of *Coal Age*. The paper indicated what might be expected as the normal growth in the consumption of timbers by coal mines in the future. Mr. Rice expressed a thought that concrete and other substitutes, might lower the consumption of timber by mines because of the increasing cost of the latter. Mr. Bright looks for no such effect in the next ten years at least.

Because of its rapid growth, would not the catalpa tree be well suited for reforestation, wondered Nicholas Evans. Mr. Newins answered this question. Quick growth is not a factor inasmuch as properly developed reforestation programs involving trees of stronger wood structure will meet and exceed normal demands upon them. Mr. Rice was told in answer to a question in this regard that the catalpa is about as susceptible as and less desirable than many other trees.

At this point R. M. (Bob) Lambie, chief of the West



**Bruceton Experimental Station, Near Pittsburgh, of the U. S. Bureau of Mines.**

On the last day of the Institute's meeting the men went to this station where various demonstrations of rescue and safety equip-

ment were given, and where a coal dust explosion was put on. At the right is seen the steel testing gallery. In this gallery



Virginia Department of Mines, was asked to make a few remarks. He is not bothering about, nor is he elated by, high production in his state which is now leading all others. He has an eye more for safety and was happy in being able to announce that his force has been increased by three men. His department is doing things in the interest of safety. The Bureau of Mines has loaned him the services of W. H. Forbes of Huntington, W. Va., who is now engaged co-operatively in a study of roof conditions in West Virginia mines, toward the end of uncovering wider knowledge of roof control which will be passed on to the operators.

A question box discussion then ensued, led by Mr. Fear. The lead-off to this part of the program was a paper by J. E. Tiffany, Bureau of Mines, covering methods of producing more and better lump coal, in which he gave several methods of shooting under various conditions. One mine in Illinois producing 4,000 tons of coal a day has been able by a standard system of shooting alone to increase by 2 per cent its yield of 6-in. lump. It is possible to get straight ribs with top cutting but not always uniformity of depth of the cut. Rib holes always should be placed parallel to the rib at a point from 1 to 3 ft. from the latter.

Exception was taken by Mr. Fear to one of Mr. Tiffany's statements regarding the degree of increase of lump coal by the use of rock dust stemming. This practice when properly followed will yield a good deal more than a 5.4 per cent increase in lump coal. The rock dust should be deposited lightly in dummy cartridges which should have a 1½-in. diameter for a 1½-in. hole, and the ends should be more or less open. Mr. Maize wanted to know whether more lump coal can be produced by tight tamping of rock dust stemming. Mr. Fear said "yes" but Mr. Tiffany said "no." The latter has been able to increase the lump by 5 per cent by this means. Tests show that tightly tamped rock dust can be compressed to at least one-half its original volume by heavy hydraulic pressures.

C. W. Nelson, explosives engineer, Hillman Coal & Coke Co., has found certain plants increasing the production of lump by reducing the diameter of the cartridge and lessening the weight. The length of the charge is an important consideration. At one mine the

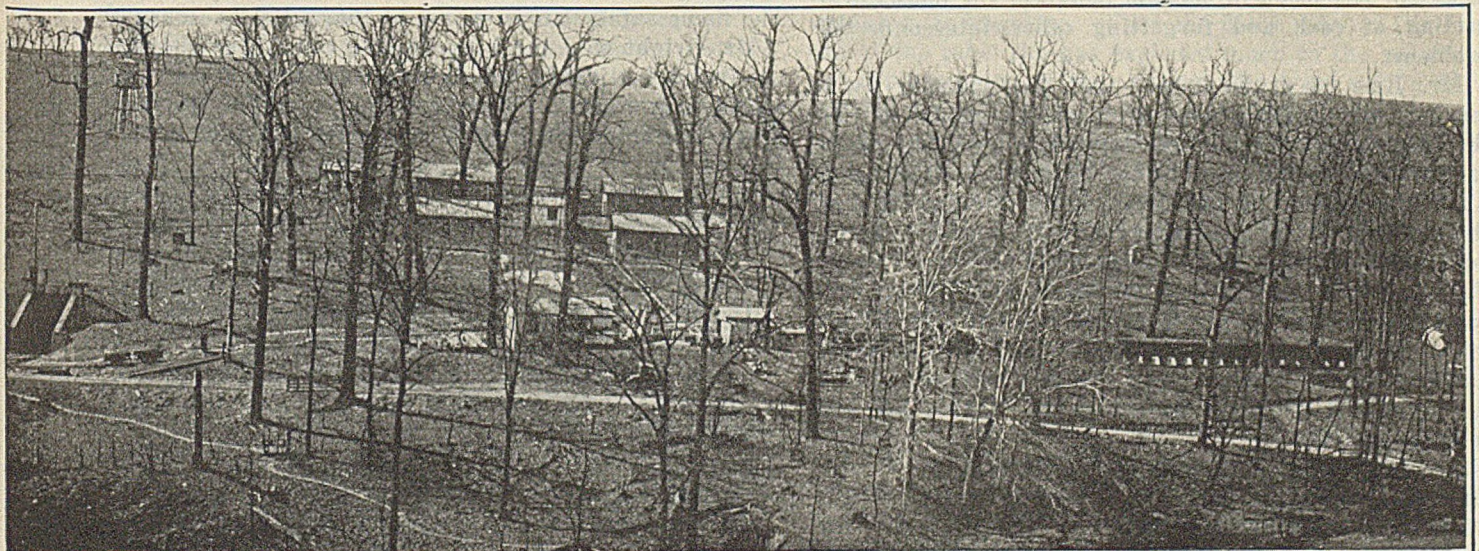
diameter of the cartridge was reduced from 1½ to 1¼ and then to 1¼ in. with increasingly better results and at a saving in powder cost. Companies should find out how small a diameter can be used and what is the deterioration in the explosive of a cartridge of the minimum diameter. Supervision in shooting is of little benefit without standard and uniform powder.

E. H. Johnson believes as good results can be obtained with permissible explosives and rock dust stemming as can be obtained in the same way with black powder, providing the charges are scattered. B. L. Lubelsky, explosives engineer of Washington Gas Coal Co., and former research man of the Bureau of Mines, discouraged the propensity toward the use of black powder as a producer of more lump coal. His research tests show that a high-rate permissible gives the best results. In a loose coal the gases arising from a slow powder escape along the bedding planes. Slow powder is all right in hard coal but in soft coal he encourages the use of a fast powder.

#### BLASTING COAL FOR LOADERS

Here the discussion turned to a specific question: "What is the best practice for the blasting of coal for mechanical loaders and do the latter have any decided effect on lump coal?" To get best results in shooting coal for mechanical loading he would use four or five shots instead of two or three, without increasing the total quantity of powder. Snubbing shots are quite beneficial. Mr. Nelson asked if it would be practicable to shoot and load mechanically a cut in two steps. That procedure would further reduce the now comparatively low running time of the loading machine. H. H. Hamilton called attention to the fact that the deeper cuts which mechanical loading is generally commanding will require radical changes in methods of shooting.

Mr. Johnson stated that unduly hard shooting and not the loading machine causes pronounced degradation of coal in mechanical mining. A comparison of results attained in two mines by a company in the Pocahontas field—one producing 50 per cent of its output with loading machines and the other its entire output by hand loading—showed that the former loaded 17 per cent less slack than the latter



It was Visited by the Coal Mining Institute of America Last Week

miniature explosions of gas, coal dust or both are staged. In it developed pressures, temperatures, etc., are carefully recorded

and the manifestations studied. Some of the explosion tests the Institute saw were terrifying to novices.



The eighth question was "Is scientific management applicable to the coal mining industry and can anything be learned from manufacturers?" Mr. Fear regards mine supervision wholly inadequate as compared, for instance, with outside gang labor where in spite of the fact that the men work together in large groups, and in plain sight of the overseers, a larger number of the latter for a given number of workmen are provided than in the coal mines. Of recent years, however, supervision has improved. He prefers the name "section foreman" to "assistant foremen" and does not extend the authority of any beyond the limits of a section.

J. K. Johnson, Bolivar, Pa., believes there are wide possibilities in scientific management especially in laying definite construction plans in advance. One company asked a superintendent to lay out and estimate the cost of a five-year construction program for his mine. This was passed on by the engineering department and then reconsidered by an outside party after which it was presented to the board of directors. The latter approved the program and appropriated the necessary funds without argument, chiefly because the program was carefully planned.

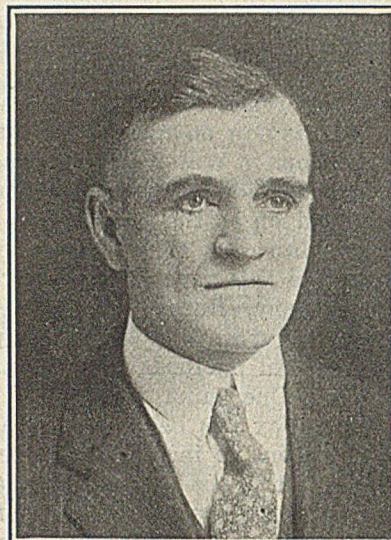
Mr. Fieldner believes the industry can learn much from other industries and by research. He pointed to the accomplishments of the co-operative research fellowships between the Carnegie Institute of Technology and the Bureau of Mines which are being supported by industries, as convincing evidence. Mr. Hall said that the manufacturer does not leave design to workmen. In the factory everyone knows what to do and how but in the mines there are no standards and, consequently, jobs are done in a hundred different ways apparently without knowledge of the best. Mr. Fear thinks every operation should have a good mechanical man as well as a mining engineer and a chief electrician.

#### MUST CONSIDER ALL PROBLEMS

M. D. Cooper, assistant general superintendent of the Hillman Coal & Coke Co., believes the widest avenue leading to improvement lies in the rerouting of coal as it lies in the rerouting of materials in the factory. There is danger of concentrating too much on one aspect of the problem, as, for instance, the mechanical loading of coal, and forgetting other interconnected problems.

Mr. Rice let it be known that the industry owes much to the manufacturer, who has supplied much of the mechanical brains. Sometimes, however, the manufacturer forces the mine owner to fit his conditions to a machine instead of vice versa. Capt. Steidle deplored the fact that few mine owners really know what is being done, nor how long it takes to do a job or what it costs. This fact was brought home to him during his investigations on behalf of the Coal Commission. The Lynch mines of the U. S. Coal & Coke Co. in Kentucky have, and continually compile, data of this sort which are weighted and averaged as standards. These are the tools of the officials.

The last question of the day, "Is it safe practice to use open lights in so-called non-gassy coal mines?" unloosened some pointed remarks. Frank Dunbar, of the Hillman Coal & Coke Co., knows of no non-gassy mines. One can't be too careful, he warned, for the open light is a danger in itself in home, factory or mine.



D. R. Blower

A member of the Institute from California, Pa., who served as a managing director during the past year.

Mr. Thomas said that while the state mining law allows open lights in some mines he condemns the practice even though in a number of old mines, as in those of the Broad Top field and surrounding regions of Pennsylvania, no gas has been detected by ordinary means in 60 or 70 years.

Mr. Hall insists that laws governing other practices must follow immediately after exclusive use of electric cap lamps in our mines, as compulsory use of permissible equipment and flame safety lamps everywhere. Otherwise, he believed men would carry matches and resort to other unsafe practices. Mr. Rice said that too much reliance should not be placed in ventilation as a means of keeping mines clear of accumulations of gas. Men not of that belief have had disastrous explosions. He seconded Mr. Hall to the extent of expressing a view that flame safety lamps should be installed for inspection purposes in conjunction with electric cap lamps. The flame safety lamps should be magnetically locked.

Mr. Bright said the rock dusting committee showed no discrimination in its recommendations as between so-called non-gassy mines and gassy mines. He believes this would be a good suggestion to apply to the case of electric lamps vs. closed lamps. As the flame safety lamp will not detect methane in quantities much less than 1 per cent many men feel safe in this regard but the chemist always finds it. Mr. Fear said it costs the mine owner nothing to install electric cap lamps.

The program closed with the reading of the following resolution:

WHEREAS, the U. S. Bureau of Mines has established stationary and traveling centers of instruction in safety, mine rescue, first aid and mine recovery; has given valuable aid to the industry in making mines safe; has assisted helpfully in mine rescue work, and has accumulated stores of information relative to safe conduct of mines, be it

RESOLVED, that the Coal Mining Institute of America emphasize to the new director of the U. S. Bureau of Mines, Mr. Scott Turner, Mr. Hoover and others the importance of this work, which has proved so helpful to the industry, and urges that this work shall in no way be restricted on account of other activities.



## Institute Sees Explosions in Bruceton Experimental Mine

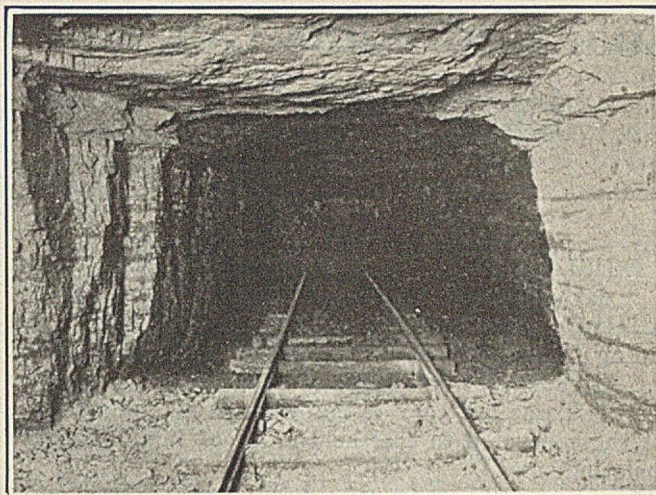
ONE OF THE TESTS being made as a part of the regular investigations of the U. S. Bureau of Mines was staged on Friday morning, Dec. 11, for the edification of the members of the Coal Mining Institute of America, most of whom journeyed in automobiles to the experimental mine at Bruceton, Pa., where the tests were made.

In the end of the right-hand main entry a large number of gas jets had been installed on the floor, and arrangements were made to shut in these jets behind a paper diaphragm located at a point 50 ft. from the face. The cross-section of the entry measures 6x10 ft. approximately, so it is estimated that back of the diaphragm was about 3,000 cu.ft. of air. Enough gas was released to bring the gas content up to 10 per cent. The gas used was the natural gas which is conveyed to Bruceton by pipes.

In front of the diaphragm were shelves which extended 475 ft. outby and were covered with a mixture of 65 per cent shale dust and 35 per cent sub-bituminous coal from Hanna, Wyo., both reduced to powder of standard fineness. Similar charges of a like mixture of Hanna coal dust and shale dust were placed in the crosscut near the diaphragm and in the heading parallel to the right-hand entry which also comes to the surface.

The dust-charged shelving in this case extended to a point 25 ft. further from the surface than the shelving in the right-hand main entry. The gas behind the diaphragm was set on fire by a black powder igniter. When the gas was exploded the crowd alongside the portals was immensely impressed by the terrific rush of wind laden with dust which swept out of the mine and licked up everything in its path. Some of the visitors who were located alongside the right-hand main entry, which was the one in which the gas was released, declare that they saw flame in the whirlwind and the Bureau of Mines officials announced later that evidence of the passage of flame beyond the dust-charged shelving was obtained by observations made in the instrument station on the hill.

At the close of the explosion four men wearing four different types of oxygen-breathing apparatus and four men wearing all-service gas masks entered the mine to take samples. Later these samples were tested with the Orsat apparatus and no carbon monoxide was found, but it was stated that the Orsat appa-



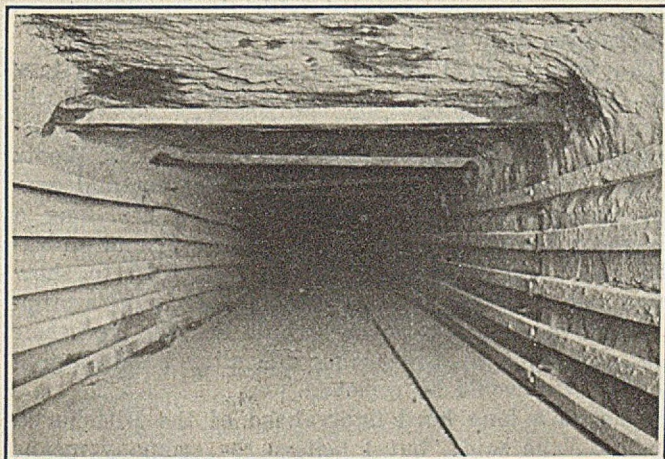
Where Rock Dust Zone Ends in Experimental Mine

ratus gives unsatisfactory indications of this gas, and being correct within one- or two-tenths per cent. Such a concentration would be sufficient to paralyze a man in an hour or so. However, the canary and the hoolamite indicator both showed that carbon monoxide, if present, was in low concentrations.

Prior to this important test the Bureau of Mines arranged to precipitate 30 lb. of Pittsburgh-bed coal dust in the main entry of the mine near the portal in such a manner that it would be carried by the outgoing air to an electric arc and later, in another experiment, to an open flame. In each case there was a general and sudden inflammation which extended to the surface. Some stationed themselves inside the mine behind the curtain of coal dust, and the view they obtained of the rapid combustion was one never to be forgotten. The flame filled the whole cross-section of the entry. There was, however, no violence.

Rock-dust barriers of proved ability to stop mine explosions were exhibited on the surface and tripped by the pulling of wires or the operation of vanes. Later, a steel tube, 12 in. in diameter and over 100 ft. long was filled with natural gas and air, the gas concentration being 7 per cent. Flame was applied at one end and in a slow, quiet way it propagated the full length of the tube, the Institute members in stooping posture watching its progress. When the flame reached the far end of the tube, the gas exploded much to the surprise and consternation of the visitors who were not in any position to make a quick run to safety should such a run be necessary. When an inflammation starts at the open end of a gallery it travels slowly and builds up but little pressure. When it starts at the closed end of a pipe, entry or chamber, however, as did the big explosion in the mine, which was staged later and has been already described, the effect is far more violent.

Demonstration in a glass gallery of the explosion of coal dust by an open light followed after lunch. A shot of permissible was then made into a gallery designed and erected for the testing of permissibles and another also against a ballistic cannon which measured the force the explosion generated. Finally a shot of black powder in the gallery with 50 lb. of coal dust present brought the usual violent explosion with flame spouting from the end of the gallery and from the many port holes. A brilliant exhibition was the explosion of a steel keg of black powder by contact with a charged electric wire. Later a trip was made through the experimental mine to see what the results were.



Rock Dusted Entry in Experimental Mine



# Coal Problems Get Much Attention at Washington Convention of American Mining Congress

By E. W. Davidson

Managing Editor of *Coal Age*  
New York City

LEGISLATIVE and economic coal problems of the day absorbed a good deal of the time of the twenty-eighth annual convention of the American Mining Congress at Washington, D. C., Dec. 9, 10 and 11. Attendance, never large at this mid-winter "policy meeting," was not easy to maintain at all the sessions, but those devoted to coal held much of interest to the whole industry.

The convention gave Secretary Herbert Hoover of the Department of Commerce opportunity in a banquet address to impress his hearers with his desire to make the government a friend rather than a suspicious guard of mining industries and provided a propitious moment for him to infer his opposition to radical coal legislation by declaring, "You can't catch an economic law with a policeman."

It gave Secretary of Labor James J. Davis a chance to propose that the coal industry try curing some of its own ills by creating a fact finding commission of its own to regulate the industry from the *inside*. He suggested a coal dictator of the Will H. Hays variety and took a rap at railroads for contributing deeply to the grief of coal by buying fuel off their own lines and at less-than-cost prices.

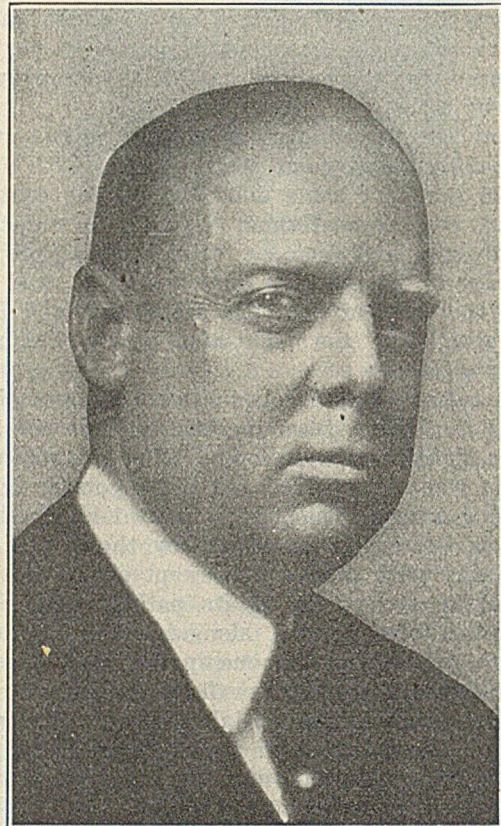
There was opportunity also for Samuel D. Warriner, chairman of the Anthracite Operators' Conference, to make a strong re-setup of the anthracite operators' case and for several other coal men to speak some truths about coal.

The meeting elected D. B. Wentz, a well-known coal operator, president of the congress for the forthcoming year, the manufacturers' division began its plans for a great coal show and technical convention next May, the standardization work of the congress moved forward a notch, government and business was discussed and nearly every man in attendance visited the White House to receive President Calvin Coolidge's how-do-hurry-along handshake. However, it was a leisurely convention.

"I am surprised that the expression 'too many miners' recurs so often in present-day discussions of what ails the coal industry," said Josiah Keeley, president of the Cabin Creek Consolidated Coal Co., the first of several speakers who reported on mining conditions in various parts of the country at the opening session Wednesday under the chairmanship of vice-president Wentz. "The real trouble is only 'too many mines.' Why, in West Virginia today I don't know a single mine that has enough men."

He appealed for some remedy for overdevelopment—probably greater consolidations—adding that he did not believe West Virginia non-union operators were fooling themselves into thinking the present labor condition there would continue indefinitely. Even though some of the men working non-union there right now are making more than they have made since 1915, still they have been fooled so often by union leaders and operators alike in past years that now they have none too much confidence in either.

Duncan Kennedy, secretary of the Kanawha Coal Operators' Association, was inclined to discount Mr. Keeley's thought that non-unionism is unstable in West Virginia. He agrees, however, that "the labor policy of the state is charged with dynamite." He thinks the union will never again rise in Kanawha, the arrogance of local and district leaders having killed it. The few



Col. D. B. Wentz

Elected president of the American Mining Congress for the coming year. He served as vice-president of the congress during the past year. Colonel Wentz is head of the Stonega Coal & Coke Co. and associated interests.

union camps in the region are maintained, he said, by the United Mine Workers' payroll. The men in the mines generally are satisfied with the treatment operators give them and are working loyally.

The venture in 1917 wages within union territory now being made by the Pittsburgh Coal Co., the Rochester & Pittsburgh Coal Co. and the Buffalo & Susquehanna Coal & Coke Co. was mentioned by Mr. Wentz in introducing A. P. Cameron, vice-president and general manager of the Westmoreland Coal Co., long a non-union company. Mr. Cameron said his organization had spent "a mint of money" in 1910 to show union men that they could not run the company's property and that if all operators would do that, and then treat men right, the great labor difficulties handicapping the industry would be removed.

"There's a long hard fight ahead of the Pittsburgh Coal Co.," he said, "but I believe the company means business and will stick to its less-than-Jacksonville-



wages program. The situation in western Pennsylvania is a little dark just now but is quite satisfactory for all that."

President Coolidge, unable to attend, sent greetings to the Congress in a letter in which he hinted at no government control or operation of anything, but said rather that "the eventual solution of the large problems of industry will be solved through the earnest, united and unselfish labors of men comprising such organizations as yours. So far as lies within its power the executive arm of the government is ready and willing to lend its aid in this work."

The Wednesday afternoon session was given over to a discussion of mine taxation but no emphasis was put upon coal tax problems. Paul Armitage, chairman of the general tax committee of the congress, presided. The speakers were Joe J. Manlove, congressman from a Missouri district, and George R. Holmes, of New York.

#### "STRIKE CREATES NO CRISIS"

Although Secretary Herbert Hoover was the principal speaker at the Wednesday evening banquet, Harry N. Taylor, head of the United States Distributing Corporation of New York won the most space in the next morning's newspapers by declaring that "there is no crisis created by the anthracite strike." He said 90 per cent of the people already burn soft coal and the rest can get used to it soon. Anthracite producers are losing some domestic business permanently, he declared, but their principal loss in this strike is steam business which covers 50 per cent of the anthracite produced. This they may never recover.

If the strike is not settled by Jan. 1 it might as well run until next summer so far as the people of the country are concerned, said Mr. Taylor. He hopes nothing will interfere with the anthracite operators carrying the fight to a finish for a settlement that is final and right.

Senator Oddie, chairman of the Senate committee on mines and mining and who has some coal men disturbed by his new coal bill, paid tribute to Secretary Hoover as the most favorably known engineer in all the world. Because the Bureau of Mines is now under Mr. Hoover's direction, he prophesied greater co-operation between the department and Congress on mining legislation than Washington has ever seen.

"No man with a double chin ever leads a double life," neatly epigrammed former Senator C. S. Thomas of Colorado, the nimble-witted banquet toastmaster, as he introduced Secretary Hoover. He was not defending the eminent Secretary's morals, which do not need defence, but was merely explaining why Mr. Hoover, being only one man and with but twenty-four hours a day at his disposal, has not accomplished everything everybody expects of him.

Mr. Hoover, in guarded phrases treated only indefinitely the big problem of possible legislation looking toward outside interference in the mining industries of the land. He did make it plain, however, that he favors no legislative efforts calculated to guide economic law in its operation upon industry. "You can't catch an economic law with a policeman," said he, and his attentive audience put its own obvious interpretation upon his words.

He pointed out that the mining industry is "older than the tablets handed down on the Mount" and that in all the ages it has conformed to the immutable

economic laws which still delimit its functioning. Therefore, there is no need now for government correction. He holds that government can serve the mining industry technically but not by economic meddling "unless the ten commandments can be changed." However, he urged the members of the Congress to "keep up your interest in legislation. We are going to need you all."

The organic law creating the Department of Commerce provides, he said, that the Secretary shall "promote and foster" industry. This puzzles him, for anybody in Washington who sets out to "foster" any industry is under grave suspicion to say the least. But he does understand the soundness of promoting industry and that end will be served, he thinks, by the recent transfer of the Bureau of Mines from the Department of the Interior to his own department. An economic division, widening the service of the department to industry, will be created as from Dec. 15, he announced.

Mr. Hoover took occasion to pay high tribute to the type of men that have been in the service of the Bureau of Mines in the past, most of whom have made heavy financial sacrifices to remain in government employ. He expressed regret at the departure of Director H. Foster Bain but assured the Mining Congress that in Scott Turner the Bureau leadership will be of the ablest. Mr. Turner, he said, is giving up business connections that pay him five times the salary he will receive from the government.

The big coal session of the convention was that of Thursday morning when James J. Davis, Secretary of Labor, proposed an internal fact finding coal commission and declared railroads could correct many coal ills by better buying. James Murdock, former Minister of Labor in Canada, described the operation of the compulsory arbitration law of Canada, and S. D. Warriner, chairman of the Anthracite Operators' Conference, made a clear-cut statement of the operators' position in the present strike printed on another page of this issue.

Secretary Davis, approaching his proposals for the correction of coal's troubles "from within," said that great as is the necessity for curing labor troubles the greater need is to cure other economic disturbances inside the industry. Although in 23 years, from 1900 to 1922, a total of 207,000,000 man-days were lost in strikes in the American coal industry that accounts for but 14 per cent of all lost time. No markets, car shortage and mine disability roll up the far greater total.

#### INDUSTRY MUST PROTECT ITSELF

The problems of intermittency of operation, irregular employment, unprofitable production for owners and unsatisfactory wages for miners caused by "too many mines and too many miners," must be solved. He knows of no legal restriction that can be put upon overdevelopment or overmanning of the industry. Therefore, he thinks the industry itself must prevent them.

"It would appear," said he, "that within the industry real progress might follow the adoption of a scientifically developed plan for voluntary reduction in the number of high-cost mines, limitation of the new mines to be opened, an arrangement for absorbing into other industries the surplus mining labor, and a policy of discouraging the employment of casual mine workers in the busy seasons by confining such work to the steady employees of going concerns.

"For this very difficult undertaking I believe that a fact finding commission should be established within



the industry itself to be composed of equal representation of miners and operators with a disinterested chairman. Such a commission, composed of leading minds from operators and workers, and animated by a spirit of co-operation and mutual trust, would be at once far more expert and better informed than any commission working from the outside. An inside body of this nature would possess a practical knowledge of every phase of the mining industry, from the mining to the marketing of coal, such as no other body of outside experts could hope to possess. If established by the industry itself, such an inside commission would instantly command the confidence of the public, as an expression of good faith on the part of the industry to begin with. I earnestly urge both operators and miners to consider seriously some such means—the only means available, as I see it—for overcoming the first evil of over-development.

"Among other factors necessary to stability of operation and employment I regard as important a broadening of railroad policy in the purchase of fuel. If each railroad bought its coal of mines along its own lines, and paid a price that would insure a reasonable profit, and bought at such season as to insure more regular operation, another great evil of the coal industry would disappear. As now, some railroads bargain for their coal on the lowest price offered, by mines often remote from their systems. The consequence is that operators on their own lines frequently furnish railroad fuel at a loss. The communities about these mines are impoverished, general freight and passenger business is curtailed by this custom of buying coal mined in fields away from their own roads and the railroad itself is thus the sufferer by its own fueling policy. It would seem to me good business for every road, where possible, to buy its coal from mines on its own lines and at a fair price to all concerned."

The Secretary of Labor declared for voluntary arbitration. Compulsory arbitration, however, having failed in Australia, Canada and in Kansas, is hopeless, he thinks.

As a final word to coal men, he urged them to choose a "national figure," a man skilled in law and business administration, to apply whatever corrective measures may be proposed by the suggested fact-finding commission.

Canadian compulsory arbitration is not the complete failure it is so often pictured. Mr. Murdock told the convention. The industrial disputes act prohibits strikes or lockouts before and during conciliation proceedings. Since 1907, he said, out of 638 applications for arbitration boards 450 have been granted and the remainder of the cases settled by the labor department. In only 38 cases did the machinery fail to prevent strikes or lockouts.

Some progress toward getting mining standards approved by the American Engineering Standards Committee was reported by Col. W. R. Roberts, chairman of the congress standardization division on Thursday afternoon. The congress report on mine ventilation was adopted that very day in New York by the A.E.S.C. and was said to have been sent out for a formal letter ballot.

However, there had been such difficulty getting the ventilation code adopted that Colonel Roberts was moved to charge the secretary of the A.E.S.C. with "irregularity" and violation of the rules of his own organization.

The Colonel said the ventilation report had been unanimously adopted by a section of the A.E.S.C. correlating committee and, therefore, should have received the formal approval of the correlating committee Nov. 11 in New York. It did not, however, and the correlating committee voted to send it back to the sectional committee for alteration on the ground that the Bureau of Mines, one of the original sponsors, had withdrawn its approval.

#### COLONEL ROBERTS DOES BATTLE

It appears that one Bureau engineer, who represented the Bureau officially, had approved but that a superior objected. Colonel Roberts said that on Nov. 11 he notified the correlating committee that if it insisted upon referring the report back for change he would appeal to the whole American Engineering Standards Committee the next day. This he did and won a decision to mail the report out for a letter ballot.

He said, however, that the secretary did not mail it and that no action took place until the one in New York Dec. 10 which assured the adoption of the committee report as a tentative American standard.

Colonel Roberts reported that the congress' committee



American Mining Congress Assembled with President Coolidge



reports on drainage and underground transportation are getting attention from the sectional reviewing committees of the A.E.S.C. and should soon be acted upon after more than two years of delay. This delay, he said, was largely unavoidable because of the A.E.S.C. geographical and industrial distribution of the A.E.S.C. committee personnel. However, future action ought to be swifter, he thinks. Three other reports of congress main committees are awaiting review by the A.E.S.C.—reports on outside coal handling equipment, power equipment and power transmission.

The remaining two main coal mining branch committees of the congress—those on mine timbering and on underground mining and loading machines—did not finish reports in 1924. However, several subcommittee reports on parts of the mine timbering committee's work were made at the convention. George M. Hunt read a progress report on timber preservation, B. C. Collier, former subcommittee chairman, read one on the use of "Concrete and Guniting for Underground Construction" and Newell G. Alford, the new chairman, read an important report on an investigation of "Concrete for Shaft Linings."

A final report on mine drainage embodying several previous progress reports was made during the convention as was a final report on mine tracks and signals by a subcommittee of the underground transportation committee.

During the standardization meetings an address was made by R. M. Hudson, chief of the division of simplified practice of the U. S. Department of Commerce, and a progress report by the standardization division for the metal mining branch of the congress prepared for the chairman, C. A. Mitke, was read by William A. Rowe, chief engineer, American Blower Co., Detroit, Mich.

The coal industry need no longer feel that it is going to be hounded under the anti-trust law, two speakers assured the convention at the Friday morning session. One was William E. Humphrey, of the Federal Trade Commission, who described the great change that has been made in the highly doubtful practices of that commission, and the other was Gilbert H. Montague, a New York lawyer, who urged the mining industry to obtain for itself at once the same exemption from the terms of the Sherman law that railroads,

telephone companies, farmers and labor unions have long enjoyed.

Mr. Humphrey was wholehearted in his condemnation of past practices of the Federal Trade Commission. But he said two great changes in method have been in effect since last March which make the commission assist business instead of harassing it. In past years the commission, he said, has sent out investigators to work on every complaint and their reports have been made public without even hearing the respondent. In 50 per cent of these cases, after months and even years have elapsed, during which the publicity may have ruined the business under investigation, the charge has fallen flat. Now the commission uses no such public methods.

The other important change is the use of the "stipulation" system. When an investigator's report makes a prima facie case there is a hearing before a board of review. The case may be dismissed as unjustified. But if the complaint of unfair business practice proves justified the commission is willing to accept a signed stipulation from the respondent in which he agrees never to repeat the offence. Often he has broken the law without knowing it, a condition that should cause no surprise in view of the differences of Sherman law interpretation made by various agencies even including the Supreme Court itself. Only in flagrant cases of willful violation does the commission carry the matter to court.

This plan has been assailed by "the pink fringe" of both republican and democratic parties and by out-and-out radicals, but by no others, Mr. Humphrey said. It is a successful and just plan and usually produces the desired result, often in cases where it would be impossible to gather sufficient evidence to win a prosecution suit. It is square to business and it saves at least \$500,000 a year to the government in court costs, he said. He declared the commission is now correcting an average of one case a day, whereas it formerly averaged only one a week. No longer, he said, will cases hang fire for years. They are handled expeditiously.

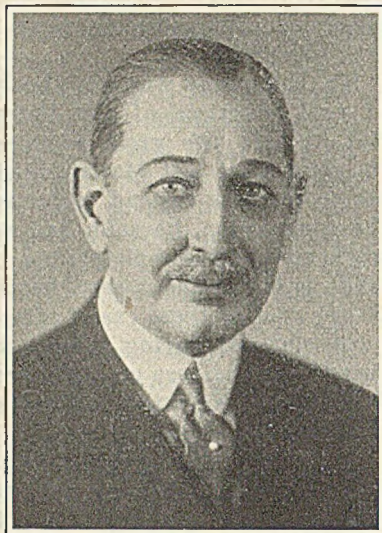
"The Federal Trade Commission now believes that business men in this country want to be honest," said Mr. Humphrey. "It no longer holds that business success and dishonesty are synonymous."



on the White House Lawn, Washington, D. C., Wednesday, Dec. 10



Mr. Montague, following Mr. Humphrey, declared the change in the commission's methods has done more to bring order to American business than any other one thing since the passage of the Sherman act in 1890. Further, he said, there never has been a time in the last 35 years when business got such sympathetic decisions from courts and commissions as it is getting now. There is no longer any reason why coal operators should fear to deal collectively with their labor and that trade associations need not fear to function.



Harry N. Taylor

President of the United States Distributing Corp., who declared at the American Mining Congress meeting that "there is no crisis created by the anthracite strike."

Mining is the greatest waster of all industries, he declared, largely because the units in it have not been able to function freely and legitimately under the various interpretations that have been put upon the anti-trust statutes. Now, however, sound consolidations of mining properties to reduce overhead and improve production are possible with impunity and trade associations can safely exchange information that will reduce the wastes of distribution.

Sidney J. Jennings, president of the American Smelting & Refining Co. of New York, after defining a "fair wage" as one that would permit a man to "feed, clothe and house himself and have enough leisure to recuperate his strength and increase his ability to earn" declared that experience has proved that "high wages coupled with high efficiency produces most profits" for both capital and labor.

Said he: "It is the manifest interest of society to see that no nationwide organization of workers arises dominated by arrogant and self seeking men, more intent on maintaining their power and its rewards than in serving labor and society as a whole. One of the most evident lessons of history is that human beings deteriorate in character and judgment when too much power is given them. Leaders of labor organizations are no exception to this rule, and society is finding that national organizations of all the workers in one industry irrespective of their trade, become tyrants.

"No absentee, autocratic labor leader will consider fairly the problems of the different conditions under which mining is carried out in various differing regions. He is too intent on making himself appear essential in the controversy to take into proper consideration the needs of the workers, and the rights of the public. A most striking illustration of this is the present coal strike. No one man can fairly represent the needs of the workers in both the bituminous and the anthracite coal mines. Inevitably he will use either one set of workers or the other as pawns in the struggle to keep himself in power.

"Why should a miner in Wyoming, who is perfectly contented with his wages and the conditions under

which he works, be dependent for his right to work upon the policy of a man living in Indiana, who decides that miners working in Pennsylvania should strike in order to show that he is a power in the land? More intimate contact with the problem of each region is needed so that proper and fair agreements can be arrived at, that will allow the coal mining industry to continue its work of supplying fuel to the nation at a cheaper rate than any other nation in the world is supplied and at the same time pay its employees a higher rates of wages than is received by any other miners in the world."

Winding up the last general session, the Congress passed resolutions favoring impartial arbitration, approving the recent transfer of the Bureau of Mines to the Department of Commerce, commending Secretary Hoover for choosing the type of men he has selected to administer the Bureau's work, and endorsing the national safety competition now being conducted by the Bureau. There were other resolutions of interest only to metal mining men.

The arbitration resolution follows:

WHEREAS, The President of the United States in his message to the Congress has specifically endorsed the settlement of industrial controversies by impartial arbitration, and

WHEREAS, In order to terminate the present intolerable situation in the anthracite region, the operators have offered to submit all matters in controversy, without reservation, to arbitration, therefore,

BE IT RESOLVED, That the American Mining Congress places itself on record in support of the President's suggestions and endorses the principle of settlement of industrial controversies by arbitration.

The following officers of the congress were elected Friday:

President, Col. Daniel B. Wentz, Stonega Coal & Coke Co., Philadelphia, Pa.

Vice-presidents, Robert E. Tally, United Verde Copper Co., Jerome, Ariz.; E. L. Doheny, Los Angeles, Calif., and W. H. Lindsey, Napier Iron Works, Nashville, Tenn.

Secretary, J. F. Callbreath, Washington, D. C.

New member of the board of directors, George B. Harrington, Chicago, Wilmington & Franklin Coal Co., Chicago, Ill.

The last session connected with the congress was the luncheon of the manufacturers' division Friday noon where preliminary plans were made for the coal convention and machinery show of the congress next May. Bids are in from two or three cities for the convention. A committee composed of J. C. Wilson, Ohio Brass Co., L. W. Shugg, General Electric Co., and E. C. Porter, convention manager of the congress, was appointed to canvas the situation and make a final decision within two or three weeks.

A coal mining program to be arranged by the coal operating men of the country so as to satisfy their needs and theirs alone will be worked out. Mr. Wilson, who is chairman of the manufacturers' division, Ralph Becker, Keystone Consolidated Publishing Co. and Mr. Porter will begin at once to create a program committee that will carry out the plan. They will travel the coal regions soon so as to find out just what mining men want to have covered in the technical sessions next May.

As a tribute to Secretary Callbreath, who has been in the service of the congress ever since it was created—has been its mainspring, in fact—the manufacturers' division expects to have an oil painting of the Secretary made and hung in congress headquarters in Washington.



# The Anthracite Operators' Case Today\*

By Samuel D. Warriner

Chairman, Anthracite Operators' Conference,  
Philadelphia, Pa.

THE STATEMENT of President Coolidge that "perennial conflicts in the coal industry approached to a national economic failure," challenges the best thought of the American Mining Congress. There is no doubt that the disease to which the President directs attention exists. Its cure, however, may be delayed by the application of too many nostrums.

A public letter given out in the last few days by a distinguished group of nationally known engineers and economists, states that "no agreement will insure continuity of production and distribution which fails to provide a continuing joint agency that will concern itself with the constructive consideration of the underlying economic and technical facts" of the industry and that "joint effort on the part of management and workers in improving methods of production and distribution can increase wages and lift and stabilize earnings at the same time that they lower the price to the consumer."

The position of the operators, as stated to the joint conference at Atlantic City was and has since been in hearty accord with this expression of principle. Nevertheless, to date there has been an utter failure of negotiation and much misunderstanding on the part of the public as to underlying causes of such failure.

The basis of anthracite labor relations, since 1902, has been the award of the Roosevelt Commission. It preserved peace in the industry for 20 years. It provided a system of industrial negotiation and co-operation far in advance of its time. It endorsed in principle the open shop, but at the same time afforded full opportunity to union leadership. That the union progressed under its operation is a matter of history. While the theory of group representation in matters of joint negotiation was encouraged, it afforded every facility for the individual to express his grievance and to have his case determined by the joint board of conciliation, which was created by the award of the commission. The compensation of employees, under the sliding scale of wages, was determined to a certain extent by the economics of the industry.

The breakdown of this system came with startling suddenness in 1922, when John L. Lewis announced before negotiations were even begun that regardless of past practice, a strike would be called on April 1 if by that time a new contract had not been signed.

The objection of the Roosevelt Commission to the

recognition of the United Mine Workers was that it was a bituminous organization. Before any recognition was granted by the operators, union leaders gave definite assurance that their anthracite policy would be autonomous.

Nevertheless, national union strategy influenced by bituminous policies has been substituted for the "men and management" plan of industrial government established by the Roosevelt Commission. This, together with the interjection of the strike as a weapon to be used first instead of last has produced industrial chaos. Since April, 1922, until the present time, a period of 44 months, practically 11 months or 25 per cent of the time has been spent in useless contention with appalling economic loss.

If you will study the history of the controversies of the last three years, you will agree with me that the basic issue has been the question of arbitration. The

operators have consistently urged it; the union has consistently opposed it. No one believes arbitration to be a "cure-all," but the operators believe that, given full opportunity for negotiation, mediation, and conciliation, there still must be an agreement to arbitrate if strikes are to be avoided, and continuous operation of the mines, with dependable supply of fuel for the public, is to be assured. The influence of an arbitration board in the background is a powerful incentive to successful negotiation.

## THREATENED REGULATION DETRIMENTAL

The spectre of government intervention, regulation and control, as well as the opportunities afforded for possible governmental operation or ownership, have often interfered with economic settlement of existing controversies.

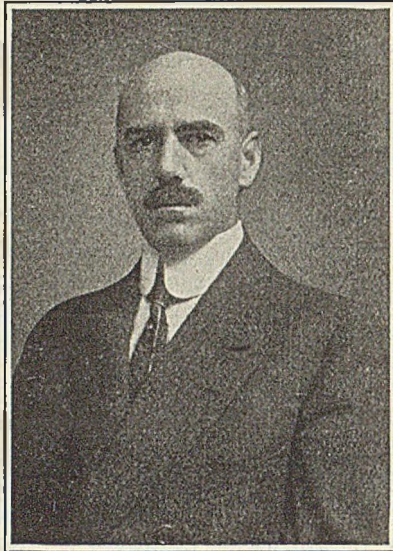
The present attempted state intervention ignores commercial factors as well as all legal restrictions imposed by federal statutes. It assumes that prices can be maintained by agreement, and, on the basis of this assumption, that present wages can be maintained indefinitely, and surplus profits, if any exist, turned over from time to time by a commission to the miners in increased wages. No more impracticable theory of commercial operation can be imagined even by the most nimble mind.

No program by which prices can be maintained, or costs of operation other than labor controlled, is suggested. The fact that anthracite mine workers are

\*Address to the American Mining Congress Convention, Hotel Willard, Washington, D. C., Dec. 10, 1925.



receiving 10 per cent more than the highest war wages, and are already being paid higher than employees in other basic industries, is ignored. No banker or investor would loan money to such an enterprise. The acceptance of such a proposition would spell calamity to the industry. Yet the very proposal of such a plan encourages unreasoning expectation and impedes judgment.



Samuel D. Warriner

There should never have been any attempt to impose the authority of government intervention upon an industry when the owners have consistently been willing to submit their case to impartial arbitration without reservation, and no judge, self-appointed or otherwise, should presume to render decision without at least hearing both sides of the case.

#### DIVIDING THE POT OF GOLD

From a practical standpoint the governor of Pennsylvania might as well have divided a pot of gold at the end of a rainbow, as to expect that his chimerical proposition would promote the interests of the industry and its workers and at the same time satisfy the reasonable and legitimate expectations of the anthracite consuming public.

At the opening of Congress it is pertinent to consider the possibilities of federal legislation. Unless it can be proven that anthracite is an essential and can

command at all times a monopoly price, there is no warrant that the treatment accorded it should differ from the treatment accorded other mining and industrial enterprises. Any control of price inevitably presumes that whatever price may be set can be obtained. Control of methods of operation and distribution must conform to such regulations as are imposed upon other products of industry.

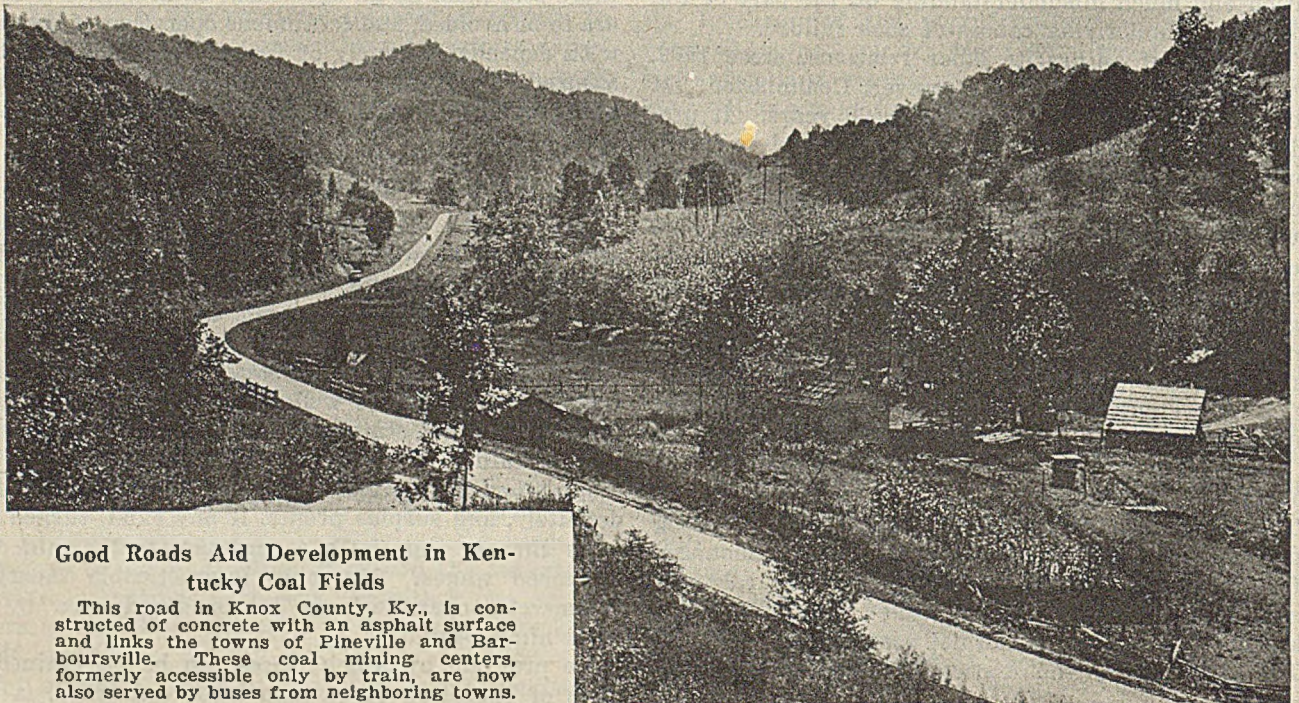
#### SHOULD SUPPORT FACT-FINDING

The President should be supported in his recommendation that through some government authority essential facts shall be currently compiled. This eliminates at least one subject of controversy.

There should also be agencies of mediation and conciliation to promote voluntary arbitration. This is a manifestly sensible treatment, tending to make the strike, which is the cause of our troubles, more remote. The leaders of the labor movement would do well to follow the advice of Mr. Green, the president of the American Federation of Labor, who points out that labor unions have passed the militant stage, and must enter the stage of business co-operation if they are to retain the place to which they are entitled in our scheme of American industry.

Periodic strikes and suspensions of operation, whether caused by owner or employee, cannot be tolerated in one of the most important of our national industries. The common sense of the American people should compel peaceful adjudication of disputes by the rules of reason and logic, rather than by a resort to industrial warfare.

As President Coolidge says in his message to Congress, "Those who ask the protection of civilization should be ready to use the methods of civilization." The anthracite operators believe that out of this chaos will come an agreement embodying the "men and management" idea of industrial co-operation, with assured methods of adjusting disputes, and providing satisfying service to the American public.



Good Roads Aid Development in Kentucky Coal Fields

This road in Knox County, Ky., is constructed of concrete with an asphalt surface and links the towns of Pineville and Barbourville. These coal mining centers, formerly accessible only by train, are now also served by buses from neighboring towns.



## Book Reviews

### How It Should Be Said

The public is just beginning to value niceties of speech. Nothing more clearly brings home that fact than learning that the Westinghouse Electric & Manufacturing Co. has a literary critic and that he has published a book, "Principles of Business Writing," and that the publisher is none other than the Westinghouse Technical Night School Press, East Pittsburgh, Pa. The name of the author-critic is T. H. Bailey Whipple.

In the part of his book devoted to "Words and Phrases Often Misunderstood" he clears up for the reader many a moot point. Of course, we don't always agree with him. Stylists very seldom do agree. Language is fluid and changing. How much modern change we shall refuse to accept and how much accept no one knows. Nevertheless it is possible to find amazingly helpful a book with which you do not always find yourself wholly in agreement, and if you take Mr. Whipple as guide you will go a long way toward bettering your style.

### GRATEFUL FOR SUGGESTIONS

We would not say, with Mr. Whipple, "has effected great advancement in the tone and character, etc." but rather "has bettered the tone and strengthened the character, etc." We would not refer to "a small amount of coal" but rather to "a small quantity" of that material. These, however, are details. We are grateful to Mr. Whipple for not a few happy suggestions, and have listed for our personal observance quite a few reforms that his apt advice has suggested. (Yes, he would approve that use of "apt.")

Slovenly English in letters, in reports, even in articles, often interferes with clarity. As one has said: "Words are like sunbeams, the more we condense them the deeper they burn." And we want our words to burn, do we not? We have a message to be delivered and we want it presented gracefully, courteously, correctly and not smothered in useless verbiage. To this end Mr. Whipple's book is dedicated. It contains 132 pp. measures 6 x 9½ in. and sells for \$2. It has a chapter by G. M.

Wood, of the U. S. Geological Survey, a stylist than whom there is perhaps none better.

### The Case of Bituminous Coal

With a series of lively texts from Gilbert and Sullivan operas and the "Bab Ballads," Walton H. Hamilton and Helen R. Wright, for the Institute of Economics, established in Washington, have produced a gloomy jeremiad that can be duplicated only by the choice of well-chosen parts of the Major and Minor Prophets.

To these investigators, and they appear to be well entitled to that name, for they have made a careful inquiry and seem to have their facts, if not all their deductions, straight, the coal industry appears to be getting more deeply involved every year. The promise of deflation made by the self-appointed physicians of the coal industry is not being kept, and the authors believe that just at present, despite depression in prices, inflation is rampant, every operator striving for increased production so as to lower overhead. To this tendency, the authors can see no end. The industry is sick, and its debility daily increases. The leucocytes by which its life blood should become purified are unable to overcome the germs that menace its healthy existence.

### THE "UNHAPPY COMPLEX"

The authors seem not to be unfavorable to the industry. In fact there are many operators who find themselves with the same unhappy complex as Hamilton and Wright. Like them they believe the skies will never clear. To a certain extent that is right. They never do and never can clear up entirely in matters mundane, but somehow the more cheerful of us at least can smile and go along with our work.

Pointing out that the demand for coal cannot be expanded except with the increase in population and general industry the authors say: "The hope for an increased demand for coal, if hope there can be, lies 'in the discovery of new uses for it.' But the only new use which a diligent search through trade periodicals re-

veals is 'to cool houses' in summer." That is no small use nor is it so greatly remote as this short reference would lead us to believe. Other uses that have been suggested are: larger domestic use by farmers who heat now only part of their houses, earlier and later operation of domestic fires, better and more general illumination and irrigation of farms by pumps in dry seasons. These are only indications of new uses. There will be many others that are not as yet knowable.

One should be a "bull" on the United States and industry without knowing just why. We are not troubling to name the statesman who in 1940 will meet the problems of that year and in some degree solve them, but we feel confident that he will be there. We are not naming all the new uses for coal there will be in 1940 or 1927 even, but we are quite well satisfied they are on their way, and *Coal Age* here and elsewhere has indicated some of them, only feebly perhaps.

### WILL OPEN OTHER INQUIRIES

The book is so cheerless that it leaves one helpless and dazed but we are confident, nevertheless, that it will be made the first of a long series of jeremiads on the other industries. Overhead, overdevelopment, increased technologic efficiency, lack of vision, uncertain accounting, inability to weigh operating factors are difficulties in them all. In every direction of industrial inquiry the book on coal problems is almost always the first of such books to be written. The others follow in time. The reason is not difficult to find: Coal's illnesses are distressing for coal's services are so great. Consequently coal gets the most careful investigation and gets it first. The others follow. It is found that they are ailing too, though formerly no one cared, because either their immediate service was not needed or their abstention from work inconvenienced only a few members of the family. The science of industrial pathology starts with coal. When the subject is studied in that industry inquiries in others are soon added, the study being made in them not so much of dire necessity as because of a lesser advantage or out of mere curiosity.

The book contains 307 pages measuring 4¼ x 7¾ in. The publisher is The Macmillan Co. of New York City, and the price is \$2.50.



# Union Pacific Coal Co.'s Code of Standards—I

**S**TANDARDIZATION of method and equipment is carried to a high point by the Union Pacific Coal Co. at its operations in Wyoming. A new code of standards has been put into effect calculated to gain for the company all the benefits that are to be had from uniformity.

On these pages *Coal Age* begins the publication of the Union Pacific code and will, in future issues, publish the balance of it in a form that will permit of easy filing. This is done with the co-operation of President Eugene McAuliffe of the company, who practices helpfulness to the industry at every opportunity.

The standards as laid down in this code were made, of course, to cover the Union Pacific's Wyoming mines and would require modifications for use anywhere else. It was written after an exhaustive study had been made by the company's mining engi-

foreman should not be called upon to acquire.

The mine electrician should be impressed with the necessity of observing improper conditions and reporting them to the proper authorities with suggestions covering their remedy.

The following rules and regulations are to be considered as standards for the use of electricity both underground and on the surface at the mines of The

be forwarded to the office of the chief electrician.

(NOTE: This inspection shall cover the points outlined under heading—"Instructions to Persons Inspecting Electrical Equipment.")

3. In all future installations within the mines, the voltage shall not exceed 2,200. This potential may be brought in and applied to transformers, motor-generator sets, hoists, pumps or other

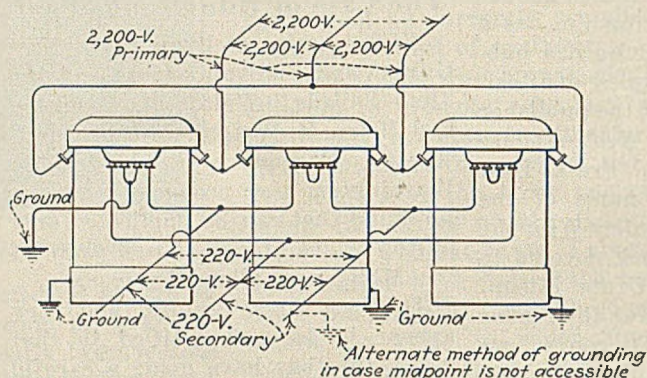


FIG. 2  
Permanent  
Grounds

Transformer cases should be grounded in such a manner that the earth contact is not disturbed during ordinary inspection and repair work. If the midpoint of a transformer secondary winding is not accessible, one secondary line should be grounded.

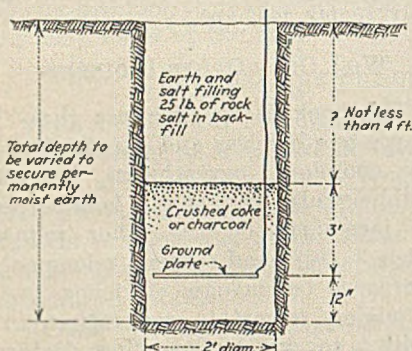


Fig. 1—Good Grounds Are Made

This is the method used to obtain low-resistant ground connections for lightning arresters and electric machinery. Unless special means are used good grounds cannot be obtained in dry localities. Electric protective equipment is valueless without an efficient ground contact.

neer after conferring widely with the operating and engineering staffs of many coal producing companies and after many mine inspections.

## Code of Standards

The mine foreman, who is held responsible under the law for the safety and general condition, of the mine and by the management for its production and costs, is recognized as the man in authority in the mine.

Mine electricians are expected to follow the orders of the mine foreman in performing routine work, repairs and the installation of such extensions as may be required in the regular operation of the mine. They will also receive orders from the local chief electrician as to general methods and special work when necessary.

The extensive use of electricity in our mines raises many problems that require a special training that a mine

Union Pacific Coal Co. They will be enforced, and are hereby understood to be in force and in effect as of this date.

## General Considerations

1. At each mine there shall be posted a plan map showing the mine wiring, cables, conductors and the location of permanently installed electrical machinery. The legend thereon will be as follows: Yellow, high voltage (2,200 volts); red, low voltage alternating current; brown, low voltage direct current, mining machines, pumps, hoists, locomotives, fans, etc., will be designated by note.

These plans shall be revised by the local chief electrician at intervals not exceeding six months, and oftener when necessary.

2. A rigid, systematic and careful inspection of all electrical equipment, cables and supply lines shall be made monthly, a report of this inspection to

apparatus upon the recommendation of the vice-president and general manager, and shall be installed under the direction of the chief electrical engineer. Mining machines, locomotives or small-capacity motors (less than 25 hp.) shall not have a voltage in excess of 275.

The exceptions to this are: The No. 40 Room hoist at No. 1 Cumberland; the Old No. 4 Panel hoist, in C Mine, Superior; the 100-hp. motor at No. 7 Mine, Winton; the 75-hp. motor No. 2 Mine, Rock Springs; the 50-hp. No. 4 Panel machine at No. 3 Mine, Winton; the 35-hp. motor, formerly used at No. 9 Panel, in C Mine, Superior; the 30-hp., No. 6 Panel hoist at C Mine, Superior; the 52-hp., No. 4 Panel machine in C Mine, Superior; and the mining machines and locomotives at mines Nos. 2 and 7, Rock Springs. These latter are to be subsequently changed to the lower voltage.

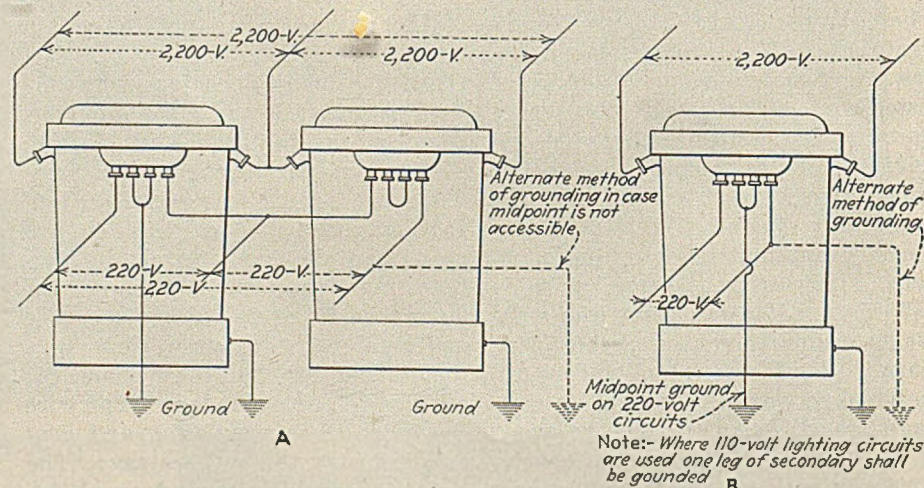


Fig. 3—Protecting an Open-Delta and Single-Phase Connection

A—The secondary circuit may be grounded either at the midpoint of a transformer winding or by making an earth connection to one of the line wires. In all instances the casings of the transformers should always be grounded. B—This arrangement is usually for lighting transformers but in all instances the tank should be grounded and also the midpoint of the secondary winding or a line wire.



4. All knife switches shall be of the safety inclosed type.

#### Grounding

1. The frames, casings or inclosures of all stationary electrical apparatus such as motors, motor-generator sets, rotary converters, transformers, starting and control apparatus, oil switches, cable sheaths, or other equipment that accidentally may become charged with electric current shall be grounded. (By grounding is meant making a permanent connection to the general mass of the earth in such a manner as will insure at all times an immediate discharge of electrical energy to it without danger.)

2. All ground wires to be copper, not smaller than No. 4 B. & S. gage.

3. Ground wire connections to the apparatus shall be made by means of terminals soldered to the ground wire and securely bolted to the apparatus at

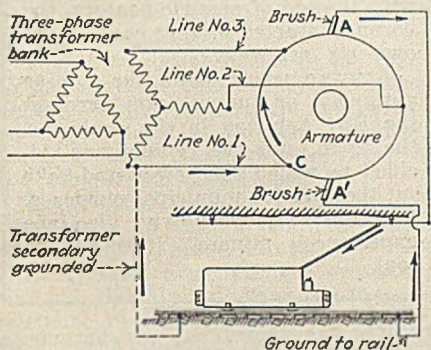


Fig. 4—No Grounds Used on Transformers for Rotaries

There is a physical circuit connection between the alternating-current energy and the direct-current supply in a rotary converter, consequently, since the direct-current system is normally grounded, another earth connection made to the secondary wires of the transformers creates a short current around a part of the rotary winding. For instance, if line No. 1 is grounded, current from A goes through the motor and returns to the rotary via two paths, one to A' and the other to the point C through line No. 1. Thus the section of the winding between C and A' is short circuited.

such a point that its removal for inspection or repair will be unnecessary.

4. All ground connections shall be made to pipe lines, track or ground plates that are in contact with permanently moist earth; the connections to be mechanically secured and soldered. (See Fig. 1.)

5. All ground connections are to be approved by the local chief electrician.

6. Ground wires should be straight, and as short as possible and where necessarily run in pipe the ground wire shall be electrically bonded thereto.

7. Solid wire shall be used for grounds, except that flexible wire may be employed for connection to hinged or moving parts where it is necessary to make such connections.

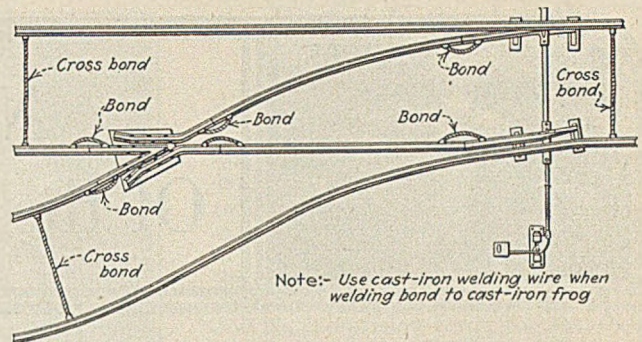
8. Ground wires shall be installed in such a way that they can be inspected for continuity and be protected from mechanical injury.

9. Transformer cases, oil switches and supporting frames shall be effectively grounded.

10. The secondaries of one transformer of each three-phase bank shall

FIG. 5  
Bonding Around Switches

A well bonded rail system may easily be spoiled by a poor arrangement of bonds at switches and turnouts. The aim should be to obtain a two-rail path for current both around the switch and to the tracks leading therefrom.



be grounded at the point which brings about the lowest voltage from ground to live conductor. (See Figs. 2 and 3.)

11. Single-phase lighting transformers shall have the case and one side of the secondary grounded. (See Fig. 3.)

12. The secondaries of transformers supplying rotary converters shall not be grounded. (See Fig. 4.)

#### Bonding

1. It is mandatory that all bonds found or known to be defective or broken be replaced on the same shift as that during which they are discovered or before the beginning of the succeeding shift.

2. All tracks used as a conductor for electric current shall be bonded at every joint and cross bonded at intervals not exceeding 300 ft.

3. Bonds at switches, frogs and turnouts shall be applied as shown in Fig. 5.

4. All bonds are to be of the arc-weld type welded to the base of the rail on the inside of the track. They must be of sufficient length to span the splice bars or fish plates. (Note: Bonds to be 4 in. longer than splice bars or fish plates.)

5. Bonds are to be welded to the rail in such a way as to give proper conductivity and permit of complete salvage. (See Fig. 6.)

6. All track bonding shall be given a thorough physical inspection every three months, and a report of findings forwarded to the chief electrician.

#### Trolley Wires

1. Trolley wires shall be No. 4/0 B. & S. gage grooved and shall be supported on O. B. Cat. No. 11,309 type

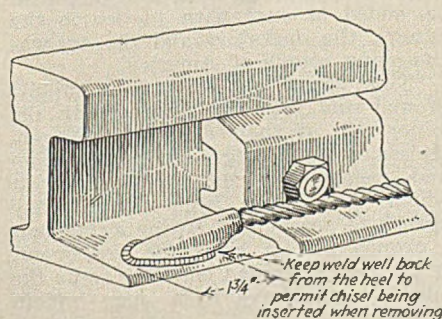


Fig. 6—Where Welds Are Best

The primary thought in applying a bond should be to obtain high conductivity at the joint. However, it should be done in such a manner that the bond may be completely salvaged. So that they will be better protected and yet be easily removed when it is necessary to do so bonds should be welded to the inside section of the base of the rail.

hangers, and O. B. Cat. No. 13,508 clamps or their equivalents.

2. The height of the trolley wire above the rail shall be made as uniform as practicable.

3. Trolley wires shall be placed so as to give the maximum practical clearance and shall be kept in as straight a line as possible. They shall have a maximum height of not to exceed 6 1/2

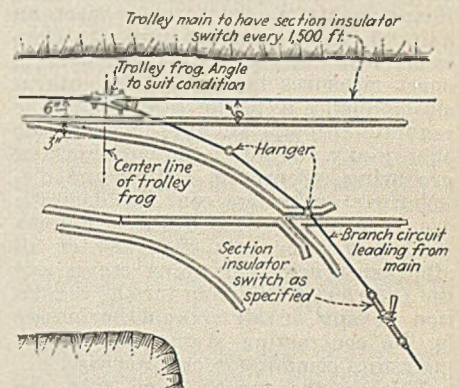


Fig. 7—Many Sectionalizing Switches Prevent Hazards

Underground trolley circuits should be laid out so that a section insulator switch is located every 1,500 ft. in the line. Branch circuits should be equipped with a section insulator switch at the point where a tap is taken from a main trolley wire. Suitable signs indicating the location of switches should be placed along the line.

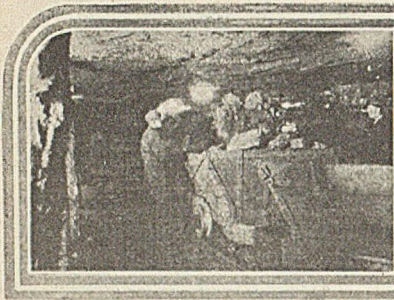
ft. and a minimum of not less than 4 ft.

4. On straight runs the hangers shall be placed not more than 20 ft. apart where the height of the roof above the track is 5 ft. or less and not more than 30 ft. apart where the roof is more than 5 ft. above the track. On curves the hangers shall be placed sufficiently close together that the trolley wire at any one hanger may be entirely disconnected without exposing the locomotive runner to danger of contact.

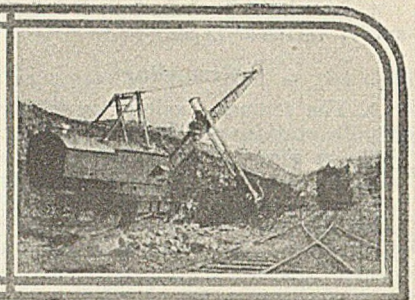
5. Underground trolley circuits shall be sectionalized every 1,500 ft. by placing a switch in the line (similar to O. B. Cat. No. 11,600) by which the line can be entirely disconnected from the source of supply. All branch trolley lines shall be provided with a frog at the point where they leave the main and also with a switch (O. B. Cat. No. 11,600 or its equivalent) installed at or near the frog by which the branch can be disconnected from the main. (See Fig. 7.)

6. Appropriate signs designating location of disconnecting switches shall be placed along the line.





## News Of the Industry



### Pinchot Calls Special Session of Legislature to Regulate Anthracite; Governor Bitterly Attacks Operators

Governor Pinchot, still smarting under the operators' rejection of his "peace" program to end the anthracite strike, has again taken the offensive with a call for a special session of the Pennsylvania Legislature to meet on Jan. 13, 1926. At that time the Governor will ask the state lawmakers to enact measures to declare the anthracite industry a public utility and "to regulate through an appropriate state agency any and all of the businesses of producing, preparing, selling and distributing anthracite coal for domestic use." In addition, he will seek authorization of "compacts with any or all other anthracite-consuming states and the District of Columbia for the regulation of any or all of said businesses in the contracting states through an interstate commission or otherwise."

This is the second time that the Governor has urged state compacts under the tenth clause of the Constitution of the United States. In 1923, following widespread criticism of the manner in which he settled the strike in that year, he called a conference of his fellow governors and suggested state compacts as one solution of their complaints against high prices. The first conference was a fiasco; a second was a still greater failure from an attendance standpoint. At those meetings the state-compact idea was not only attacked but ridiculed. Governor Silzer of New Jersey declared it would take 31 years to get 31 states lined up. Governor Preus of Minnesota was a strong advocate of regulation through the device of declaring the industry a public utility.

#### Scheme Failed Two Years Ago

The upshot of these conferences was that the Pinchot ideas in so far as they touched upon federal regulation of the anthracite industry were finally embodied in a bill which the Pennsylvania Senators at Washington declined to sponsor. Senator Borah then took the Pinchot legislative orphan under his care, but the bill was never pressed and there were no loud wails either in Washington or in Harrisburg when the measure died a peaceful death with the expiration of Congress. During the Harrisburg governors' conferences in 1923, Pinchot refused to entertain a proposal to issue a call for a special session, intimating that no favorable action by the Legislature could be ex-

pected. Attention was called at that time to the fact that a bill to declare anthracite subject to regulation had been introduced at Harrisburg by Representative Burns of Philadelphia and had made no progress in the regular session.

In announcing the call for the special session, which docketed giant power and a number of other subjects for consideration as well as coal, Governor Pinchot said:

"The present suspension in the anthracite region is a matter of the largest and most pressing importance not only to Pennsylvania but to all of the 40,000,000 anthracite-using people of America. It amounts to a dangerous crisis which must be met with promptness and courage."

#### Cites Courtesy of Miners

"In an effort to settle the strike, as Governor of Pennsylvania I invited the negotiating committees of the anthracite miners and operators to meet me in Harrisburg on Nov. 18. The miners courteously honored my request by the attendance not only of their negotiating committee but of the entire membership of the scale committees of all three anthracite districts. The operators refused to attend and were not represented."

"At that meeting I submitted, as I said, the rough outline on an agreement upon which, in substance, I believe the present suspension of work in the anthracite mines could be, and ought to be, ended at once with justice to the miners, the operators and the anthracite-using people of America."

"This rough outline was a middle ground and was far from giving the miners all of their demands. Nevertheless, with a degree of moderation and regard for the public interest which does them high honor, they agreed to accept the outline agreement I proposed as a basis for settlement. If the operators had done the same the mines would have been open within a week."

"The operators, however, flatly refused to consider my rough outline as a basis for settlement. They refused to consider it even as a basis for conference and negotiation. From first to last they have refused to yield one jot or tittle of their original position. The anthracite coal strike, which was at first a strike of the miners against the op-

### Widen Coal-Laden Sewer To Obtain Fuel

Municipal buildings, including the fire houses and City Hall, of Shamokin Borough, Pa., in the heart of the lower anthracite field, having been without coal, making it necessary for clerks to work with the aid of electric heaters, the borough started mining coal for its own use last week.

A large sewer, built like a mine gangway, or tunnel, cuts through the Red Ash bed in the center of the town, and the Councilmen decided to widen the sewer and take out the coal for municipal purposes. Borough employees who also are experienced miners extracted the coal.

erators, has therefore now become a strike of the operators against the public.

"The situation thus created amounts to an attack upon millions of anthracite users in Pennsylvania and other states, who are thus deprived of their customary fuel. The whole future of the anthracite industry is threatened by popular resentment and the use of substitutes. The prosperity of the anthracite region, now and hereafter, hangs in the balance. The public interests are gravely injured already and threatened with still more serious damage. Negotiations are at a standstill. The public must either suffer in silence or it must take measures to protect itself."

#### May Regulate as Public Utility

"The anthracite industry is a monopoly which has created such a relationship to the public that the stoppage of anthracite production is materially dangerous to the life and health of the people. The Attorney General has advised me that under the clear intent of a recent decision of the Supreme Court of the United States the anthracite industry, being a monopoly, may be declared to be affected with a public interest and therefore subject to regulation as a public utility."

"Action by the Legislature declaring the anthracite monopoly to be a public utility will supply some degree of public control where none exists today; will furnish information never before revealed, and will exert the most powerful influence the public can apply toward the settlement of the strike. What is equally important, it will be the most effective step that can be taken toward securing uninterrupted prosperity for the inhabitants of the anthracite region



## Jail and Fine Pickets In W. Va. Strike Zone; Non-Union Output Gains

Monongah, the last stronghold of any consequence of the United Mine Workers in the heart of the Fairmont field, in northern West Virginia, continues to be the storm center in the present labor struggle. On Dec. 10 Judge Winfield Scott Meredith, in the Marion Circuit Court, passed sentence on 50 former pickets at the Monongah opening of the Watson mine of the Consolidation Coal Co., after deferring the matter several months. Patrick Buckley, president of Monongah local No. 1,643, who is a brother of Mayor Thomas V. Buckley of Fairmont, was fined \$50 and sentenced to jail for 10 days. Ed Vingle, the leader of the Monongah miners' band, was fined \$35 and given five days in jail. Twelve pickets were each fined \$25; 24 pickets drew a \$10 fine and 12 women pickets were each fined \$1.

The miners gave notice of an appeal to the Supreme Court of West Virginia on the Buckley and Vingle charges and each gave bond in the sum of \$1,000, pending Judge Meredith's decision. All the others paid their fines.

The Supreme Court of Appeals in Charleston on Dec. 8 heard argument on the writ of error granted to Van A. Bittner, chief international representative of the United Mine Workers in northern West Virginia. The court will pass on the matter at the January term, but it is possible that the case will not be reached until March 2. Bittner was sentenced to serve six months in the Monongalia County jail in Morgantown and was fined \$100 on a charge of contempt of court by Judge I. Grant Lazelle in Monongalia County several months ago. Bittner then obtained a writ of error. The alleged contempt was made in a speech which Bittner delivered in Fairmont.

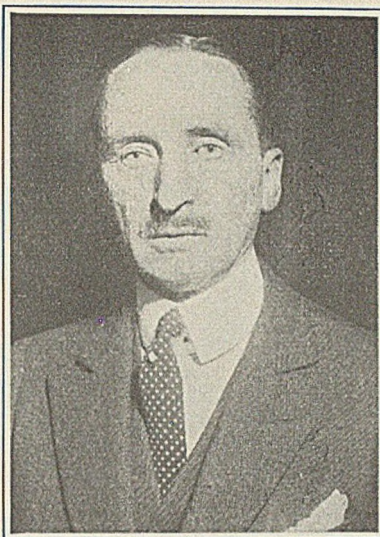
The miners' office in Fairmont was busy last week distributing clothing to the striking miners and their families. Various trade unions all over the country are sending cast-off clothing and the international organization is said to have spent \$12,000 recently for new clothing that was distributed. The miners continue to hold group meetings in the region.

Recently the Marion County Court

and an uninterrupted supply of anthracite for those who need it."

Formal statements on the Governor's latest move had been withheld by spokesmen for the miners and the operators up to the time this issue of *Coal Age* went to press. Announcement was made, however, that Major Inglis had called a meeting of his associates to consider the situation. The Governor followed up his proclamation with a summons to the mayors and burgesses of the cities and towns in the anthracite region to confer with him at Harrisburg on Dec. 16.

A further gesture toward legislative action in the situation was made a few days ago when Democratic Congressmen from New York went on record as favoring the enactment of a resolution



*Keystone View Co.*

Col. John J. Byrne

Appointed chairman of the State Fuel Commission last week by Gov. Al Smith of New York. Colonel Byrne has been prominently identified with state military affairs for many years and commands the 24th Artillery Regiment of the National Guard. He succeeds Major General Charles W. Berry, who was elected Comptroller of New York City in the November election.

met and dismissed a number of deputy sheriffs, believing that the disturbances in the mining towns were growing less numerous daily.

Non-union coal production continues to mount daily. A new daily non-union peak was attained Dec. 9, when 2,049 carloads was produced. In the first four days of last week the mines at work on a non-union basis produced 7,930 carloads of coal compared to 7,217 cars in the corresponding period of the previous week. Union mines loaded 1,136 cars of coal in the same period compared to 1,173 cars in the first four days of the preceding week.

On an average there were 226 non-union mines at work daily in the region during the first four days of last week. In the same period 14 mines worked on a union basis. Not a union mine worked on the Monongah Division, B. & O., for seven workdays, until Dec. 10, when a union mine resumed operation. The backbone of the union is on Scotts Run, where 13 mines operated daily.

to have the President appoint another commission to investigate and report not later than Feb. 1, 1926. Governor Silzer of New Jersey, transmitting a petition from the Board of Commissioners of Jersey City, wrote Washington that he hoped federal action to end the tie-up would be taken. The business men of the anthracite region, after an abortive meeting with Governor Pinchot on Dec. 8, appealed directly to the operators and miners for a resumption of negotiations, but without evidence of success.

Late reports from the mining districts indicate that the pinch of the suspension is being felt by the strikers. Many miners are on the ragged edge financially and some cases of actual privation and suffering have developed.

## Hint of General Strike In Southwest

Likelihood of a strike throughout the Southwestern coal field was hinted in an announcement, Dec. 8, from headquarters of District 14, United Mine Workers (Kansas), following the return of J. V. Fitzgibbons, joint board member, from a conference with John L. Lewis, international president, in Springfield, Ill. At the meeting were representatives of districts 13, 14, 21 and 25, comprising Iowa, Kansas, Oklahoma, Arkansas and Missouri, the same districts that were represented in Kansas City in two or three secret meetings preliminary to the one in Springfield.

"Violation and abrogation by the coal operators of the joint agreement in the Southwest was the subject matter of the conference," the district 14 statement said. "A policy of procedure was agreed upon and a committee from the international union will visit the Southwest at once to decide whether violations of contract by operators, particularly in District 21 (Oklahoma), will justify a cessation of work by all union men in the four districts represented at the conference."

James Sherwood, state mine inspector, of Kansas, announced recently that the number of mines now operating in the state exceeds by more than 100 the number open at this time last year. All are working full time.

## Advisory Committee Approves Mine Bureau Plans

The recommendations of its subcommittees in regard to the reorganization of the Bureau of Mines were approved by the full Advisory Committee which met in Washington Dec. 12. These recommendations embody the plan for the creation of an economic branch, for the transfer of the coal and minerals divisions from the Bureau of Foreign and Domestic Commerce and certain mineral statistics from the Bureau of the Census.

Some objection has arisen to the actual rescue operations of the Bureau of Mines crews. The committee has no thought of recommending anything that would pave the way for the building up of a great mine-rescue activity. The desire is to concentrate safety work on matters of instruction and demonstration, but the committee does not see how it can restrict rescue operations when the Bureau's cars are near enough to a disaster to render aid when it is requested by the state authorities and the mine operators. Actual participation in rescue work, however, will continue to be an incident to the operation of rescue cars.

All of the recommendations which have been approved thus far are to be drafted in final form at once. The next meeting of the Advisory Committee will be held in Washington the last week in January. On that occasion the committee will meet with Director Turner, who by that time will have had an opportunity to familiarize himself with the application of the changes which have been suggested. Mr. Turner expects to begin his active duties immediately after the first of the year.



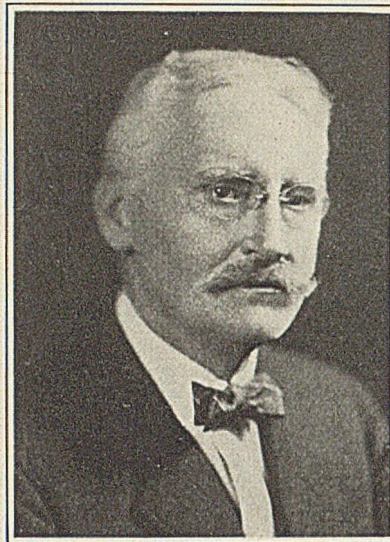
## Smokeless Operators Told Of Increasing Esteem for Non-Union Coal Producer

Never before have the non-union coal operators of the country stood so high in the public esteem. This point was expressed by J. A. Emery, chief counsel for the National Association of Manufacturers, during remarks at a luncheon of the Smokeless Coal Operators' Association of West Virginia held in Washington Dec. 10. The public is beginning to realize that it has much to be thankful for because of its great independent source of fuel supply, he said.

Mr. Emery praised the effort being made by the West Virginia operators to co-operate in a study of the "problems, the responsibilities, the rights, and the great duties" of their industry. The operators are co-operating, he said, in an effort to improve the service that they are rendering the public. While it is possible to obtain co-operation in such things, he expressed the opinion that it would be as difficult to get men accustomed to matching their judgment against that of competitors to become a part of a monopoly as it would be to get a chorus made up of prima donnas.

Mr. Emery condemned the tendency of some individual producers to be dissatisfied with association work if they do not receive \$2 worth of service from the association for each dollar which they expend in dues. Much of the benefit of association work, he asserted, must be general, just as the sanitation of a city preserves the general health and is highly commendable, despite the fact that an individual who may have an attack of gallstones must call in a physician. The public is beginning to learn, he stated, that business men can co-operate and still be competitors.

Co-operation, Mr. Emery said, must be judged by its objectives. If it is used to the disadvantage of the public it is not only illegal but it is immoral. He compared such co-operation as that of the smokeless operators with that of the United Mine Workers. In the latter instance, he pointed out, the avowed purpose is the building up of a monopoly to fix wages regardless of its effect on the public. Were industry to attempt any such thing, he said, there would be an outburst on the first page



Col. W. D. Ord

Re-elected President by Smokeless Operators

of every yellow journal in America.

The organized effort of national organizations to combat government interference with private industry and to limit the competition which the government may maintain with taxpayers was cited by Mr. Emery as indicative of the disapproval being aroused against the assumption of economic functions by the government, in addition to its proper political functions. He said there is little to fear from the soap-box socialist, for whom the public has little time, but the socialist is not so easily recognized in the habiliments of a U. S. Senator, he pointed out.

Colonel W. D. Ord was chosen to serve a second term as president of the association. E. J. McVann was re-elected secretary. Major L. Rodman Page, Jr., was selected as first vice-president; Major W. P. Tams, Jr., second vice-president, and G. H. Caperton, treasurer. On the Board of Governors the Winding Gulf Association will be represented by A. J. King and C. Hooper Mead; the Pocahontas Association by Major L. Rodman Page, Jr., and T. F. Farrell; the Tug River Association by J. T. Wilson and J. L. Steinbugler; the New River Association by G. H. Caperton and D. B. Wentz; the Greenbrier Association by J. B. Laing.

## Cost of Locomotive Fuel Advances Slightly

There was little change in the quantity and average cost per ton of coal used by Class 1 railroads of the United States in locomotives in transportation train service during September as compared with August, according to figures compiled by the Bureau of Coal Economics of the National Coal Association. Figures prepared by the bureau show the following averages: Eastern district, \$2.67; Southern district, \$2.19; Western district, \$3; United States, \$2.67.

Variation from August totals was slight; there was a decrease of 3c. per ton in the average for the Eastern district, an increase of 3c. in the Southern district, an increase of 2c. in the Western district and an increase of 1c. for the entire country. Compared with September a year ago the figures show a decrease of 31c. for the Eastern district; 17c. for the Southern district; 16c. for the Western district and 24c. for the United States.

The total cost of coal and fuel oil for the first nine months of this year was \$241,401,019, as against \$265,771,476 for the first nine months of last year. This saving of \$24,370,457 resulted partly from a decrease in the price of coal and partly from economies effected by the railroad management.

## John A. Bell Convicted of Embezzlement of \$600,000

John A. Bell, well-known Pittsburgh coal operator, was found guilty Dec. 8 of embezzling more than \$600,000 from the Carnegie Trust Co. of Carnegie. The maximum sentence under the twelve counts in the indictment is sixty years' imprisonment and \$60,000 fine.

Bell also was president of the First National Bank of Carnegie and the Burgettstown National Bank of Burgettstown. Both institutions closed their doors following the Carnegie Trust Co. crash. The Carnegie Coal Co., controlled by Bell, is second only in size to the Pittsburgh Coal Co. in western Pennsylvania. He also controlled other large mining operations. At one time Bell's fortune was estimated at \$25,000,000 to \$30,000,000.

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

(In Net Tons)

Ports	Railroads	Cargo	1925 Fuel	Total	Cargo	1924 Fuel	Total	Cargo	1923 Fuel	Total
Toledo.....	Hocking Valley.....	8,003,863	236,092	8,239,955	6,531,303	194,032	6,725,335	5,003,169	150,612	5,153,781
	Big Four.....	1,537,136	9,398	1,546,534	57,298	138	57,436			
	N. Y. C.-Ohio Central Lines.....	996,891	73,774	1,070,665	135,399	5,090	140,489	1,179,147	36,815	1,215,962
Sandusky.....	Baltimore & Ohio.....	3,147,598	95,607	3,243,205	2,154,306	66,808	2,221,114	2,861,500	83,889	2,945,389
	Pennsylvania.....	6,073,533	182,247	6,255,780	4,152,278	125,120	4,277,398	3,005,405	95,418	3,100,823
Huron.....	Wheeling & Lake Erie.....	703,627	36,597	740,224	790,494	36,264	826,758	1,471,905	58,169	1,530,074
Lorain.....	Baltimore & Ohio.....	*1,569,264	155,526	1,724,790	2,218,245	158,610	2,376,855	3,643,163	194,893	3,838,056
Cleveland.....	Pennsylvania.....	387,474	170,764	558,238	1,412,762	175,782	1,588,544	1,850,573	198,975	2,049,548
	Erie.....	18,138	1,252	19,390	327,720	11,336	339,056	739,025	31,920	770,945
Fairport.....	Baltimore & Ohio.....	938,678	112,718	1,051,396	550,702	84,394	635,096	880,389	80,118	960,507
Ashtabula.....	New York Central.....	327,777	81,526	409,303	868,915	112,296	981,211	3,322,902	253,537	3,576,439
	Pennsylvania.....	773,291	86,234	859,525	1,183,630	78,463	1,262,093	2,083,379	91,037	2,174,416
Conneaut.....	Bessemer & Lake Erie.....	1,101,250	212,740	1,313,990	1,502,672	196,727	1,699,399	2,781,553	240,553	3,022,106
Erie.....	Pennsylvania.....	278,413	58,637	337,050	684,669	85,802	770,471	717,240	93,489	810,729
Total.....		25,856,933	1,513,112	27,370,045	22,570,393	1,330,862	23,901,255	29,539,350	1,609,425	31,148,775
Storage loading.....		†33,017	1,048	34,065	†182,060	4,940	187,000			

\* Includes 42,005 tons cargo and 2,798 tons fuel dumped at Huron on account of fire at Lorain, June 12, 1925; also includes 3,631 tons fuel dumped over ore docks at Lorain.

† 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.

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



# Suppression of Coolidge Reply To Lewis Threat Piques Public; Executive Intervention Distant

By Paul Wooton  
Washington Correspondent of *Coal Age*

Interest in the President's reply to John L. Lewis has been fanned into a flame by the unexpected withholding of the letter from the public. The general assumption is that Mr. Coolidge took advantage of the opportunity to point out with entire frankness what he thinks of the threat to call a strike in the union fields. Many express regret that the spanking was not done publicly instead of in a dark closet. As this is written the general expectation is that the text of the letter never will be made public.

The President's message to Congress, however, gives more definite form to the administration's coal policy. While the President in general only repeats the recommendations contained in the first Coolidge message, it is possible in the light of events of the past two years to get a clearer picture of his intentions. What was then vague now is understood.

Observers in Washington see in the message a definite commitment to a policy of non-intervention until sufficient authority is given to allow the executive to take steps that would have a chance to be successful. The President does not favor a policy of complete aloofness as it is apparent that he would approve legislation which would provide for the following:

(1) Fact finding and publicity, presumably through the Bureau of Mines, as the Department of Commerce is mentioned specifically.

(2) Encouragement of regional consolidations and the authorization of co-operative marketing associations.

(3) Authorization for the secretaries of Commerce and of Labor to undertake mediation proceedings.

(4) Authorization to direct the distribution of coal during emergencies. This apparently means nothing more drastic than the issuance of priorities and the control of rail distribution along the lines of the Fuel Distribution act of 1923.

## What Does the President Mean?

The least definite of the foregoing is the suggestion concerning mediation. Those interested in the President's views, both inside and outside of Congress, would like to see him elaborate this point. Does Mr. Coolidge mean the tendering of good offices through some Cabinet officer? If so, that would not differ greatly from the present conciliation work of the Department of Labor. Does he mean compulsory investigation and report to the President in the event of a big strike without compulsory acceptance of the findings as recommended by the Coal Commission? Would he set up machinery for voluntary arbitration?

Though the President's program clearly embraces the points enum-

erated, it is obvious that he is not pressing his ideas on Congress. His attitude rather is that Barkis is willin'. The center of interest, therefore, has shifted to Congress, where the action likely to be taken will depend largely on the anthracite strike. If the strike is settled without great public inconvenience there would be little chance for legislation. This would happen not so much because Congress is averse to dealing with the matter but because the other business crowding for attention then would appear to be relatively more important.

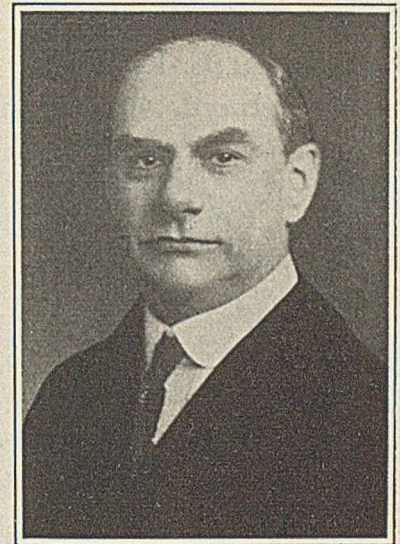
## Much Depends Upon the Weather

An unusual number of coal bills have been introduced or are under preparation. If the strike should drag on with little prospect of settlement or if Mr. Lewis should create the impression that a bituminous strike is imminent, the prospects would be favorable for obtaining some sort of legislation. The chances would be increased greatly were there to be a period of severe weather. Thus far this autumn the weather man has been with the operators. Were the weather to turn colder it might reveal a condition of unpreparedness which thus far the mild weather has covered up.

## Utilities Consume More Coal And Oil in October

Public utility power plants in the United States consumed 3,699,207 net tons of coal in October, according to a report by the U. S. Geological Survey. This compares with 3,471,638 tons in September, as shown by revised figures. Fuel oil consumption by utilities in October totaled 837,741 barrels, compared with 807,406 barrels in September as shown by revised figures.

The average daily production of electricity by public-utility power plants



William L. Abbott

Newly elected president of the American Society of Mechanical Engineers, who assumed office Dec. 4. He is well known as the foe of coal waste, having been chairman of the committee of the American Engineering Council which conducted a nationwide study of coal storage in co-operation with the Department of Commerce and the U. S. Coal Commission.

in October was 191,300,000 kw.-hr. More electricity was generated by electric public-utility power plants in the United States in October than ever before. The daily output exceeded that of September by nearly 5 per cent and that of January, whose daily rate was next to September, by 6½ per cent. The output in October of this year exceeded that of October, 1924, by more than 14 per cent. The total output for the 4-month period from July to October of this year was 15 per cent greater than for the same period in 1924.

## Fraud Warning

Warning has been broadcast by the Post Office Department of a fraudulent coal-selling scheme perpetrated by J. W. McCarthy, who at various times has operated under the name John Webster McCarthy, the Kanawha-Hazard Coal Co. and the Wood Coal Co.

By means of false financial statements and other false representations he induced coal operators to ship on his orders without paying the operators, the coal being shipped and billed with the name of his company as the shipper, and the purchaser remitting direct to him or his company. He also secured advance payments for anthracite by furnishing the prospective purchaser with false bills of lading in some instances, and in others by merely representing that the coal would be or had been shipped. He succeeded in swindling several coal companies in West Virginia, Virginia, Pennsylvania and New York.

McCarthy was indicted at Charleston, W. Va., May 27, 1925, for using the mails to defraud. He was arrested in New York Oct. 14, 1925, and furnished bail in the amount of \$17,000, but has since defaulted and his present whereabouts are unknown.

## British Coal Subsidy Nearly Doubled

A supplementary allowance of £9,000,000 for the coal mining subsidy, bringing the total voted to £19,000,000, was adopted by the British House of Commons, Dec. 10.

Winston Churchill, Chancellor of the Exchequer, in moving the vote, explained that 90 per cent of the subsidy had gone directly to wages.

Over the whole coal fields the mine owners were making scarcely any profit, he asserted, but were just able to keep themselves going. He estimated that the total cost of the subsidy would approach £21,000,000.



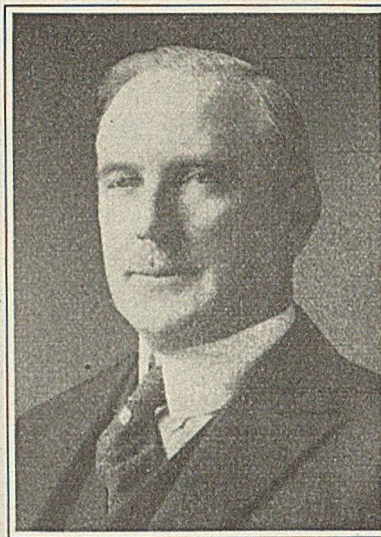
## Winding Gulf Mining Men Honor E. E. White; Make Snyder President

The Winding Gulf Operators Association at its seventeenth annual meeting in Washington, D. C., Dec. 9, accepted the resignation of E. E. White, who has been president of that association for seventeen consecutive years and honored him with a luncheon and an elaborate watch and chain. Mr. White retires because he has disposed of his holdings in the district to the Massachusetts Coke & Gas Co., and temporarily, at least, severs his connections with West Virginia smokeless coals to give closer attention to his banking and mining interests in the anthracite fields of Pennsylvania.

The association elected P. M. Snyder, of Mt. Hope, W. Va., president; W. Gaston Caperton, of Slab Fork, vice president; George Wolfe, of Beckley, secretary, and A. W. Laing, of McAlpin, W. Va., treasurer. The following were elected to serve on the executive committee: A. W. Laing, C. H. Mead, L. Epperly, W. B. Beale and T. H. Wickham.

At the testimonial luncheon Mr. Snyder, the newly elected president, presided and after a few appropriate remarks turned the meeting over to John Laing, who acted as toastmaster. Outlining the condition of Raleigh County some twenty years ago, when Mr. White first entered the field, and clearly defining the vision and progressive action in policy carried out under the leadership of Mr. White, the various speakers emphasized the high regard and esteem in which the coal industry of southern West Virginia holds Mr. White and the great regret that is felt at his departure.

Among those who spoke were W. J. Harahan, president, Chesapeake & Ohio R. R.; S. M. Adsit, traffic manager, Virginian Ry.; D. E. Spangler, superintendent of transportation, Norfolk & Western Ry.; Harry L. Gandy, executive secretary, National Coal Association;



E. E. White

tion; E. J. McVann, secretary, Smokeless Coal Operators' Association; A. M. Belcher, attorney, from Charleston, W. Va.; Holly Stover, Chicago; Rev. H. P. Pullin, McKeesport, Pa.; George W. Williams, attorney, Beckley, W. Va.; A. M. Dudley, coal freight agent, Chesapeake & Ohio Ry.; George I. Neal, attorney, Huntington, W. Va.; William McKell, Glen Jean, W. Va.; Frank Wadleigh, New York City; A. J. King, Huntington, W. Va.; Ernest Chilson, Raleigh, W. Va.; G. H. Caperton, president, New River Coal Co., Charleston, W. Va.; W. Gaston Caperton, Slab Fork, W. Va., the first secretary of the association, who served for ten years in the early days; J. Lewis Bumgardner, attorney, of southern West Virginia.

The Bureau of Mines has tentatively accepted the invitation from the Safety Engineers of California to hold the 1926 International First-Aid and Safety meet in San Francisco. It is planned to alternate these annual affairs between the Far West and the Middle West.

## Disturbances Break Out at Pittsburgh Coal Co. Mines

After a period of uninterrupted operation at the mines of the Pittsburgh Coal Co. in western Pennsylvania, where the 1917 scale is being paid, two disturbances took place in quick succession at Montour No. 10 mine, at Library, and at Midland mine, at Housonton. A small-sized riot occurred at Library Dec. 8 and early the following morning a double house owned by the company at Midland mine was dynamited. A family in the building escaped uninjured.

The Sunday before the riot at Library union sympathizers had beaten two negro miners, and on Wednesday a truck which had been carrying supplies to the mine was stoned by a mob of men and women. The driver lost control of the truck and it crashed into the crowd, killing one woman and injuring several other persons. Several deputy sheriffs at the mine also were injured in the fracas. Fifty warrants were sworn out and deputies are still serving them.

Immediately after the trouble the company stated that instead of curtailing operations at the plants, they had increased. By the end of the week the working force had risen to a new maximum of 1,088 men. There were 225 men at work at Library and 303 at Midland. On Tuesday the Pittsburgh Coal Co.'s legal department started eviction proceedings against ten miners living at Library and several at Midland. The houses are needed for men willing to work at the mines.

## Higher Study in Rescue Work

The U. S. Bureau of Mines has just completed a course of advanced instruction in rescue and recovery operations following mine fires and explosions for the Davis Coal & Coke Co., Thomas, West Virginia. This new department of the Bureau, the Safety Extension Service, under the direction of J. J. Forbes, chief engineer, and his assistant, George Grove, in three weeks trained and issued certificates to forty-seven employees of the company. Certificates also were conferred on three directors of rescue stations and one mine inspector in the State of West Virginia. Also a certificate to one mine inspector from the State of Maryland. The course will be given to a limited number of employees of the same company at Boswell, Pa., some time in December. Upon the completion of the instruction this company will have approximately sixty men trained in the advanced work.

## Indiana Miners Rescue Three From Explosion and Fire

In the Columbia mine, near Bicknell, Ind., on the morning of Nov. 27, while three miners were loading cartridges preparatory to shooting down coal, a keg of blasting powder exploded near them, hurling them some distance and inflicting severe burns on all three.

Edmund Capon and August Boury, who were working near the entry in which the explosion occurred, dashed through the curtain of fire and dragged two of the victims back to safety. Realizing that a third man remained in the burning entry, Capon fought his way back through the smoke, disregarding the danger of further powder explosions.

Boury, waiting outside, heard a faint cry above the crackle of the flames. Stripping off his shirt and

soaking it in water, he wrapped it about his head to guard against inhalation of gas fumes and flames, and dashed after Capon. He stumbled over the latter's body, where he had fallen by the prostrate form of the third victim of the explosion. Grasping the shirt collars of Capon and the blast victim, Boury dragged both back through the flames to the main entry. Though painfully burned, it was not until he had assisted in taking the four men to the surface and had aided in placing them in ambulances that Boury submitted to first-aid treatment for himself.

Physicians pronounced the burns of three of the men serious, and the condition of the fourth was said to be critical.

## Rainey Miners Get Free Powder

The W. J. Rainey Co., the largest independent coke producer in the Connellsville, (Pa.) field, has ended the long dispute over payment for blasting powder used by the miners. In the past a certain portion of the miner's wages was deducted for the powder used in blasting. This nearly caused a strike several times. The company has issued an announcement that in the future blasting powder will be furnished to miners free of all charge.

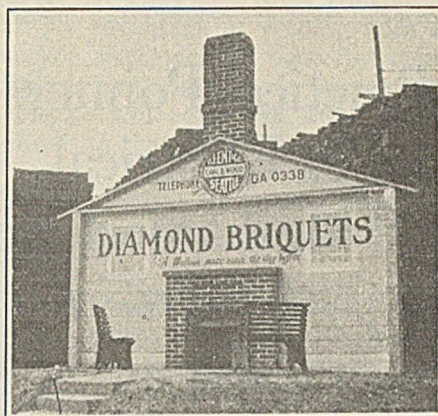


## Fifty-Two Lose Lives In Gas Explosion in Alabama Coal Mine

A gas explosion in Overton No. 2 mine of the Alabama Fuel & Iron Co., eleven miles from Birmingham, Ala., at 10:30 a.m. Dec. 10 exacted a death toll of fifty-two miners and company employees. Nine of the dead were white and forty-three negroes, most of whom were married men with families. Most of the fatalities resulted from the heavy volume of afterdamp which spread rapidly through the workings, only those in the near vicinity of the blast being burned.

Immediately following reports of the disaster Charles F. DeBardeleben, president of the company; F. E. Cash, S. E. Saxon and Dr. Merriweather, local U. S. Mine Rescue Station officials; Charles H. Nesbitt, chief state mine inspector, and several associate inspectors rushed to the scene with the Mine Bureau car, and equipment and crews were immediately organized for the rescue work and went into the slope. The bodies of seven negro miners were first removed and a number of men who were slightly injured and overcome by the fumes were taken to hospitals. These were found above the entry in which the explosion occurred. The blast occurred in Room No. 7 on the 6th right entry about 2,000 ft. from the opening, and in this entry the greatest number of dead were found. The death toll was large also in the 7th right and 6th left entries.

Rescue crews have been constantly at work since the disaster and all the dead with the exception of two white men have been removed from the mine. The two bodies still in the workings are supposed to be buried under a large rock fall which occurred in 6th right



Community Center Developed  
From Publicity Stunt

This advertising scheme created by P. J. Emt, Seattle coal dealer, consists of a fireplace set in the wall of a living room in a modern Colonial type bungalow. Two comfortable benches are set before the hearth. The display can be seen for several blocks, particularly at night, when the fire is burning. The fire, of glowing Diamond briquets, is lighted in the evening and little community gatherings are held, charmed by the homey atmosphere of the display.

entry and it is understood that it may require several days to remove this rock and recover the last of the victims. According to the records of the company 108 men went into the slope on the morning of the disaster.

The No. 2 Overton Slope, located 11 miles northeast of Birmingham, has been driven to a depth of about 3,000 ft. All inside workers are provided with electric cap lamps. Coal is mined by pick and the only electric cables in the mine are those supplying current to the pumps, none of which were located in the vicinity of the blast. It is a single-track slope, the coal being hoisted by an electric engine. The mine was not rock dusted but was thoroughly

## C. & N. W. Will Try Out Oil-Electric Locomotives

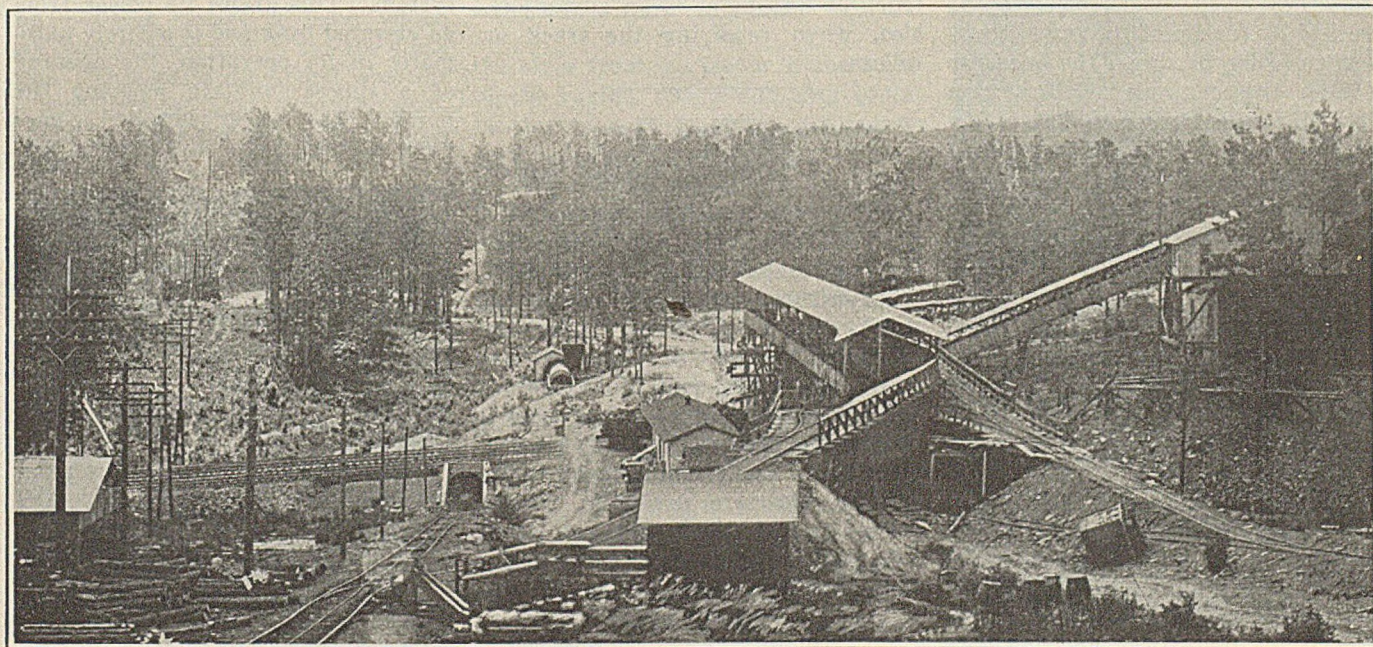
The Chicago & Northwestern Ry. is seriously considering the use of oil-electric locomotives in the Chicago switching district and the Chicago suburban territory. Two of these locomotives have already been procured for initial tests which will begin soon and last two months.

The locomotives to be used are of the Diesel internal-combustion type. The Diesels will be used to drive electric generators, which in turn will furnish power to drive the electric motors. The first locomotive was designed and built by the General Electric Co., the American Locomotive Co. and the Ingersoll-Rand Co. It will weigh about 60 tons and will develop 300 hp. The second locomotive, which weighs 100 tons and develops 600 hp., was designed and built by the Westinghouse Electric & Mfg. Co. and the Baldwin Locomotive Works.

The Jersey Central and Long Island railroads have been testing oil-electric locomotives for nearly a month.

sprinkled and watered by the latest approved methods. Excellent ventilation was provided and the best means of eliminating danger from gas were employed. No open lights or matches were permitted. Permissible explosives were used exclusively. The mine is modernly equipped, the best known safety practices being followed by the management, which provided regular instruction both individually and collectively in accident prevention.

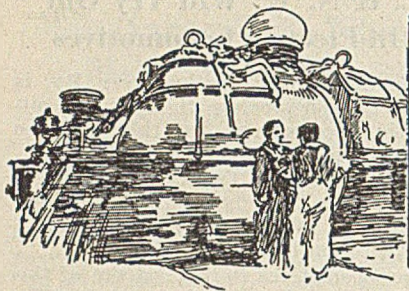
Officials of the state mining department, the U. S. Bureau of Mines and the operating company have made only a preliminary examination of the workings and will give out no official opinion as to the cause of the explosion.



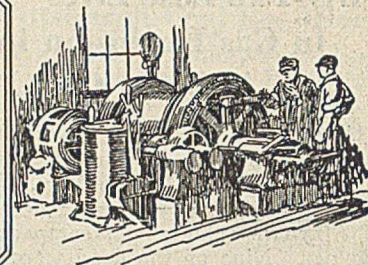
Exterior View of Overton Mine of the Alabama Fuel & Iron Co.

Showing main slope, tippie and washery of the operation where fifty-two men were killed in a gas explosion Dec. 10. Two seams are worked at this mine, which is located about 12 miles from Birmingham, Ala. The opening of the main slope can be seen in the left center of the picture. The building at the right, partly hidden by the trees, is the washery.





## Practical Pointers For Electrical And Mechanical Men



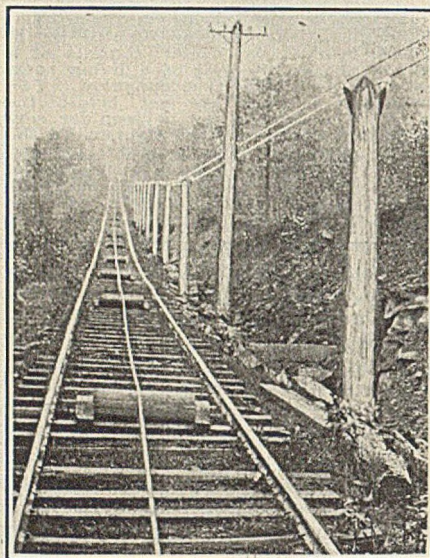
### Operator of Long Incline Can Be Signaled from Moving Car

At drift mines where the seam outcrops on the side of a mountain high above the railroad it is necessary to have a man-and-material incline. Many of these inclines are of such length or contour as to make it impossible for the hoist operator to see the car during its full travel. In such cases it is of advantage to have a method of signaling the operator from the car while at any point en-route. The Southern Mining Co. has such a method at its Balkan, Ky., mine.

An example of the desirability of such a signal system was demonstrated but a few minutes before the accompanying photograph was snapped of the incline leading up to the mine at Balkan. It happened this way: At the end of the day when the last man trip was coming down, a cow walked out on the track. To a stranger on the car it appeared that the truck was soon to be wrecked by reason of the cow. However, in order to signal the operator to stop the car one of the men reached for a copper rod kept on the truck and was about to touch it across the pair of bare signal wires, which parallel the track, when the cow suddenly decided to get out of the way.

#### PRESENTS NEAT APPEARANCE

These signal wires are supported on short poles spaced 40 ft. apart. Every third pole is a longer one and on the tops of these long poles the telephone lines are carried on steel cross arms. This combination signal-and-telephone line is of sturdy construction and presents a neat appearance. The signal wires are high enough above the ground to escape damage by live stock and yet low enough to be touched easily with a copper rod by a man standing on the truck. Provision for signaling the operator to stop or start the



**Signal Wires Are Within Reach**

A man riding on the truck can signal the operator to start or stop by reaching out with a piece of wire or metal rod and shorting the wires.

truck at any point is an advantage, also, when repairing the track or rollers.

### Topworkers Now Have Good Drinking Water

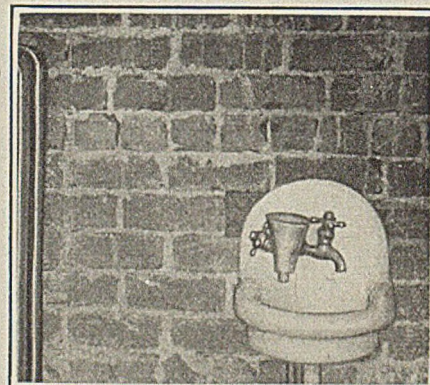
No mammal, with the possible exception of the camel, can long endure the heat and strain of a hard day's work without a periodic refreshing drink—water of course, being the beverage alluded to. Until a few years ago most men at the mines carried whatever water they needed with them when they went to work. Because of their employment in localities that are decidedly remote many underground workers must still, perforce, follow the same practice. Bottom and upperworks employees, on the other hand, nowadays usually are provided with drinking water at convenient locations near their places of employment.

The accompanying illustrations

show one of the drinking fountains (Fig. 1) installed at the mine of the Valier Coal Co., Valier, Ill., as well as the small brick structure in which it is housed. This particular fountain, which is one of several at various locations about the plant, is intended for the use of tippie hands and yardmen. It is, therefore, installed beside the hoist house and at the rear of the yardmen's shanty, a portion of which may be seen in Fig. 2.

The brick structure in which this fountain is housed provides adequate protection from the weather. Enough heat will be admitted during the winter months to insure against freezing and a cinder floor will keep the place dry. The fountain itself is white enameled and provision is made for filling glasses, cups or other receptacles.

During the past few months the Valier Coal Co., has been installing an excellent system to provide drinking water about its plant. A small hydraulic pump placed in the shop building provides pressure for this system. This draws its power from an elevated tank and is entirely automatic in its operation, the opening of a spigot fountain starting the pump. The water supplied comes from a deep well located some dis-



**Fig. 1—Topworks Drinking Fountain**

This is intended to furnish good drinking water to the tippie and yardmen. It is installed in a small brick structure in rear of the hoist house. Enough steam will be admitted to the radiator on the extreme left to keep the pipes from freezing even in the coldest weather. A tamped cinder floor in this building assures that it will always be dry.



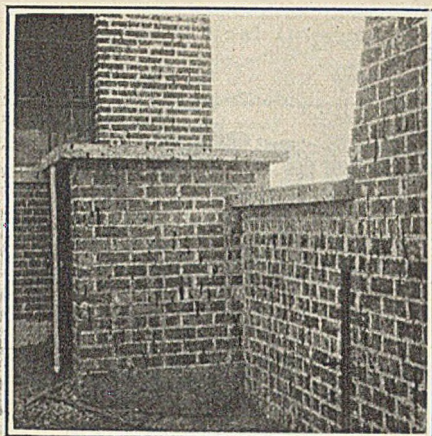


Fig. 2—Building in Which Fountain Is Housed

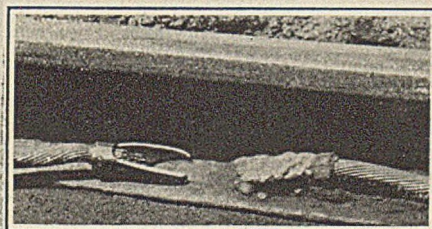
This little structure is provided with a concrete slab roof. The large building to the left is the hoist house and that to the right is the yardmen's shanty. On the extreme right is the chimney serving the fireplace in this latter structure.

tance from the mine shaft. The arrangement is such that an ample supply of wholesome drinking water is available to the employees at all times.

### Copper Welded Terminal Makes Good Bond

Welded bonds have come into general favor because of their high conductivity and permanency of the contact when properly applied. A new type of welded bond is shown in the accompanying illustration. The original photograph was taken at No. 8 mine of the Fordson Coal Co. at Stone, Ky. To make the picture effective an unwelded bond was placed with the terminal in the welding position beside a bond which has been applied and in use for some time. This particular bond was one of the first of this type installed, which accounts for the rather rough appearance of the weld.

The steel terminal is not intended to act as a conductor. Its purpose is to act as a mold and to add mechanical strength. The welding is done by an electric arc and a copper electrode. C. B. Loche, electrical engineer of the Fordson Coal Co.,



### Copper Electrode Makes Joint

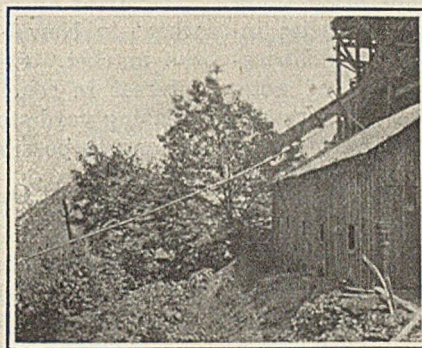
The terminal shown on the left is designed so as to form a mold into which the copper electrode is deposited. The unit then becomes a copper-to-steel contact.

states that he was early convinced of the advantage of welding with a copper electrode and that for some time before these bonds were available he had advocated such a terminal as that just described.

### Wire Rope Supports Chute For Slate Disposal

Old wire ropes removed from shafts, slopes, and inclines are used in a number of ways about the mines. An unusual application is that of supporting a slate-disposal chute, as shown in the accompanying illustration.

At this mine, that of the New Caryville Coal Co., Caryville, Tenn., the new dump house is at the head of a long monitor plane, and is near a ravine in which there is a large dumping space for slate. To carry



### Chute Supported on Ropes Obviates Trestling

At the mine of the New Caryville Coal Co., Caryville, Tenn., old ropes removed from monitor service form a suspension support for a refuse chute. The lower end is anchored to trees and the upper end to a rock ledge above the tippie. The chute will be extended down along the ropes as new dumping space is required.

the slate from the tippie to the edge of the ravine, where dumping could be started, a 50-ft. chute was necessary. Instead of building a trestle to support this chute, two old cables from the monitor plane were used as a suspension.

These cables are anchored at the lower end to a couple of trees located about 200 ft. down the ravine. At the upper end the ropes pass over a saddle just below the cross-over dump, and are anchored to a rock ledge. As necessary, the chute will be extended down along the ropes to discharge at a new position.

The dumping of the slate from the mine cars into the chute is handled on the same cross-over dump as the coal. This eliminates the necessity of cutting slate cars out of a trip. When a car thus loaded reaches the dump, a fly gate, which normally forms a section of the bottom of the

chute, is raised to a vertical position thus opening a hole through which the slate drops into the disposal chute.

### Fingered Tongs Convenient For Handling Nails

Taking care of the warehouse, storeroom, or storehouse, as it is variously termed at different mines, is usually a one-man job, and this man spends much of his time doing office work in connection with maintaining and dispensing the stock. One item of material particularly in demand, especially at mines where the coal company owns and maintains the houses, fences, and so forth, is that of nails; and no insignificant part of the warehouse man's time is taken up in filling orders for them.

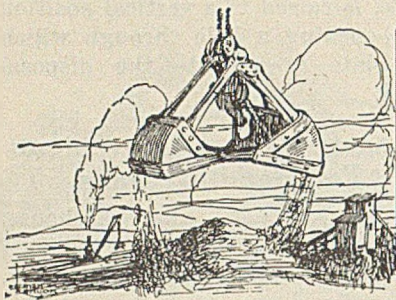
Ordinarily he "digs" the nails out of a bin with his fingers. Before returning to his work in the office he must stop to wash. Even this simple job of dispensing nails can be made much more pleasant, and can be done in half of the time, by the use of the proper tool. In the illustration is shown the eight-fingered tongs used in handling nails at the Earlington warehouse of the West Kentucky Coal Co. This tool, which was made by the mine blacksmith, picks up a bunch of nails in much the same way as a man would pick up a double handful with his fingers. Several pounds can be picked up at one grab.



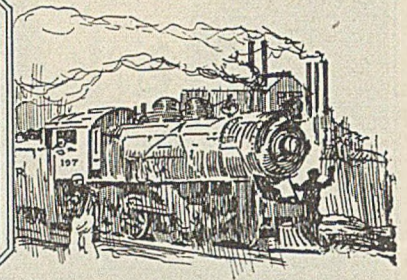
### An Easy Way to Handle Nails

This photograph, taken in the Earlington warehouse of the West Kentucky Coal Co., shows how the home-made tongs are used in dispensing nails.





## Production And the Market



### Coal Market Suffers from Effects of Politics, Buying Habits and Mild Weather

Several efforts to bring the hard-coal operators and union leaders together to resume negotiations that would bring about a settlement of the anthracite strike having come to naught, Governor Pinchot's proclamation calling a special session of the Pennsylvania Legislature to begin Jan. 13 occasioned little surprise. Although seven other subjects are listed for consideration there is little doubt that the difficulty in the anthracite industry will occupy an important place in the deliberations of the legislators. It is still worthy of note, incidentally, that despite the approach of January the consuming public displays no unwonted interest in the suspension, the principal insistence on action to bring about a resumption of mining coming from the business interests of the mining region. Meanwhile the tendency to hold back, awaiting results, probably will continue to be in evidence, with a belief in the background that such tactics certainly will not lend any aid to an upward trend in the prices of substitutes.

Failure to release for publication the contents of President Coolidge's reply to John L. Lewis' veiled strike threat in appealing for government intervention in the bituminous coal situation has heightened public interest in the letter from the White House, but as the reason assigned for its suppression was a desire not to interfere with Governor Pinchot's efforts for peace in the hard-coal region it is not likely that the President's reply will ever be published.

#### Soft Coal Weakens Further

Softness in the bituminous coal market is becoming more marked, due to a combination of untoward circumstances—from the standpoint of the trade. Buying habits, as exemplified in the customary tapering off in

orders with the approach of the holidays and inventory taking, in conjunction with the usual readjustment following the close of the lake season has had an unsettling effect on conditions. Generally mild temperatures and the maintenance of production at a high level have added further weight to the depression.

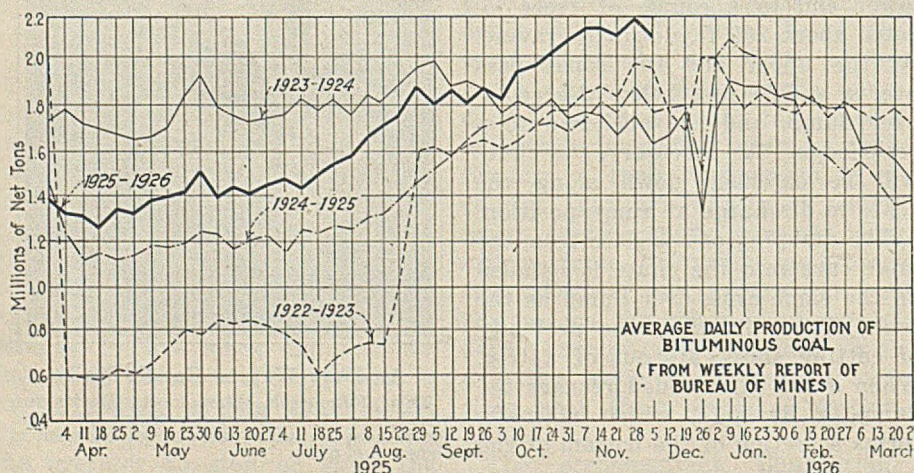
Save for an occasional cargo of pea and No. 1 buckwheat in New York Harbor, hard coal is virtually off the market. Consumers continue to show a growing interest in coke, though retailers are chary about increasing yard stocks, preferring to play a waiting game as long as possible.

#### Output Still Hitting High

Production of bituminous coal during the week ended Dec. 5 is estimated by the Bureau of Mines at 12,768,000 net tons, which is the highest weekly tonnage reported since Dec. 11, 1920. This compares with an output of 11,600,000 tons in the preceding week. Anthracite output in the week ended Dec. 5 totaled 62,000 net tons, a gain of 26,000 tons over the previous week. Total output since Jan. 1 is 61,945,000 tons, which is 26 per cent less than that of the corresponding period of 1924.

Coal Age Index of spot prices of bituminous coal stood on Dec. 14 at 182, the corresponding price being \$2.20, compared with 184 and \$2.22 on Dec. 7.

Dumpings of coal at Lake Erie ports during the week ended Dec. 13, according to the Ore & Coal Exchange, were as follows: Cargo, 107,301 net tons; steamship fuel, 3,866 tons—a total of 111,167 net tons, compared with 363,225 tons in the preceding week. Hampton Roads dumpings during the week ended Dec. 10 totaled 337,558 net tons, as against 464,217 tons in the previous week.



#### Estimates of Production

(Net Tons)

##### BITUMINOUS

	1924	1925
Nov. 21.....	10,910,000	12,596,000
Nov. 28.....	9,885,000	11,600,000
Dec. 5 (b).....	10,831,000	12,768,000
Daily average.....	1,805,000	2,128,000
Cal. yr. to date..... (c)	443,981,000	480,679,000
Daily av. to date.....	1,556,000	1,679,000

##### ANTHRACITE

Nov. 21.....	1,827,000	46,000
Nov. 28.....	1,611,000	36,000
Dec. 5.....	1,814,000	62,000
Cal. yr. to date..... (c)	84,172,000	61,945,000

##### BEEHIVE COKE

Nov. 28 (a).....	160,000	293,000
Dec. 5 (b).....	174,000	299,000
Cal. yr. to date..... (c)	8,865,000	9,656,000

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



### Consigned Coal Depresses Midwest Trade

Developments of the last week in the Midwest market show that operators have not yet learned their lesson on the subject of consigned coal. One company producing smokeless coal consigned enough of prepared sizes to Chicago to break the market to smithereens. When some of it was on demurrage it was unloaded to a wholesaler at \$3 for lump, \$3.20 for nut, and \$3.50 for egg—and it was standard coal. Western Kentucky operators and West Virginia splint operators, as well as some in eastern Kentucky, did the same thing.

The market on domestic coals has been extremely unsatisfactory, due to mild weather and the high prices brought about by the last buying flurry. Operators have not been able to get enough business on a day to day basis to run their mines and have had either to fall back on old orders taken a month ago, ship coal on consignment or close their mines. Only a few closed their mines, but those few are reputed to be the best merchants in the game.

West Virginia splint domestic coals are offered freely on the basis of \$2.50 for lump and \$2 for egg. Eastern Kentucky coals can be had at \$2.75 for lump in hoppers and \$2 for egg in hoppers. Eastern Kentucky coals in flat-bottom or low-side cars are about 25c. higher. West Kentucky lump has been coming into Chicago on consignment as low as \$1.75, and by lump is meant 1½-in. steam lump but

6-in. shaker-screened boom-loaded domestic lump. Indiana domestic coals have been uniformly weak. The only outfits who are apparently holding their prices are the big operators in Franklin County and in southern Illinois.

Steam coals seem to be in fairly good demand, as producers are having no difficulty in disposing of what coal they have on hand from day to day. Prices are firm, but not enough to warrant the slightest increase. There was a flurry a week or so ago when some of the bigger industries purchased their December requirements, but this has subsided and the steam-coal market now is going along in an uneventful and steady way. It is anticipated that if it becomes much more difficult to move domestic coals there will be an increase in steam-coal prices.

Mild weather has shown its effect in the movement of coal from the Williamson, Franklin and Harrisburg fields. Lump seems to move easily, but egg is not moving freely and nut and the smaller sizes are blocking the tracks. Some mines report moving lump under pressure but everywhere there are "no bills," although the mines show fairly good working time. Railroad tonnage from shaft mines reported good. In the strip mines working time is good, with a ready market, although prices vary. Railroad tonnage from strip mines also is good. Duquoin and Jackson County mines are working four and five days a week and coal is hard to move, with "no bills" always on hand. Mt. Olive conditions show improvement. Railroad tonnage has eased off but steam

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

Low-Volatile, Eastern					Midwest				
	Market Quoted	Dec. 15 1924	Nov. 30 1924	Dec. 7 1925		Market Quoted	Dec. 15 1924	Nov. 30 1924	Dec. 7 1925
Smokeless lump.....	Columbus.....	\$4.10	\$5.25	\$5.25	\$4.00@	Chicago.....	\$3.25	\$3.50	\$3.50
Smokeless mine run.....	Columbus.....	2.00	3.10	3.10	2.75@	Franklin, Ill. lump.....	2.35	2.35	2.35@ 2.65
Smokeless screenings.....	Columbus.....	1.25	2.60	2.60	2.50@	Franklin, Ill. mine run.....	1.60	1.60	1.75@ 2.00
Smokeless lump.....	Chicago.....	3.85	5.00	4.50	3.25@	Franklin, Ill. screenings.....	2.85	3.00	3.00
Smokeless mine run.....	Chicago.....	1.85	2.50	2.35	2.25@	Central, Ill. lump.....	2.20	2.30	2.25@ 2.35
Smokeless lump.....	Cincinnati.....	3.75	5.10	5.10	3.50@	Central, Ill. mine run.....	1.65	1.40	1.35@ 1.50
Smokeless mine run.....	Cincinnati.....	1.15	1.90	1.90	1.75@	Central, Ill. screenings.....	3.10	3.10	3.00@ 3.25
Smokeless screenings.....	Cincinnati.....	4.10	5.30	5.30	4.90@	Ind. 4th Vein lump.....	2.35	2.35	2.35
Smokeless mine run.....	Boston.....	1.95	1.95	1.85	1.75@	Ind. 4th Vein mine run.....	1.55	1.60	1.85
Clearfield mine run.....	Boston.....	2.30	2.25	2.15	2.00@	Ind. 4th Vein screenings.....	2.75	2.35	2.50
Cumbria mine run.....	Boston.....	2.15	2.10	2.00	1.85@	Ind. 5th Vein lump.....	2.10	1.95	1.95
Somerset mine run.....	Boston.....	2.80	2.95	2.95	2.75@	Ind. 5th Vein mine run.....	1.30	1.40	1.35@ 1.50
Pool 1 (Navy Standard).....	New York.....	2.70	2.95	2.95	2.80@	Ind. 5th Vein screenings.....	3.00	2.85	2.85
Pool 1 (Navy Standard).....	Philadelphia.....	2.30	2.20	2.20	2.20@	Mt. Olive lump.....	2.35	2.00	2.00
Pool 1 (Navy Standard).....	Baltimore.....	2.05	2.30	2.30	2.15@	Mt. Olive mine run.....	1.10	1.75	1.75
Pool 9 (Super. Low Vol.).....	New York.....	2.15	2.30	2.30	2.20@	Standard lump.....	2.75	2.40	2.40
Pool 9 (Super. Low Vol.).....	Philadelphia.....	1.70	2.00	2.00	2.00@	Standard mine run.....	1.95	1.80	1.80
Pool 9 (Super. Low Vol.).....	Baltimore.....	1.80	2.00	2.05	1.90@	Standard screenings.....	1.05	.85	.85
Pool 10 (H.Gr.Low Vol.).....	New York.....	1.75	2.05	2.05	2.00@	West Ky. block.....	2.35	2.10	2.10
Pool 10 (H.Gr.Low Vol.).....	Philadelphia.....	1.55	1.90	1.90	1.90@	West Ky. mine run.....	1.55	1.35	1.35
Pool 10 (H.Gr.Low Vol.).....	Baltimore.....	1.60	1.75	1.75	1.65@	West Ky. screenings.....	1.10	.80	.80
Pool 11 (Low Vol.).....	New York.....	1.45	1.90	1.90	1.85@	West Ky. block.....	2.35	2.35	2.05
Pool 11 (Low Vol.).....	Philadelphia.....	1.45	1.65	1.65	1.60@	West Ky. mine run.....	1.55	1.25	1.25
Pool 11 (Low Vol.).....	Baltimore.....								
High-Volatile, Eastern					South and Southwest				
Pool 54-64 (Gas and St.).....	New York.....	1.50	1.55	1.55	1.50@	Big Seam lump.....	Birmingham.....	2.85	2.35
Pool 54-64 (Gas and St.).....	Philadelphia.....	1.50	1.60	1.60	1.55@	Big Seam mine run.....	Birmingham.....	1.60	2.00
Pool 54-64 (Gas and St.).....	Baltimore.....	1.45	1.65	1.65	1.65@	Big Seam (washed).....	Birmingham.....	1.85	2.10
Pittsburgh se'd gus.....	Pittsburgh.....	2.40	2.85	2.85	2.75@	S. E. Ky. block.....	Chicago.....	2.60	3.60
Pittsburgh gas mine run.....	Pittsburgh.....	2.10	2.35	2.35	2.25@	S. E. Ky. mine run.....	Chicago.....	1.50	2.15
Pittsburgh mine run (St.).....	Pittsburgh.....	1.85	2.15	2.05	2.00@	S. E. Ky. block.....	Louisville.....	2.60	3.50
Pittsburgh slack (Gas).....	Pittsburgh.....	1.20	1.45	1.55	1.50@	S. E. Ky. mine run.....	Louisville.....	1.40	1.60
Kanawha lump.....	Columbus.....	2.30	2.85	2.85	2.50@	S. E. Ky. screenings.....	Louisville.....	.95	1.40
Kanawha mine run.....	Columbus.....	1.55	1.70	1.70	1.55@	S. E. Ky. block.....	Cincinnati.....	2.35	3.10
Kanawha screenings.....	Columbus.....	.90	1.20	1.20	1.15@	S. E. Ky. mine run.....	Cincinnati.....	1.50	1.60
W. Va. lump.....	Cincinnati.....	2.20	3.10	2.60	2.50@	S. E. Ky. screenings.....	Cincinnati.....	.90	1.20
W. Va. gas mine run.....	Cincinnati.....	1.50	1.65	1.65	1.50@	Kansas lump.....	Kansas City.....	4.75	5.00
W. Va. steam mine run.....	Cincinnati.....	1.40	1.55	1.50	1.45@	Kansas mine run.....	Kansas City.....	3.00	3.10
W. Va. screenings.....	Cincinnati.....	.95	1.25	1.15	1.00@	Kansas screenings.....	Kansas City.....	2.30	2.30
Hocking lump.....	Columbus.....	2.55	2.85	2.85	2.50@				
Hocking mine run.....	Columbus.....	1.60	1.65	1.80	1.65@				
Hocking screenings.....	Columbus.....	.80	1.25	1.35	1.20@				
Pitts. No. 8 lump.....	Cleveland.....	2.40	2.50	2.35	1.95@				
Pitts. No. 8 mine run.....	Cleveland.....	1.85	1.85	1.85	1.80@				
Pitts. No. 8 screenings.....	Cleveland.....	1.35	1.45	1.55	1.40@				

\* Gross tons, f.o.b. vessel, Hampton Roads.

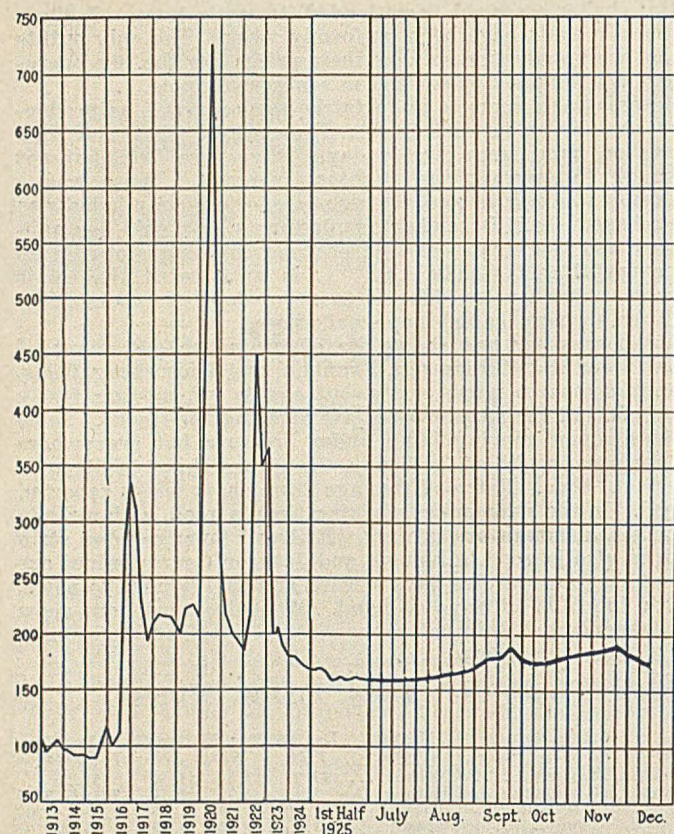
† Advances over previous week shown in heavy type; declines in italics.

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

Market Quoted		Freight Rates		Dec. 15, 1924		Dec. 7, 1925		Dec. 14, 1925	
				Independent	Company	Independent	Company	Independent	Company
Broken.....	New York.....	\$2.34			\$8.00@ \$9.25				
Broken.....	Philadelphia.....	2.39			9.15				
Egg.....	New York.....	2.34		\$8.25@ \$8.75	8.75@ 9.25				
Egg.....	Philadelphia.....	2.39		9.45@ 9.75	8.80@ 9.25				
Egg.....	Chicago.....	5.06		8.17@ 8.40	8.08	\$9.50@ 10.00	\$8.03@ \$8.25	\$9.50@ 10.00	\$8.03@ \$8.25
Stove.....	New York.....	2.34		10.00@ 10.50	9.00@ 9.50				
Stove.....	Philadelphia.....	2.39		10.10@ 10.75	9.15@ 9.50				
Stove.....	Chicago.....	5.06		8.80@ 9.00	8.53@ 8.65	10.00@ 11.00	8.48@ 8.80	10.00@ 11.00	8.48@ 8.80
Chestnut.....	New York.....	2.34		10.00@ 10.50	8.75@ 9.40				
Chestnut.....	Philadelphia.....	2.39		10.00@ 10.75	9.25@ 9.40				
Chestnut.....	Chicago.....	5.06		8.61@ 9.00	8.40@ 8.41	10.00@ 11.00	8.50@ 8.75	10.00@ 11.00	8.50@ 8.75
Pea.....	New York.....	2.22		4.75@ 5.50	5.50@ 6.00				
Pea.....	Philadelphia.....	2.14		5.75@ 6.09	6.00				
Pea.....	Chicago.....	4.79		5.36@ 5.75	5.36@ 5.95	5.50@ 6.00	5.50@ 6.00	5.50@ 6.00	5.50@ 6.00
Buckwheat No. 1.....	New York.....	2.22		2.00@ 2.50	3.00@ 3.15				
Buckwheat No. 1.....	Philadelphia.....	2.14		2.50@ 3.00	3.00		2.50@ 3.00		2.50@ 3.00
Rice.....	New York.....	2.22		1.75@ 2.00	2.00@ 2.25				
Rice.....	Philadelphia.....	2.14		2.00@ 2.25	2.25				
Barley.....	New York.....	2.22		1.25@ 1.50	1.50				
Barley.....	Philadelphia.....	2.14		1.50	1.50				
Birdseye.....	New York.....	2.22		1.40@ 1.60	1.50				

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





Coal Age Index of Spot Prices of Bituminous Coal F.O.B. Mines

	1925			1924
	Dec. 14	Dec. 7	Nov. 30	Dec. 15
Index .....	182	184	187	169
Weighted average price...	\$2.20	\$2.22	\$2.26	\$2.04

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, 1924, 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.

demand keeps up for the northern market and domestic tonnage is fair. Reports have it that poor preparation has seriously affected the market for this coal. In the Standard field there is no change. Coal is sold at about cost of production. There are always "no bills" on hand and there seems to be a surpluse of coal over demand. Mines are working three to four and sometimes five days a week. Railroad tonnage is reported good. Cars have been plentiful in the past week and the movement of coal better than for six weeks on the part of the roads. Prices are unchanged.

At St. Louis warm weather eased off the demand for domestic locally although there has been a little moving, principally of the cheaper grades. High-grade Illinois has been moving under pressure, with very little call for smokeless or anthracite, though coke is doing fairly well. Country domestic is fairly good, for the cheaper coals principally, with a heavy volume of western Kentucky coming in west of the river and eastern Kentucky coming in east of the river. Country steam is easy.

### Softness Appears in Kentucky

Practically all coals are weaker in Kentucky as a result of very mild weather, good car supply, heavy production, lack of demand, and shading on the part of some jobbers and producers in an effort to force retailers to take on more coal. There doesn't appear to be so much distress fuel or "no bill" cars on track in eastern Kentucky but some lots of fifty to a hundred cars have been offered at considerably under the markets.

Movement into various districts has been good, but as production in all sections is heavy, many mines in eastern and western Kentucky are keen for business. Though prices in western Kentucky are being fairly well maintained in so far as quotations are concerned, some shading is being

done to move "no bills," and it is reported that tonnage has eased up somewhat. This is reflected by stronger markets on screenings, which are in demand, with production curtailed due to lack of movement on prepared.

The eastern Kentucky market may be quoting some block coal at above \$3.50, but the market to the trade is \$3@3.50 through the jobbers. Lump is \$2.75@3; egg, \$2.25@2.75; nut, \$2@2.50; mine-run, \$1.50@1.75; screenings, \$1.10@1.40, the latter being considerably weaker. Western Kentucky block is \$2@2.25; lump, \$1.75@2; egg, \$1.60@1.85; nut, \$1.35@1.50; mine-run, \$1.25@1.50, and screenings stiffer, at 80c.@\$1.10.

### Northeast Trade Comparatively Good

While the movement of coal from the docks at Duluth and Superior has fallen off in the last ten days as compared with the peak period of last month, operators report a good volume of business. Industrial demand is satisfactory, with shipments going over a wider territory than for several seasons, trade in southern Minnesota that had been supplied from Illinois and Indiana mines having been regained since the upward readjustments in freight rates.

Demand from the Minnesota iron-range district has slowed down since the conclusion of ore shipments for the season. Retailers have been ordering small tonnages at a time, but with the necessity of more frequent buying, the trade is reaching good proportions.

Shipments from the docks during November were 27,411 cars, compared with 31,685 cars in October and 28,765 cars in November last year. Shipments in December have been lighter than in November.

Receipts from Lake Erie docks in November totaled 976,978 tons, bringing the aggregate for the season to Nov. 30 to 8,665,616 tons, an increase of 1,214,163 tons as compared with the same period last year. Last month 5,400 tons of anthracite was brought over from Fort William and delivered to a briquetting plant at Superior, making hard-coal receipts for the season 796,248 tons, a falling off of 474,457 tons as compared with last season.

Supplies of Pocahontas and other smokeless coals, as well as domestic coke and briquets will be available in good tonnages as substitutes for anthracite consumers. Figuring that difficulty may be experienced in supplying prepared sizes of Pocahontas by the first week in February, dealers have been trying to induce consumers to accept mine-run Pocahontas. Progress has been made in the campaign, with the wide spread in quotations a consideration. Quotations are steady for both anthracite and bituminous coals, no changes having been reported lately. Pocahontas prepared sizes are \$8.50@9; mine-run, \$5.25@5.50, and screenings, \$4.25.

Milwaukee dock managers report business rather quiet at present, but they expect betterment with the beginning of the new year. Prices continue unchanged. The last cargo of the season of 1925 has arrived from the lower lakes, bringing the December receipts of bituminous coal up to 128,957 tons. No anthracite has been received since Sept. 15.

### Lump Backs Up in Kansas

Continued mild weather has reduced the demand for coal in the Southwest to the point where sixty or seventy cars of lump are standing on Kansas tracks and some mines in Arkansas are idle part of the time. Kansas operators have maintained full-time production, with all sizes other than lump moving as produced. Only a few days of cold weather would be required to pile up orders again.

In Utah the demand for slack is a little better than the supply. Slack and domestic lump are moving faster now than other grades; nut and lump are said to be slowing up. The market as a whole might be described as fair. Weather conditions have not been entirely satisfactory from the standpoint of the coal trade thus far, except for one or two days. Industrial demand is about normal for the season, or a little better. Retailers say business is better than for several weeks. The car situation is good and "no bills" on tracks are kept at a minimum. Prices remain steady.

Continued warm weather, particularly in Nebraska and Kansas, has caused a sudden slump in orders for future delivery of Colorado domestic and steam coal. Operations of the mines has been reduced to about 85 per cent of capacity. No cancellations are coming in, but orders for future delivery are being held in abeyance pending further advices.



### Realignment Unsettles Cincinnati Market

Readjustment of smokeless-coal prices almost amounted to a rout at Cincinnati last week. Under the influence of small accumulations, lack of buying interest and the usual seasonal disinterestedness the spot market on lump slipped within ten days from \$5@5.25 to \$3.50@3.75. These lower prices were on "spot," "distress" or "no-bill" cars, however, as the old line dealers who sold on contract for the month at \$5 and \$5.25 are billing coal to their customers at the old level. Egg fared a little better, "spot" holding at \$3.75@4 for Western delivery. Mine-run was not greatly affected, maintaining its range of \$2.25@2.50. Screenings, through the fact that byproduct takers are careful on coke sales and require less, is soft at \$1.75@2.

In high-volatile there has been a tendency to softness that cannot be actually reflected through quotations. After West Virginia offerings dipped to \$2.50 for low-grade lump there was a bit of a recovery with the market holding fairly well at \$2.75, but late in the week it did not take much bargaining to get \$2.50 6- and 4-in. lump once more. Southeastern Kentucky producers tried to hold their market at \$3, a drop of 25c. In most instances they were successful, though late week prices showed some quotations going out at \$2.75. Egg prices were clipped off to a general range of \$2@2.25. Mine-run held firmer, what reductions there were coming on gas, byproduct and the higher gradings. The slip here generally was about 10c., though the low grades were fairly well held around \$1.45@1.50. Screenings were sagging. Low-grade Kentucky hit bottom around 90c. to the trade. About the lowest quotations on West Virginias were \$1. Higher priced slack, however, made no rapid descent so that the general average was maintained at \$1.10@1.15.

There has been no change in the retail situation.

High temperatures have had a weakening effect on the domestic trade in Columbus and central Ohio. Retailers are buying only in small lots, as their stocks are ample to take care of the reduced demand. The public is asking for splints and high-grade Kentucky product in preference to Pocahontas and other smokeless varieties because of the wide spread between the prices. Ohio grades are moving fairly well when the warm weather is taken into consideration. There is only a small amount of free coal on the Columbus market and further reductions in prices are not expected at this time. Demurrage coal is not reported in central Ohio, although there is a considerable tonnage in Detroit and Toledo.

The steam demand continues irregular and spotty, prices having suffered to a certain extent. A few short-time contracts, extending for 60 to 90 days, have been closed recently.

Production in the southern Ohio field is about 30 per cent of capacity.

There is little if any change in the eastern Ohio situation, except that spot prices of slack and nut-and-slack have eased off, being 10 to 15c. per ton less than those prevailing a week ago, and the quantity available is easily meeting the demand.

In the steam trade buyers are slow to make purchases other than for current needs.

Retail yards are pretty well loaded up, as domestic buying has not been heavy since the scare of some six or eight weeks ago. Pocahontas lump is quoted at \$3@3.50 f.o.b. mines, today, as compared with \$5@6 six to eight weeks ago. Other West Virginia and eastern Kentucky domestic lump is now \$2.50@3, f.o.b. mines.

During the week ended Dec. 5 eastern Ohio production

was 339,000 tons, or about 48 per cent of potential capacity. This was 42,000 tons over the output of Thanksgiving week and 70,000 tons over the corresponding week a year ago.

### Pittsburgh Trade "Relatively Poor"

The Pittsburgh market continues in relatively poor condition. Buying of domestic coal by retail yards has, if anything, decreased. Industrial consumption continues heavy, but buyers are very reserved about making commitments.

Open-market demand for gas coal is quite limited, as has been found by some Connellsville operators seeking a market for a little surplus. The regular consumers seem to be covered in large part by contracts running to April 1. Slack continues firm at recently advanced prices, indicating limited shipments of lump.

Prices for Pittsburgh district coal are only a trifle above the level of last summer, when they were as low as they could possibly go.

The aspect of the Buffalo coal situation changes pretty often, but it never seems to benefit the straight bituminous situation. That is as dull as ever and it promises to remain so till the strike is settled, when it is expected that there will be a period of no demand to speak of. Sometimes one sort or another gets a trifle scarce, but the prices do not vary visibly.

### New England Market Still Slipping

In New England the market for steam coal reflects a further decline. Prices are off even from the levels of a week ago, and there is only scattering inquiry for spot bituminous of any character. The smokeless agencies at this end are striving to place a volume consistent with current mining, but further curtailment will have to be resorted to if spot prices are not to drop to a still lower range. Notwithstanding special rate dispensations the flow of prepared sizes north from the Pocahontas and New River fields is by no means as heavy as predicted; retail dealers have taken on about all of this fuel they can conveniently absorb and the consumer is being advised on every hand to confine his requirements to mine-run. Even public fuel committees are now saying that a mistake was made in dwelling so much on the advantages of lump, egg and chestnut from the smokeless districts. Meanwhile the low-volatile producers in Pennsylvania enjoying the Clearfield rate are keeping tight hold of the market they developed before the through rates from Pocahontas and New River were ordered.

Current prices on board vessels at Hampton Roads for No. 1 navy standard coals are wobbling around \$5 per gross ton, with occasional sales at materially less than that figure. No possible buyer is allowed to escape, and the trade is being assured that mine-run is now carrying a higher percentage of coarse coal than was the case a few weeks ago. Shipments coastwise on contract are about normal, although water freights have eased somewhat under the influence of better supply.

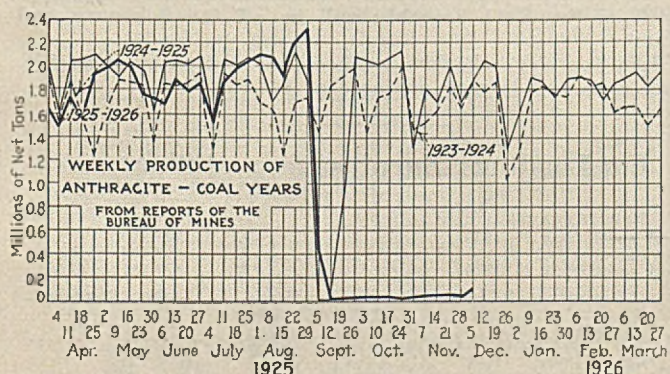
For inland delivery prices on cars at Boston and Providence have slumped similarly, the former level of \$6.50 having been shaded 25.@40c. the past few days. At Providence there seems to be an especially ragged market.

Continued mild weather is the apparent reason for so little anxiety over the depleted stocks of anthracite. The public mind is resting in security, as far as this territory is concerned. The small proportion of householders who have thus far been forced to buy substitutes are mild in their comment and seem quite reconciled. As yet there is nothing approaching a panic and no indication of an acute shortage of fuel later on.

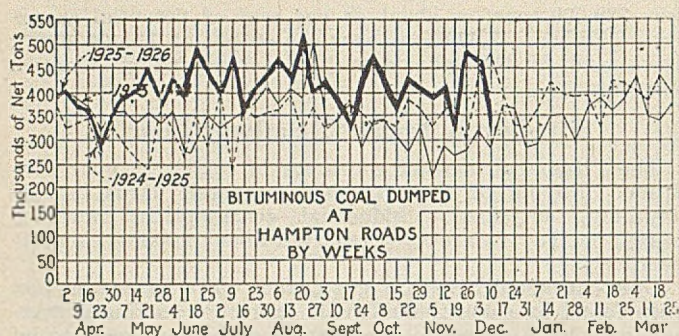
### Trade Steady at New York

New York is using soft coals in larger quantities in place of anthracite. Although there has been a slight drop in demand for mine-run coals, buying is steady and the urging of the State Fuel Commission that they be used instead of hard coal seems to be bearing fruit. Demand is much less than it should be, mostly due to weather conditions, but this is expected to be speedily overcome with the first stretch of low temperature. Meantime dealers are buying carefully and in small quantities.

Shipments of New River and Pocahontas sized coals to







Long Island have been greater than the demand, with the result that distress coal has been let go at less than current market quotations. There has been some rejections of shipments because of indifferent preparation. Quotations for egg and nut sizes range \$4.75@5.50.

Screened coals from central Pennsylvania are quoted at \$3.50@5, according to quality and preparation. Broad Top egg and nut are \$6.35@7.

Purchases are in good volume at Philadelphia, but there is no particular anxiety on the part of the consumer about getting fuel. Business in sized coals has been disappointing during the past two weeks, high volatiles from western Pennsylvania and northern West Virginia having declined from \$5 to almost half that price, with no business. Low volatile is a bit better, but even these have declined sharply. A fair volume of Pocahontas and New River sizes is coming in, but coals that sold for \$7 a short time ago are now plentiful at \$5 and even 50c. lower.

Rail fuel continues in good volume, and inquiries for good tonnages are abroad. Tidewater trade is extremely light. Bunkers are fair, some interests reporting a slight increase. Prices, though not particularly strong, are well maintained.

The fuel trade at Baltimore has been quiet in the last two weeks. While best grade coals are holding fairly well, lower grades in many cases can be bought considerably off the so-called average quotations. The flurry that attended sales of prepared sizes of high volatile coals, used as substitutes for anthracite, has come to an end. Such coals, which in October and part of November brought as high as \$5.50 for egg, are now freely quoted at \$2.15@2.25. Coals for industrial use are, if anything, a little weaker than a week or ten days ago. Pool 71 continues about on the same level, but high grade Pool 9, which ten days ago brought \$2.05@2.10, is offering at \$2@2.05. No exports are reported.

Production in the Alabama field is now being speeded up to the limit to fill the heavy requirements of the trade for current consumption and holiday storage. All mines are operating full time with maximum production. Inquiry is good for all grades of steam fuel and coking coals are especially strong and the supply of the favorite qualities rather limited. Industrial consumption is unusually large, and the railroads and utilities are also taking abnormally large quantities. The bunker trade is still very active at the Southern ports, the mines usually supplying this class of business being pressed to fill requirements along with their other heavy business for washed coal.

Domestic coal is still moving very well and most operations have orders to carry them over the holidays. Inquiry is continuing good, but due to lack of protracted cold weather, consumption is not especially heavy and demand for prompt movement is not quite so insistent at it has been.

Quotations are without any material change from a week ago, the strong position of the market maintaining a firm schedule of prices.

Carriers in the Birmingham district have maintained a fair car supply for all operations of late and there has been little if any loss of time on this account. The district is now producing around 425,000 tons per week.

### Hard-Coal Trade Now a Waiting Game

With the exception of some cargoes of pea and No. 1 buckwheat, with occasional tonnages of rice, anthracite is practically out of the New York market. Some boats loaded with pea and buckwheat are afloat in the harbor, but the tonnage is not considered large. Buyers also are able to pick up reclaimed buckwheat at various prices. Some retailers continue to offer egg, stove and chestnut at around \$23.50 per ton, but this supply is growing smaller.

Coke is gaining in popularity and with few exceptions retailers report a growing demand for it. Dealers are not increasing their yard supplies to any great extent. Like their customers, they are playing a waiting game and are buying according to their needs. Coke in stove and egg sizes was quoted at tidewater last week at \$10@10.50 alongside.

Pea continues to be quoted at \$16@16.50 alongside and No. 1 buckwheat at \$8@8.75 alongside.

At Philadelphia retail coal men are gradually coming back for fuel since the recent peace conferences proved abortive. Buying had been almost eliminated by the first conference and it is still comparatively dull, owing to mild weather. The price of byproduct coke has once more declined and it can now be purchased at \$10 and under delivered on tracks in the city. While there is no real activity in Connellsville coke, there is an improvement over last week with prices ranging \$5.50@6.50, depending on sizing, etc.

Baltimore looks on the anthracite strike with indifference. Dealers state that prepared sizes of soft coal are accepted as substitutes without particular complaint, and that the public is apparently getting pretty well used to burning soft coal. Not a few dealers believe that many of their customers will not return to hard coal, even at prices existing last fall, as long as they can get prepared sizes of bituminous at considerably lower prices.

At Buffalo the fine sizes of anthracite are about gone. It is reported that in Canada, where more anthracite and more substitutes were bought than in Buffalo, the straight anthracite held by the dealers is about gone. There is no small amount in cellars yet, but plenty of the consumers, both here and there, will begin to run out now and they must buy something. The smokeless producers and dealers say they can meet the issue. Coke brings \$12 at the curb and is not as plentiful as it was, when it used to sell as low as \$9, but smokeless can be had yet for \$6.50.

### Connellsville Coke Market Slightly Weaker

In the Connellsville coke market demand from the East for prepared coke has undergone little change in the past few weeks; it absorbs the tonnage offered fairly well at fair differentials above run-of-oven coke—generally from \$1 to \$1.50, depending on character of preparation.

Just what proportion of the total of 48-hour coke produced by merchant ovens is prepared cannot be estimated, but there is quite a tonnage left of run-of-oven coke after contract requirements have been met, and this coke has been pressing on the market for weeks, forcing prices down and down, there being approximately a 50c. decline in the past week.

This surplus coke has now also exerted a back-pressure on production, merchant-oven output last week as reported by the *Courier* being the lowest in six weeks, although the percentage in decline was small. Some ovens banked, others have been drawing less times per week.

In blast furnace sized lots coke is now available at \$3.50, but by no means from all operators. Up to \$3.75 probably is obtained on small lots to miscellaneous consumers. The market is quotable at \$3.50@3.75, against \$4 a week ago, but then the market was decidedly weak at \$4, which was largely a nominal quotation.

It is understood that blast furnaces have been offered first-quarter contracts at as low as \$4.25, but apparently this does not interest them. They find little demand for pig iron, and in any event they would presumably do better to buy for January only, since whatever demand there may be from the East probably will be off for February and March.

Spot foundry coke has weakened in sympathy with furnace coke and is now quotable at \$4.75@5.25.

### Car Loadings, Surpluses and Shortages

	Cars Loaded	
	All Cars	Coal Cars
Week ended Nov. 28, 1925	923,213	172,279
Previous week	1,057,674	189,182
Week ended Nov. 29, 1924	879,131	172,615
	Surplus Cars	
	All Cars	Coal Cars
Nov. 30, 1925	136,796	43,658
Nov. 22, 1925	124,818	37,007
Nov. 30, 1924	183,914	82,819
	Car Shortage	
	All Cars	Coal Cars
Nov. 30, 1925	.....	.....
Nov. 22, 1925	.....	.....
Nov. 30, 1924	.....	.....



## Foreign Market And Export News

### British Shipments and Bookings Gain Steadily; Production on Upgrade

Increasing animation is apparent in the British coal market. The improvement has made further headway in the past week, and with steady bookings running well ahead, shipments are on an expanding scale. Chartering is brisk—an indication that activity will continue—while production is on the upgrade, with more regular work at the pits. Contractors are making early arrangements to ship the unexpired portion of yearly contracts and are showing readiness to book up to next April, beyond which points both buyers and sellers are reluctant to operate. Several parcels of second Admiralty large have been sold over the next five months, but big business on forward account is still lacking. Despite the fall in the franc, inquiries from France are improving, due to

activity in the metal trades and the offering of extended credits by exporters. Italy is buying on an improved scale and the depots are active.

The prompt position in the local coal market at Newcastle-on-Tyne has been comparatively easy, and buyers with prompt tonnage have been able to obtain coals at prices much below current quotations. This has been due to the scarcity of tonnage since the bad weather set in. Forward business, however, is still indicating firm prices, and contract business shows that buyers are less averse to paying the quotations, especially for gas coals. Coking coals have enjoyed a very good demand, especially for home furnaces, and the cokes are all very firm, especially gas coke, which is better than at any time during the past year.

Output by British collieries during the week ended Nov. 28, according to a special cable to *Coal Age*, totaled 5,185,000 gross tons, compared with 4,870,000 tons in the preceding week.

### Trade Takes Quiet Turn At Hampton Roads

Comparatively little demand for coal was in evidence last week at Hampton Roads, warm weather apparently contributing to the laxity of the market. Foreign business was holding its own, but trade with New England was somewhat below normal. Domestic trade locally was holding up well, with continued high prices for prepared soft coal, and with the supply of anthracite diminishing rapidly. The tone of the market generally was quiet.

### Better Industrial and Domestic Demand in French Market

In the French coal market there has been a slight improvement in demand for industrial coals and a more active call by consumers of domestic coals.

British offers of flaming coals d.c.b. in Paris have been made at 7 fr. less than French prices, though the pound is at 124@125 fr. and over. The insistence of Belgium producers of sized coals that they be paid in Belgian francs, which arrangement was to become effective Dec. 1, will have a drastic effect on prices. Discussions between the German Kohlensyndikat

and the French Government are not expected to reach a decision before the end of the year.

Deliveries of indemnity fuels from the Ruhr during the first fourteen days of November included 20,800 tons of coal, 9,100 tons of coke and 10,900 tons of lignite briquets. During the first twenty-four days of November the O. R. C. A. received from the Ruhr 166,564 tons of coke. Prices are unchanged.

### Belgian Outlook Unpromising

There is little change in the situation in the Belgian industrial coal market; demand remains moderate with stocks practically at the old level and output restricted. Prospects are not very encouraging, although the iron works of the Charleroi district probably will resume work soon.

Foreign competition is keener than ever and prices are steadily declining. The situation is most serious in the Borinage, the other districts reflecting a slightly improving tendency.

With the termination of the period of the 5 per cent increase on wages a good many coal owners seem to have made up their minds to refuse to pay it any longer, because, in spite of the meas-

ures taken by the Belgian Government, their commercial situation has not in the least improved. A complete break between the owners and their men is not expected, however, as it is likely that a new formula, based on the fluctuations of coal prices, will be considered.

No fresh development is noted as regards briquets, ovoids and coke, except an increase of stocks.

### U. S. Fuel Imports in October (In Gross Tons)

	1924	1925
Anthracite.....	6,289	15,391
Bituminous coal, shale, lignite...	9,626	13,840
Bituminous coal and slack.....	21,882	51,979
From:		
United Kingdom.....	900	7,722
Canada.....	21,882	55,305
Japan.....		230
Australia.....	8,702	2,502
Other countries.....	24	60
Coke.....	6,091	12,461

### Export Clearances, Week Ended Dec. 12, 1925

FROM HAMPTON ROADS	
	Tons
For Cuba:	
Br. Str. Pentraeth, for Havana.....	3,021
Nor. Str. Certo, for Havana.....	3,272
For Brazil:	
Br. Str. Homecliff, for Rio de Janeiro	6,255
Br. Str. Quebec City, for Santos....	6,701
Br. Str. Campus, for Rio de Janeiro..	5,164
For Peru:	
Br. Str. Bellalisa, for Callao.....	6,313
For Argentina:	
Ital. Str. Maria Enrica, for Buenos	
Aires .....	9,776
For French West Indies:	
Jap. Str. Egypt Maru, for Fort de	
France .....	7,275
For West Africa:	
Ital. Str. Nasco, for Dakar.....	7,154
For Dutch West Indies:	
Br. Str. Nile, for Curacao.....	8,185
For Mexico:	
Nor. Str. Wagland, for Vera Cruz...	2,861

### Hampton Roads Coal Dumpings\*

(In Gross Tons)	Dec. 3	Dec. 10
N. & W. Piers, Lamberts Pt.:		
Tons dumped for week...	168,326	137,574
Virginian Piers, Sewalls Pt.:		
Tons dumped for week...	101,852	56,321
C. & O. Piers, Newport News:		
Tons dumped for week...	144,302	107,496

\*Data on cars on hand, tonnage on hand and tonnage waiting withheld due to shippers' protest.

### Pier and Bunker Prices, Gross Tons

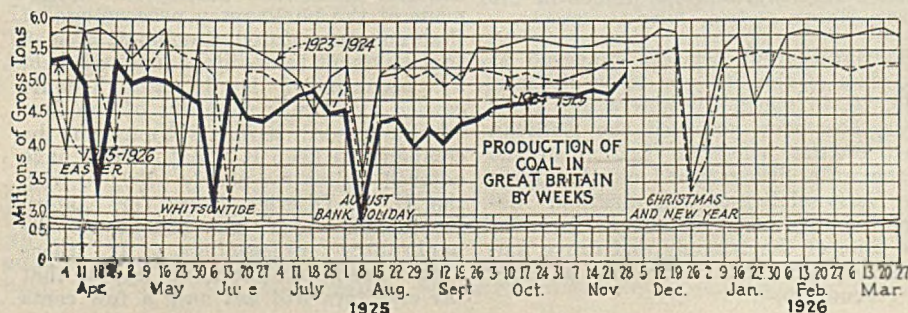
PIERS			
	Dec. 5		Dec. 12†
Pool 1, New York....	\$5.75@	\$6.00	\$5.75@ \$6.00
Pool 9, New York....	5.00@	5.30	5.10@ 5.30
Pool 10, New York....	4.75@	5.10	4.80@ 5.15
Pool 11, New York....	4.55@	4.70	4.55@ 4.75
Pool 9, Philadelphia..	5.05@	5.30	5.05@ 5.30
Pool 10, Philadelphia..	4.80@	5.10	4.80@ 5.10
Pool 11, Philadelphia..	4.50@	4.75	4.50@ 4.75
Pool 1, Hamp. Roads.		4.90	5.00@ 5.25
Pool 2, Hamp. Roads.	4.75@	4.90	4.75@ 4.90
Pools 5-6-7, Hamp. Rds.		4.75	4.60

BUNKERS				
Pool 1, New York....	\$6.00@	\$6.25	\$6.00@	\$6.25
Pool 9, New York....	5.25@	5.55	5.35@	5.55
Pool 10, New York....	5.00@	5.25	5.05@	5.40
Pool 11, New York....	4.80@	4.95	4.80@	5.00
Pool 9, Philadelphia..	5.30@	5.55	5.30@	5.55
Pool 10, Philadelphia..	5.10@	5.35	5.10@	5.35
Pool 11, Philadelphia..	4.75@	5.00	4.75@	5.00
Pool 1, Hamp. Roads.	5.00		5.00@	5.25
Pool 2, Hamp. Roads.	4.75@	4.90	4.75@	4.90
Pools 5-6-7, Hamp. Rds.	4.75		4.60	

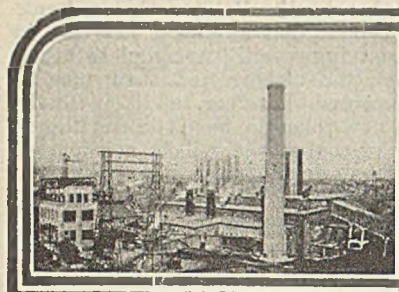
### Current Quotations British Coal f.o.b. Port, Gross Tons

Quotations by Cable to <i>Coal Age</i>		
Cardiff:	Dec. 5	Dec. 12†
Admiralty, large....	23s. @ 23s. 6d.	21s. @ 22s. 6d.
Steam smalls.....	11s. 6d.	13s. 6d.
Newcastle:		
Best steams.....	15s.	17s. 6d. @ 18s.
Best gas.....	16s. 3d. @ 17s. 9d.	16s. 3d.
Best bunkers.....	15s. @ 16s.	15s.

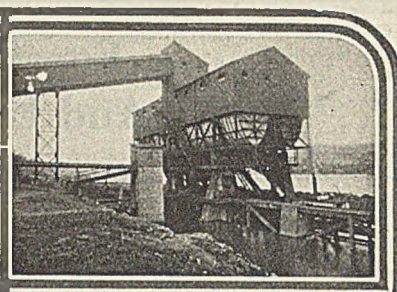
† Advances over previous week shown in heavy type; declines in *italics*.







## News Items From Field and Trade



### ALABAMA

Statistics compiled by the Alabama Mining Institute indicate a total coal production for 1925 in the Alabama field of between 19,750,000 and 20,000,000 net tons. The output for the first eleven months of this year, according to these estimated figures, totaled 18,053,000 against 17,984,600 tons for the same period of last year. With a strong market now prevailing it is highly probable that the 20,000,000 figure will be reached. Output in 1924 was 19,615,931 tons. No records are kept on coke production from month to month but the output for the year probably will be around 4,750,000 tons.

### ARKANSAS

U. S. marshals have been ordered posted at the mine of the Bernice Anthracite Coal Co., near Russellville, to protect the property of the company from striking members of District No. 21, United Mine Workers, and their sympathizers. U. S. District Judge Jacob Trieber several weeks ago issued a temporary injunction restraining the strikers and their sympathizers from interfering with operation of the mines of the company, which is operating under the wage scale of 1917. One of the charges in the petition for the appointment of the federal guards was that the peace officers of Russellville have demanded \$57.60 a day for their services.

### COLORADO

Wallace D. Bowie, of Delta County, has been appointed by Governor Morley as a member of the state board of examiners of coal mines, to take office at once. Mr. Bowie will serve until the third Tuesday of January, 1929, and will take the place on the board left vacant by the recent resignation of Thomas Allen.

The Kemmerer Coal Co. has been given a deed by P. J. Quealey for the property known as the International Fuel Co. and other coal lands with the exception of the Wadge vein, containing about 30 acres. The consideration was stated as \$52,297. The Kemmerer Coal Co. later conveyed the property to the Uintah Improvement Co.

R. C. Graham recently leased the Black Diamond coal mine from J. J. Donnelly, owner of this coal property. This is one of the best mines in the Meeker section and has always been a big producer. Mr. Graham has complied with the new mining law requirements and the mine is now producing coal.

### ILLINOIS

Confirmation of the sale of the stock of the Southern Gem Coal Corp. was postponed in the U. S. District Court at East St. Louis, Dec. 8. Bruce A. Campbell, counsel for creditors of the company, interposed a motion asking for the continuance. Nelson Layman, of Duquoin, representing the receivers, stated that delay in confirmation of the sale might cause deterioration of the market value of the property. On Nov. 27, at Benton, W. A. Brewerton, of the Brewerton Coal Co., purchased the stock of the Southern Gem company for \$100,000 cash and agreed to assume claims totaling \$1,650,000.

Headquarters of the Illinois Mine Workers at Springfield announced that the Illinois convention called for March, 1926, had been postponed until March, 1927, by a vote of the membership. Only 12 locals with a membership of 1,693 members opposed the postponement; 78 locals with 30,655 members voted specific approval and 238 locals gave tacit consent by taking no action at all.

The Madison Coal Co. will electrify mine No. 6, at Auburn.

The mine commonly known as the "Scratch Back" mine, at Cartersville, owned by the Cartersville Black Diamond Coal Co., recently suffered a severe loss when the entire top works was destroyed by fire.

The Majestic Mine, at Duquoin, owned by the Crerar-Clinch interests of Chicago, has made a record for steady production, having worked continuously since Oct. 1.

### INDIANA

The coal mining industry in Indiana is looking better, according to Albert Dally, assistant inspector of mines and mining of the state. Four mines in the Boonville district that had been idle for more than two years have reopened recently, and two mines in the Terre Haute district have resumed.

Recognition of services rendered at the time of the Sullivan mine disaster, Feb. 20, in which 51 miners lost their lives, has been accorded the Sullivan Post of the American Legion in the shape of a lithographed citation from the National Legion organization. Legion members turned out in force at the time of the tragedy and drove ambulances, directed traffic and assisted in rescue work.

### KANSAS

No. 2 Katy mine, near South Radley, leased by James Price and Joe Lafayette from the Mayer Coal Co., is being cleaned up, and mining will start soon with from 75 to 100 men employed.

Following an explosion, Dec. 2, in the Wilbert & Schrieb mine in the southeastern Kansas field, James Sherwood, state mine inspector, issued a warning, Dec. 4, to all miners of the district to observe safety precautions more closely. The inspector found the Wilbert & Schrieb explosion was the result of using too much powder, tamped with coal drillings, and recommended the discharge of two miners. "Shots must be tamped with clay or some non-combustible material," he warned. "Mines also must be kept properly sprinkled or rock dusted and cleaned." Two entries on the south side of the mine were badly damaged, with doors and stoppings torn away. The north side of the mine, which had been rock dusted, was not disturbed. The mine reopened Dec. 7.

### KENTUCKY

Voluntary bankruptcy proceedings were filed in federal court at Louisville, Dec. 10, by the D. B. Gore Mining Co., operating a strip mine at Providence. The company's home office is in Birmingham, where its vice-president, David B. Gore, who signed the petition, resides. It lists liabilities of \$127,243.70 and assets of \$258,671.35. The latter include a number of so-called "dead" assets, such as insurance policies. Machinery makes up most of the assets, one stripper being listed at \$103,397. The company does not own coal land, but has been operating on leases in western Kentucky for five or six years.

The Gorman-Pursiful Coal Co., Whitesburg, is planning the erection of a combined club house and hotel.

W. L. Douglass, who with John Richey, was the receiver for Jewett, Bigelow & Brooks during the settlement of the bankruptcy proceedings of that concern, stated Cincinnati Dec. 8 that payment to creditors has been held up because of legal entanglements caused by former members of the firm who advanced personal sums to the company to keep it afloat. They have entered claims for nearly \$700,000 with the U. S. District Court for eastern Kentucky, which had charge of the bankruptcy proceedings. If these claims are allowed it would appear that the creditors will get only a few cents



on the dollar. Until these suits are heard the money derived from the sales of the mines and other properties will be held. These amount to some \$300,000.

Sixty-two employees of the Colonial Coal & Coke Co., at Prestonsburg, have joined with the executives of that concern in an arrangement which provides protection for them as a group through an insurance policy issued by the Prudential Insurance Co. Under the terms of the policy each employee who has more than one month of service will be protected for \$1,000. The premiums will be paid on the contributory plan, with the workers sharing in the cost of the protection.

The three southeastern Kentucky coal associations have formulated a committee so that contact can be maintained with the American Railway Association for their concerted benefit. John Callahan of the Southern Coal & Coke Co., Cincinnati will represent the Southern Appalachian group; Prentice Burlingham, the Hazard operators, and R. C. Tway, of Louisville, the Harlan Coal Operators' Association.

The Dawson Daylight Coal Co., Dawson Springs, is now driving shaft mines in addition to its strip operations, but so far hasn't gotten the underground production up to any real loading figure. The operations are fairly well separated as to distance, but load over the same tippie.

The Stevens Branch Coal Co., of Floyd County, and J. H. Briscoe, receiver for the company, were made defendants in an involuntary bankruptcy petition filed in the U. S. District Court at Covington, Dec. 2, claims aggregating \$46,682.02. It is alleged that an act of bankruptcy was committed by defendant company when while insolvent it attempted to convey to Lee Stone, of Floyd County, its entire property and assets; that it owes in excess of \$100,000, and is unable to meet its obligations. The plaintiffs asked that the court discharge the receiver and order the property sold.

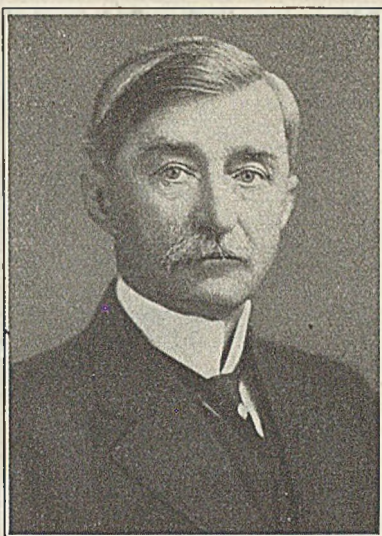
The Cosmos Coal Co., of which W. J. Lester is general manager, has leased the property of the Kentucky Washed Coal Co., at Nonell, a strip operation, and will soon have it in operation.

## MASSACHUSETTS

D. B. Goode, formerly of the Massachusetts Chamber of Commerce, is executive secretary of the Boston Coal Service Bureau of the Smokeless Coal Operators' Association of West Virginia. He is assisted by Henry C. Eaton, a graduate of Massachusetts Institute of Technology, as combustion engineer. They have offices in the Boston Chamber of Commerce building.

## MISSOURI

The St. Louis Coal Club gave its annual smoker and vaudeville entertainment on Dec. 14, at the American Annex Hotel. Among the out-of-town guests were Ray D. Kelly, of Springfield, Mo., and W. R. Feuguay, St.



George Bryant McCormack

Long prominent as a coal operator, industrial and financial leader in Alabama, Mr. McCormack died in Birmingham Nov. 28, of heart failure, aged 66. Born in Platin, Mo., he removed to Birmingham in 1880 with the Tennessee Coal, Iron & Railroad Co., becoming general manager of the company in the nineties. In 1901 Mr. McCormack resigned his position with the Tennessee company and with Erskine Ramsay and other associates, organized the Pratt Coal Co. A number of other smaller operations were bought up from time to time and finally merged under the name of the Pratt Consolidated Coal Co., Mr. McCormack being president of this corporation until a few days ago, when he retired from the executive position and was succeeded by his son, Carr McCormack. The Pratt Consolidated Coal Co. expanded its operations rapidly and when merged with the Alabama By-Products Corporation in 1924 was one of the largest producers of commercial and domestic coal in the Alabama field. When the properties of the above corporations were consolidated Mr. McCormack was made chairman of the board of directors of the Alabama By-Products Corporation. He also was prominent in banking circles. He leaves a wife, four sons and two daughters.

Joseph, Mo., president and commissioner of the Midwest Retail Coal Association.

## NEW YORK

The Buffalo City Council has passed an ordinance providing that all coal dealers shall furnish their customers with tickets stating the sort of coal delivered, together with the percentage of volatile matter in it. With the amount of smoke the city factories are allowed to belch out this regulation seems quite gratuitous.

## OHIO

One hundred and fifty miners who went back to work Dec. 11 at the Fort Pitt mine of the Central Coal Co., located at Dilles Bottom, just across the river from Moundsville, W. Va., were laid off the next day, word being received from the general office to close the mine until further notice.

The Ohio school of first-aid instruction for deputy mine inspectors ended Dec. 11 after a five-day session at Cambridge. An address was delivered by Francis Feehan, of the U. S. Bureau of Mines at Pittsburgh. He urged more accident-prevention work in Ohio mines,

saying that only West Virginia has a higher fatality rate than Ohio in the Northern group of states between the Mississippi and the Alleghenies, western Pennsylvania having cut its rate to 2.91 per 1,000 miners employed, in contrast with 4.78 for Ohio and 6.56 for West Virginia.

The Essex Coal Co., of Columbus, has suspended operations at the Lost Run and Jacksonville mines, in the Hocking Valley, pending a better demand for domestic sizes. The three mines of the Stalter-Essex Coal Co. in the Pomeroy Bend field are being operated to full capacity.

Dumpings on the docks of the Hocking Valley Ry. at Toledo during the week ending Dec. 9 totaled 85,736 tons, as compared with 116,725 tons in the corresponding week last year. The total dumpings on the docks for the season were 8,387,416 tons as compared with 6,894,082 tons for the corresponding period last season. According to dock officials loading at the docks will continue for some time owing to the open winter.

Richard McGee, of Neffs, has been named deputy mine inspector for Belmont County, succeeding Thomas P. Williams, who resigned.

Mine owners in the Nelsonville field announce that more of the mines in that section are resuming operations, after an idleness of months in many cases. About 140 cars of coal are being moved from the Nelsonville field each working day.

Hatton, Brown & Co., Inc., is the name of an Ohio corporation, chartered recently with an authorized capital of \$500,000 to take over all of the interests controlled by that company. The mines operated and handled under sales contracts are located in Virginia, West Virginia and Kentucky and the yearly capacity is in excess of 1,500,000 tons. The former corporation, under the same name, was a Virginia concern and acted as a holding company for the Blue Ridge Coal Co., of Virginia, and the Peerless Elkhorn Coal Co., of Kentucky. In addition the company has interests in the West Virginia field. The incorporators of the new corporation are F. G. Hatton, W. M. Brown, George F. Schwartz, C. R. Elerick and W. E. McIntire. The new company has been organized by the election of the officers of the former company, consisting of F. G. Hatton, president; W. M. Brown, vice-president and treasurer; George F. Schwartz, vice-president and secretary, and W. H. Marshall, Eastern manager. Headquarters will remain in Columbus, with a branch office in Roanoke, Va.

## PENNSYLVANIA

Edward Scott, of Scranton, has purchased from the Erie R.R. for a consideration said to be \$70,000 the coal and other material used in building the old Delaware & Hudson Canal at Hawley. The purchase includes the baseball park at Hawley and the basin of the old canal. Reports have it that in 1897 a large consignment of coal was sunk



in this basin and Mr. Scott is said to have made arrangements to reclaim it. There is to be a washery erected in Hawley by the new owner. Mr. Scott has been engaged in the coal business on an independent basis for several years.

The American Coke & Fuel Co. has put out sixty ovens at its American No. 2 (Sunshine) plant, at Martin, leaving eighty ovens in operation at this plant.

The Baton Coal & Coke Co., First National Bank Building, Pittsburgh, has taken over the coal mine of the Shengango Furnace Co., near Ligonier, on the Ligonier Valley R.R.

Pennsylvania Coal & Coke Corporation and subsidiaries report October net income of \$4,339 after depreciation and depletion, but before federal taxes, against a deficit of \$40,359 in October, 1924. Deficit for first ten months of 1925 totaled \$453,194, comparing with \$329,015 in same period of the previous year.

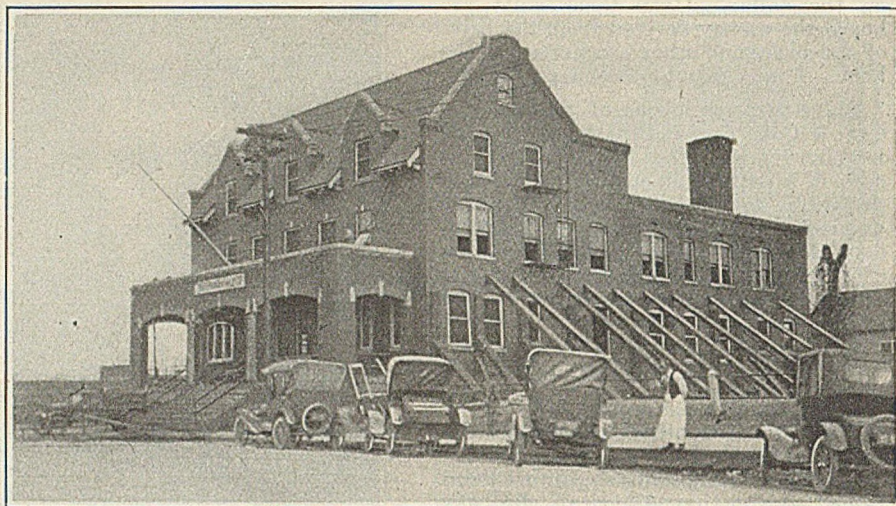
The Franklin National Bank of Philadelphia and J. A. Harris, also of Philadelphia, are seeking action against the Kennedy Coal & Coke Co. and S. H. Cauffiel, of Johnstown, in the Cambria County courts, to protect their alleged interests in the coal company property. Attorney H. S. Endsley, of Johnstown, has been agreed upon as temporary receiver for the company until a hearing on the merits of the case is had. It is claimed that calls for money have been made which threaten the minority stockholders, that the coal lands are not being developed and that all the stock has been made out to S. H. Cauffiel as trustee, who, it is alleged, is serving without bond.

The Superior Coal Co. has reopened its mine at Superior after being down for 18 months. This is in the Pittsburgh district. The Ford Colliery mine No. 3, at Curtisville, is being fitted with a new cage, and the reopening of this mine is expected. The Republic Iron & Steel Co. mine at Rural Ridge has been started on part time. All the operators in the Russellton-Curtisville district are optimistic, and miners who had left the district are returning.

Sterling Mine No. 6, at Bakerstown, has resumed operations. This is one of the big collieries in northern Cambria County and employs several hundred men.

Frank L. ("Dutch") Schwab, chosen an all-American football player twice by Walter Camp when he was at Lafayette College, has accepted a position as superintendent of the Graf Coal Co. operations at Blairsville.

A statement which will show the amount of coal mined in the city of Scranton during the year is in course of preparation by Frank B. Davenport and Frank Gaffney, Scranton City mine-cave engineers. The engineers will turn their figures over to the city board of assessors so that the tonnage removed since the first of the year can be deducted from the assessable coal



Oklahoma Coal Mine Causes Y. M. C. A. Building to Topple

The use of heavy planks has been necessary to prevent the collapse of the Railroad Men's Y. M. C. A. building, at Halleyville, Okla. The old Halley-Ola coal mine, which underlies the townsite of Halleyville, is believed to have caused the earth to sink. The mine was abandoned years ago and the company is now working an extension of the same coal seam several miles southwest of the original workings. The building was abandoned early this year, when large cracks were discovered in the walls and the cause revealed.

land in the city in the 1926 tax duplicate. Because of the strike which halted operations on Sept. 1 the tonnage taken out this year is not expected to be as large as in normal years, although the "speeding up" policy followed in the months directly preceding the suspension will offset to a certain extent the production decrease.

The Irwin Gas Coal Co., of Greensburg, has contracted with the Roberts & Schaefer Co., Chicago, for a quick-return oscillating - screen equipped tippie.

R. B. Hays Coal Co., of Maconetown, has contracted with the Roberts & Schaefer Co. for the installation of coal conveying and quick-return oscillating screen equipment for its No. 2 Mine at Uniontown.

Dr. W. Frank Beck, one of central Pennsylvania's foremost coal operators, has entered the race for the Republican nomination for State Senator from the district composed of Blair and Huntingdon counties. He will be opposed by the present incumbent, Plymouth W. Snyder. Dr. Beck is a resident of Lakemont, a suburb of Altoona. He is president of the Priscilla Coal & Coke Co. and secretary-treasurer of the Jefferson Ridge, Campbell Ridge and the Thomas Mills Coal companies. Dr. Beck formerly was a practicing physician and is prominently identified with the Grange, having farming interests as well as coal interests.

The Trumbull Coal Co., of Cleveland, has contracted with the Roberts & Schaefer Co. for conveying and quick-return oscillating screen equipment for its tippie at Clarksville.

The Pittsburgh Coal Co. has resigned from membership in the Pittsburgh Coal Producers' Association, assigning as a reason "the general condition of the coal situation." Its operation of five mines on the November, 1917, scale would not necessitate its withdrawal.

It is said that the company will continue to support the movement for a lower Pittsburgh district rate on lake coal and that some members of the association have been unwilling to support that program.

The H. C. Frick Coke Co. is still adding ovens to its active list, having fired 400 more at different plants last week.

With the recent opening of the Conifer mine of the Allegheny River Coal Co., better known as the Pittsburgh & Shawmut Coal Co., from its sales auxiliary, all the mines of this company are working again at some rate.

The Pittsburgh Terminal Coal Co., Pittsburgh, has contracted with the Roberts & Schaefer Co. for the construction of local trade bins at its Castle Shannon mine.

Shipments of bituminous coal by the Reading Company during October, 1925, totaled 1,867,412 gross tons, compared with 1,617,084 tons in the corresponding month of 1924.

## UTAH

R. M. Magraw, former general superintendent for the United States Fuel Co., has been appointed to a similar position with the Brady-Warner Coal Corp. of West Virginia, with headquarters in Fairmont. Mr. Magraw came West in 1905 after beginning his career in West Virginia.

The Utah Industrial Commission has handed down a ruling that a laborer engaged in unloading coal from a railroad car under the form of contract adopted for this work by coal dealers in Salt Lake City is not an employee of a coal company within the meaning of the state workmen's compensation law. He is an independent contractor. It was pointed out that under the contract which the companies have adopted



the man unloading the coal can engage help if he desires and is not himself under the control of the coal company so long as he completes the contract on time.

## VIRGINIA

The Clinchfield Coal Corporation has declared a dividend of 50c. on the common stock of the company, bringing total payments for 1925 on the common stock up to \$3 per share.

Coal output in the Virginia field recently has reached 243,884 tons a week, but of a total of 153 railroad tippie mines in the field, 81 are active and 72 idle. Many of the idle mines, however, are small. Production of coke has materially increased but is still considerably behind that of 1923 and 1924.

## WEST VIRGINIA

The Paisley interests have obtained a lease on the Benwood mine of the Wheeling Steel Corporation and propose to improve and extend its facilities until the present capacity is doubled. This property includes 5,000 acres of good coal land. The contract for the steel corporation calls for delivery at the rate of 200,000 tons per year for the use of the Benwood mills. It is expected that a like tonnage will be marketed elsewhere via rail and river. The large expansion of this property, both in the opening of new shafts and the installation of improved machinery, probably will make the mine the largest single producing unit working the Pittsburgh No. 8 seam.

Federal mine No. 1 of the New England Fuel & Transportation Co. is about one-third rock-dusted. About eight miles of haulageways, aircourses,

etc., are so treated. It is planned to complete the work by Feb. 1. This is one of the largest mines in the region.

In opening a new mine at Skelton and establishing a plant at that point, the Elkhorn Piney Coal Mining Co. has let a contract for the construction of a large tippie costing about \$150,000 to the Link Belt Co. It is expected to make this plant among the largest producers in the smokeless field. It will have a daily output of 2,000 tons of prepared sizes of low-volatile coal. One hundred houses and the necessary office and other buildings are also to be constructed at an outlay of approximately \$100,000. Coal will be mined in the Sewell seam, which is about 4 ft. thick at the point where it will be mined. Nut, egg, lump and slack will be produced. The Elkhorn Piney company now operates three mines at Stanaford. Its officers are J. W. Shaeffer, president; Lou Roach, general manager; J. W. Ailstock, general superintendent.

The plant of the West Williamson Coal Co., which has been idle for some time, has been leased by H. T. Williamson to James and Oscar North, well known coal operators and dealers of Portsmouth, Ohio. Work of cleaning up the mine and making necessary repairs to equipment was begun on Nov. 30. Coal is to be mined from the Thacker seam.

W. W. Brewer, of Belington, has been made superintendent of the Chesapeake mine of the Fairmont-Chicago Coal Co., at Barrackville.

A certificate has been issued by the Secretary of State of West Virginia for a reorganization and decrease in the capital stock of the Elk Horn Coal Corporation. Capitalization has been decreased from \$28,600,000 to \$6,600,000.

The Pocahontas Fuel Co. plans to have its large tippie at the new Faraday plant in operation soon. The company has been rushing the steel and cement work. Unofficially it is learned that as many as 50 to 75 cars of coal can be dumped over the tippie in a single day, when the work is completed. Though the tippie is uncompleted, the company is mining coal. About 700 men are now on the payroll at Faraday, part of the force being engaged in building more homes for the miners. This is said to be the biggest mining project ever launched in southern West Virginia.

A rope and button conveyor 825 ft. long will be erected late in January at the mine of the Vera-Pocahontas Coal Co. along the N. & W. Ry. at Iseger, McDowell County, by the Fairmont Mining Machinery Co. The conveyor will carry coal from the top of the mountain to the railroad below.

Announcement has been made by West Virginia University that the short course in coal mining will be held in Mechanical Hall, Morgantown, from June 14 to July 24, inclusive.

Kenna mine of the Clark Coal & Coke Co. resumed operation on a non-union basis in Tunnelton last week.

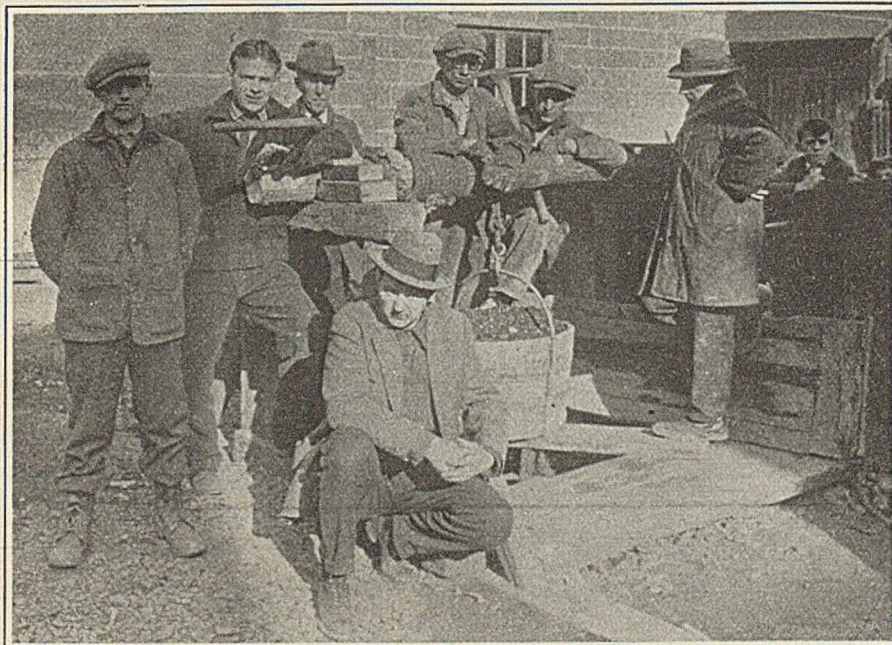
The Consolidation Coal Co. has completed arrangements to purchase from the West Fork Coal Co. the Central mine, in the vicinity of Monongah. The consideration is understood to have been \$10,000. B. F. Evans is president of the West Fork Coal Co.

The Algoma Coal & Coke Co., of Algoma, has contracted with the Roberts & Schafer Co. for a complete Marcus tippie and dry cleaning plant, which will embody the use of the Arms screens and concentrating tables. The plant will be complete with "RandS" shaker loading booms and will make all of the prepared sizes of Pocahontas coal.

M. H. Hall has been appointed general superintendent of the Bartley "wireless" mine of the Pond Creek Pocahontas Co., vice H. C. McKalip, resigned. Mr. Hall formerly was chief engineer of the Pocahontas-New River Division of the Consolidation Coal Co., Coalwood.

H. E. Sperton, H. A. Ambrose, J. T. Hite, F. M. Lynch, all of Ohio, and Stephen Mason, of Fairview, have purchased 1,172 acres of Pittsburgh coal in the Grant district of Wetzel County. Although the consideration was not disclosed, it is understood on good authority that the price paid was around \$50,000. The understanding is that a Pittsburgh concern is negotiating for the purchase of this valuable block of coal with a view to developing it for operation in the near future.

Operations were resumed Dec. 11 with 200 employees at the Richland and McKinleyville mines, owned by the J. C. McKinley interests. Financial difficulties last August forced this mine to discontinue operations, and a sheriff's sale for taxes was averted by a receivership. These matters have since been



Has Coal Mine in His Yard; Not Worried by Strike

Charles B. Zimmerman, a Shamokin (Pa.) merchant, is not particularly upset about the anthracite strike, having struck a good seam of hard coal in his back yard, which will take care of his fuel needs for a while, as he owns the mineral rights under his lot. Mr. Zimmerman is at the right of the group, seeming to be more interested in the coal than the camera.



adjusted. A third mine owned by the company in Marshall County reopened Dec. 14 after being taken over by the Hitchman Coal Co. This mine employs 150 men.

Answering a contempt citation in Circuit Court last week, C. M. Workman, a member of the Executive Board of District 17, United Mine Workers, charged the international organization of the miners with practically destroying the union in West Virginia. Workman had refused to sign a deed turning over district union property to the international organization after the mother union had suspended the autonomy of the district. The court had authorized the board members to make the deed, and Workman, refusing to sign, was charged with contempt.

### WYOMING

H. C. Marchant, general manager of the Rock Springs-Superior Coal Co., has resigned his post with that company to accept a position with the P. J. Quealey coal interests as assistant to President Quealey. He will spend the next few months in Denver, after which he will establish his headquarters at Kemmerer, head offices of the Quealey interests.

### CANADA

In the Criminal Court in Calgary on Dec. 4 five miners convicted of unlawful assembly to compel others to ab-

stain from working in the A B C coal mine at Drumheller last summer were sentenced to one year's imprisonment. Five others convicted on a charge of watching and besetting the mine were sentenced to two months imprisonment.

The Nova Scotia Coal Commission concluded its sittings in Sydney on Dec. 3. The commission has gone to Montreal, arranging to return to Nova Scotia in a few days, when the hearing of evidence will be resumed at Halifax. The chairman stated that he hoped to deliver the findings of the Commission before the end of the month.

The output of coal during November from the mines of the British Empire Steel Corporation totaled 455,000 tons, an average of more than 18,000 tons per day.

Output of coal from Canadian mines during September was 1,191,081 tons, as against 988,824 tons in August, and an average for the month during the five preceding years of 1,312,448 tons. Production in September showed a considerable gain over August in Nova Scotia and Saskatchewan, but slightly lower figures for Alberta, British Columbia and New Brunswick than in the preceding month. Saskatchewan and Nova Scotia were the only provinces which reported a greater output in September than the average for the month in the five preceding years. Imports of coal from the United States and Great Britain in September totaled 1,872,417 tons as compared with 2,177,270 tons in August and the five-year average of 1,660,712 tons.

Production of coke in Canada during October totaled 161,414 tons, an increase of 57 per cent over the 102,882 tons produced in September. The amount of Canadian coal used for coke making rose to 84,390 tons from 48,468 tons in September, and imported coal advanced to 163,060 tons from 109,015 tons in the same time, bringing the total consumption of coal for coke making to 248,060 tons as compared with 157,483 tons in September. Imports of coke in October were 94,213 tons as compared with 78,732 tons in September, while exports were 4,149 tons as compared with 4,268.

### Obituary

Dr. C. B. Lee, 58, of Glen Jean, W. Va., died suddenly Dec. 3, in Philadelphia, where he had gone to see his wife, who was in a hospital. Funeral services at Charleston, W. Va., on Dec. 7, were conducted by Bishop W. L. Gravett. Dr. Lee, who was president of several mining companies in the Loop Creek section of Fayette County, had been prominent for a number of years in the smokeless coal industry of southern West Virginia. He was associated in business with William McKell, Thomas Nichol, Dr. Gory Hogg and other well-known coal leaders of the state.

Edwin O. Parkinson, district manager of the Pocahontas Fuel Co. at Norfolk since the firm's organization 16 years ago, died in New York, Dec. 6, after an illness of two years. Prior to his connection with the coal company he was agent for the Norfolk & Western Ry. He was prominent in business and civic affairs in Norfolk, being a director of the Hampton Roads Maritime Exchange, a director of the Norfolk National Bank, and otherwise prominently identified with business and civic interests.



### An Up-to-Date Commissary of a Coal Mining Company in the Harlan Field of Kentucky

This company store is located at Alva, Harlan County, Ky., and supplies the needs of the coal mining community of the Black Star Coal Co. As can be seen in the il-

lustration, the store is planned with plenty of floor space which affords a good display of provisions and merchandise. The commissary is well lighted and the ceiling

fan and radiator would indicate that the company when erecting this store kept in mind the comfort of its employees who work and trade here.



## Coming Meetings

**Chicago Wholesale Coal Shippers' Association.** Annual meeting, Great Northern Hotel, Chicago, Ill., Jan. 6, 1926. Secretary, G. H. Merryweather, Temple Bldg., Chicago, Ill.

**American Wood Preservers' Association.** Annual meeting, Jan. 26-28, 1926, at Cleveland, Ohio. Secretary, E. J. Stocking, Chicago, Ill.

**Coal Club of Philadelphia.** Annual meeting, Jan. 28, 1926, at the Bellevue-Stratford Hotel, Philadelphia, Pa. Secretary, C. K. Scull, Philadelphia, Pa.

**Northeast Kentucky Coal Association.** Annual meeting, Jan. 28, 1926, at Ventura Hotel, Ashland, Ky. Secretary, C. J. Neekamp, Ashland, Ky.

**American Institute of Electrical Engineers.** Annual convention, Feb. 8-12, 1926, at Engineering Societies Bldg., New York City. Secretary, F. L. Hutchinson, 29 West 39th St., New York City.

**The Rocky Mountain Mining Institute.** Winter meeting, Feb. 23-25, 1926, at Albany Hotel, Denver, Colo. Secretary, Benedict Shubart, Boston Building, Denver, Colo.

## New Companies

**The Grounds Coal Corporation** has been incorporated at Dana, Ind., with 500 shares of no par value capital stock. The company will do a general mining business. The incorporators are Curtis Grounds, Lee Grounds and Wesley S. Harris.

**The Boone County Mining Co.** has been incorporated in Columbia, Mo. by H. H. Hebenstreit, Melvin E. Hebenstreit and others.

**The Northend Coal Co.** was recently chartered in Henrietta, Okla., with a capital stock of \$10,000, by Ira Exley, R. R. Fretwell and others.

**The Zenith Briquet & Mines Corporation,** of Minneapolis, Minn., has published articles of incorporation, with a capital stock of \$100,000. The incorporators are Hanson Evesmith and Ruggles Evesmith, both of Minneapolis, and Mary Wilson Evesmith, of Fargo, N. D. The purpose of the corporation is described as owning and working mineral lands and manufacturing and marketing the products.

**The Blue Jacket Coal Co.,** Covington, Ky., has been incorporated by M. H. McDean, T. J. Bell and Edward Engelkamp.

**The Copley Utilities, Inc.,** 72 Fox Street, Aurora, Ill., was recently incorporated; capital \$10,000 and 183,750 shares of no par value. The company will operate coal mines and distribute natural gas. The following are the incorporators: C. A. Huebner, G. T. Johnson and B. P. Alschuler.

## Industrial Notes

**O. F. Phillips** has been appointed representative in charge of Wilkes-Barre (Pa.) office of the Allis-Chalmers Mfg. Co. Mr. Phillips, who formerly was connected with the Philadelphia office of the company, succeeds Guy V. Woody.

**Herbert E. Smith,** general sales manager of the United States Rubber Co., has been elected a second vice-president of the company in general charge of sales activities of all commodities except tires, succeeding George H. Mayo, retired.

## Recent Patents

**Mine Post;** 1,555,053. John T. Youger, Carmichaels, Pa. Sept. 29, 1925. Filed Nov. 26, 1923; serial No. 677,071.

**Synchronized Rotary Dump;** 1,555,077. Erskine Ramsay, Birmingham, Ala. Sept. 29, 1925. Filed Dec. 15, 1924; serial No. 680,935.

**Attachment for Mining Machines;** 1,555,464. Wm. H. Farne, Williamson, W. Va. Sept. 29, 1925. Filed Nov. 28, 1924; serial No. 752,654.

## New Equipment

### Joy Loading Machine Design Shows Some Improvements

Through continual field experience the Joy Machine Co. recently has improved several details of construction in its loading machine. Thus, in order to obtain an increased capacity, the size and shape of gathering arms have been changed to give a solid manganese steel part with cutting points cast integral therewith instead of the bits employed on the old style of arm. These manganese steel points maintain their sharpness over a considerable length of time without attention, and the danger of losing cutter bits formerly experienced has been entirely eliminated.

Design of the caterpillar sprocket rollers also has been changed from a built-up type, consisting of one inner and one outer half with a plate sprocket bolted between them, to a solid steel roller so designed that accumulations from the caterpillar chain can escape through an opening provided for that purpose. The new design of roller will last almost indefinitely. Solid cast track wheels also have replaced the built-up type formerly used, thus eliminating maintenance expense on this machine part.

As formerly designed, the caterpillar chains operated over two center rollers on each side of the machine. These have now been replaced by a steel supporting shoe giving greater bearing area for the caterpillar chain, thus obviating the buckling and breakage of chains experienced with the former rollers. By this new device, practically all caterpillar chain breakage has been eliminated and the life of these chains has been increased approximately 100 per cent.

In order to obtain a more dependable hydraulic pressure in the system actuating the vertical movement of the gathering head as well as that of the rear conveyor, a new control valve has been designed. This controls all these actions through one mechanism. The new valve is provided with renewable seats and maintenance or replacement

costs, consequently, are greatly decreased.

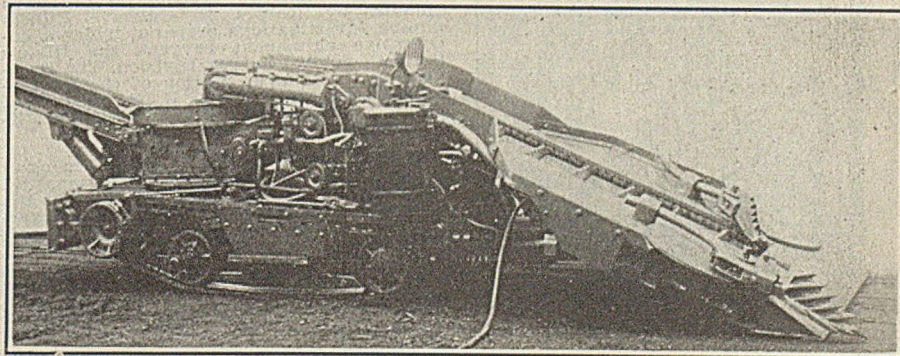
To decrease maintenance costs and improve operation of the pump supplying hydraulic pressure, a ball-bearing drive has been substituted for the former bronze bushing used at this point. Several other details embodied in the machine have been appreciably strengthened through redesign. Field tests extending over several months have proved that the output of the machine has been increased and its maintenance expense reduced by these improvements.

### Small-Size Pneumatic Stoker Pulverizes and Fires

What is known as the Vulcan pneumatic stoker, a coal pulverizing and firing outfit of small size, recently has been placed on the market by A. A. Wickland & Co., of Chicago, Ill. Machines of this kind have now been in operation for slightly over a year and both the pulverizing unit and burner have proved their efficiency in the operation of both steam boilers and reverberatory furnaces.

Advantages claimed for this outfit by the manufacturer include the following: Low initial cost, simplicity, rugged construction, positive mechanical feed, accessibility, low expense for the replacement of wearing parts, three-stage pulverization and a means for positive separation of metal, stone, slate and other heavy materials from the fuel. This machine will pulverize screenings to a fineness of 85 per cent through 200 mesh. The actual fineness of the product depends somewhat upon the structure and dryness of the coal employed. The burner furnished with the pulverizer is designed to produce a thorough mechanical mixture of the powdered fuel and air. This mixture enters the furnace at a low velocity and is held in suspension by the introduction of secondary air through ports within the furnace.

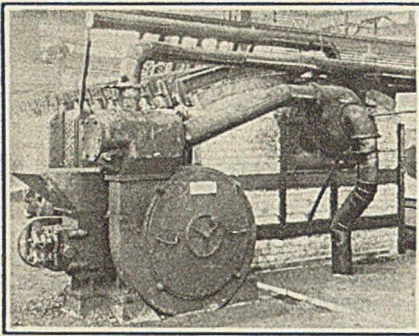
Installations of this stoker have been



Several Details Have Been Improved

Particularly noticable in this side view are the new gathering arms and the shoe supporting the caterpillar chain. The arms are one-piece castings of manganese steel with integral points displacing the pick points of the former design. The chain-supporting shoe eliminates buckling of the chain and affords a larger bearing area.





### Pulverizes Coal and Delivers Direct

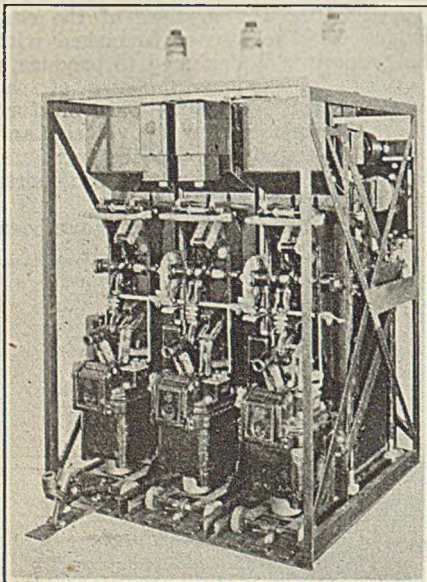
Pulverization takes place only as needed. From the pulverizer the fuel is delivered by an air blast through a short pipe to the furnace. The grinding and delivery equipment may be placed either in front or at the side of the furnace, thus offering a choice of positions. This is a highly advantageous feature in the power plant, particularly if room is at a premium.

made to serve an open hearth furnace, reverberatory furnaces and for operating boilers. The pulverizer has a rated capacity of 2,500 lb. per hour and requires about 19 kw. of electric energy per ton of coal treated per hour. The powdered product is withdrawn from the pulverizer by an air draft and fed almost directly into the furnace. The equipment may, however, be installed either in front of the boiler furnace or at one side, thus giving an excellent choice of location for this machinery within the power plant.

### Eliminates Much Labor On the Job

A housing framework for Type FK-54 oil circuit breakers is now being manufactured by the General Electric Co. It is designed primarily to meet the demand for equipment which can be installed with a minimum of skilled labor.

The three runways of the framework are welded into one solid piece, forming



### Simple Mounting for Solenoid-Operated Breaker

Separate single-pole units can be arranged in groups to make two-, three-, or four-pole switches. The framework is easy to handle and can be quickly set in position.

ing a base plate to which is welded an overhead structure of angles and steel straps. Though the design is simple the framework is of sufficient strength to hold bushings, contacts and runways in permanent alignment. To install the equipment it is merely necessary to run the housing into the cell, secure it with grouting through the base plate and make the usual connections.

The units are securely interlocked to prevent withdrawal of closed breakers, and there is a positive interlock between tripping coils so that the opening of one unit opens the entire circuit. A grounding device on each breaker, consisting of a long blade on the housing which engages a spring clip on the unit, gives grounding protection until the main contacts have been separated 3 in.

All single-pole units can be assembled singly or in two-, three-, or four-pole groups. At 7,500 volts, the ampere capacities are 400, 600, 800, 1,200, 1,600 and 2,000 amp. The interrupting capacity is 10,500 amp. at 7,500 volts for two-, three-, or four-pole operation.

Another advantage of this new housing framework is the ease with which the three top bushings can be located, all time-consuming adjusting being eliminated. The bushings are so arranged that contacts are in perfect alignment. Although these bushings are removed for shipping and cannot be replaced until the housing is in its cell, a system of numbers and dowels enables the user to replace the bushings in the same alignment obtained at the factory. Mounting plates are not interchangeable. Rear bushings are shipped to the customer mounted in position.

## Publications Received

**A Thermodynamic Analysis of Gas-Engine Tests**, by Crandall Z. Rosecrans and George T. Felbeck. Engineering Experiment Station, University of Illinois, Urbana, Ill. Bulletin 150. Pp. 98; 6x9 in.; illustrated. The object of the investigation leading to the publication of this bulletin was to apply a rational thermodynamic analysis of the constant-volume, or Otto, cycle to test results obtained from an engine operating on such a cycle.

**Coal Losses in Illinois**, by C. A. Allen. Illinois Mining Investigations prepared by the U. S. Bureau of Mines, with the collaboration of the Illinois Geological Survey and the Engineering Experiment Station of the University of Illinois, Urbana, Ill. Bulletin 30. Pp. 36; 6x9 in.; illustrated.

**Coal Resources of District III (Western Illinois)**, by Harold E. Culver. Illinois mining investigations prepared under a co-operative agreement between the Illinois State Geological Survey Division, The Engineering Experiment Station of the University of Illinois and the U. S. Bureau of Mines. Bulletin 29. Pp. 128; 6x9 in.; illustrated.

**Coal**, by Edward T. Devine. American Review Service Press, Bloomington, Ill. Pp. 448, 5 x 7 1/2 in.; illustrated. Covers the economic problems of the mining, marketing and consumption of anthracite and soft coal in the United States.

**The Mineral Resources of the Philippine Islands for the Years 1921, 1922 and 1923**. Division of Geology and Mines, Bureau of Science, Manila, P. I. Pp. 63; 7 1/2 x 10 1/2 in.; tables.

**Electrical Exploders for Shot-Firing in Coal Mines**. Safety in Mines Research Board Paper No. 11. H. M. Stationery Office, Kingsway, London, England. Price, 1s. net. A report of a sub-committee of the Explosives in Mines Research Committee. Pp. 31; 6 x 9 1/2 in.; illustrated.

**Coke-Oven Accidents in the United States During the Calendar Year 1924**, by William W. Adams, Bureau of Mines, Washington, D. C. Technical Paper 388. Pp. 38; 6 x 9 in.; tables.

**Misuse of Flame Safety Lamps and Dangers of Mixed Lights**, by L. C. Hsley, Bureau of Mines, Washington, D. C. Miners' Circular 29. Pp. 12; 6 x 9 in.; illustrated. Price 10c. Describes how explosives have been caused by the abuse or misuse of flame safety lamps or by the use of open lights and safety lamps in the same mine.

## Trade Literature

**"Turbolnair" Portable Hoists**. Sullivan Machinery Co., Chicago, Ill. Bulletin No. 76-F. Pp. 15; 6 x 9 in.; illustrated. Describes types HA-3 and HA-2 single drum and type HDA-2 double drum.

**Dimension and Load Bulletin No. 1559**. Hyatt Roller Bearing Co., Newark, N. J. Pp. 13; 8 1/2 x 11 in.; illustrated.

**Raw Water Distilling Plants for Producing Distilled Boiler Feed Make-Up Water**. The Grilcom-Russell Co., 90 West St., New York City. Pp. 39; 6 x 9 in.; illustrated. Fifth edition. Covers the latest developments in evaporator plants for purification of boiler feed make-up.

**Construction of Parallel Wire Cables for Suspension Bridges**. John A. Roebling's Sons Co., Trenton, N. J. Pp. 94; 9 x 12 in.; illustrated. Describes and illustrates the construction of a modern suspension bridge and contains latest data in connection with the fabrication of bridge cables.

**General Electric Co., Schenectady, N. Y.** recently issued the following: Bulletin GEA-133, illustrating the G-E electrically operated flow meters for measuring steam, water, oil, gas, etc. Bulletin GEA-235, describing and illustrating the general principles and advantages of Steam Turbines; sections and steam path diagrams are shown. GEA-178, on Instrument Transformers, containing 52 pp. devoted to the theory and engineering characteristics of transformers used to facilitate the measurement of electrical quantities; the book is well illustrated with photographs, diagrams, charts and tables.

**Comparison of Diesel Engine Principles**. Fairbanks, Morse & Co., Chicago, Ill. Bulletin No. 1020. Pp. 32; 8 1/2 x 11 in.; illustrated. Analyzes and interprets the various factors which influence the design of Diesel engines.

**Splices and Tapes for Rubber Insulated Wires**. The Okonite Co., Passaic, N. J. Pp. 16; 6 x 9 in.; illustrated. Describes the importance of a perfect splice, properties of tape, how to recognize these properties and how to make a perfect splice.

The **"Burden Bearers"** is the title of a booklet published by Standard Steel & Bearings, Inc., Plainville, Conn. It describes the forging of molybdenum steel balls and tells how these balls can be produced with required accuracy and yet be capable of carrying heavy loads for long periods of time.

The Climax Engineering Co., Clinton, Iowa, has issued a series of bulletins covering its various models of engines. Bulletin A describes the "K" series, four-cylinder, 5 x 6 1/2-in. engine. Bulletin B covers the "T" series, four-cylinder, 5 1/2 x 7-in. engine. Bulletin C describes the "R" series, which is made in two models—model "R4U," covering the four-cylinder 6 x 7-in. engine, and model "R6U," covering the six-cylinder 6 x 7-in. engine. Bulletin D covers the "K" and "T" series portable power houses. These bulletins are all illustrated and measure 8 1/2 x 11 in.

The Allis-Chalmers Co., Milwaukee, Wis., has issued Leaflet No. 2082, on **Centrifugal Boiler Feed Pumps**. It contains 7 pp., is 7 1/2 x 10 1/2 in., illustrated.

Electric Service Supplies Co., Philadelphia, Pa., has issued Bulletin No. 216, on **Floodlighting**. The bulletin is well illustrated and includes charts and diagrams.

**Blasting Accessories** is the title of a booklet of 80 pp. issued by E. I. du Pont de Nemours & Co., Wilmington, Del. It gives complete and detailed data on the various accessories needed for firing charges of explosives, with explanations of the best methods of using these accessories.

American Blower Co., Detroit, Mich., has issued the following two bulletins: **Type "D" Mine Fans**, Bulletin No. 3313, and **"Sirocco" Air Washers**, Bulletin No. 1923, describing the manufacture, operation and use of these washers.