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"PRICE-FIXING" IN THE BITUMINOUS COAL INDUSTRY — A LEGAL-ECONOMIC PROBLEM*

STEPHEN P. BURKE**

The coal industry is a war casualty. True, the infections which resulted in its almost complete disability over the past decade were present long before the war and, if unchecked, would in time have run the same course. However, war exposure unquestionably aggravated the disease and hastened the disability. The cripple became a pauper, offering his wares for whatever the public would pay, which was almost invariably less than the true cost. To be sure, the public in a manner made this up to him through private and state charity and latterly through federal relief. Withal, he was scarcely able to subsist, his physical condition naturally showed no improvement, and his morale went steadily lower.

About eighteen months ago, the N. R. A. provided the patient with a pair of crutches in the guise of the Bituminous Coal Code, rented for a period of two years. The patient has shown remarkable improvement in his ability to get about and care for himself, and has become less of a public charge.

Unfortunately, some dispute has arisen among the legal doctors concerning the soundness and propriety of the patient’s crutches. Moreover, it has been intimated that there are constitutional limitations, at least, which make illegal this type of economic locomotion on industry’s highways.

What shall be done with the cripple? Shall he be permitted the use of his crutches for an additional period, or, if possible, he provided with a sturdy set of artificial limbs in the form of stabilizing legislation? Or, on the other hand, shall he, deprived of the means of self help, once again become a mendicant and a public charge? An answer of some sort must be given by June of this year. It is our purpose to discuss certain aspects of the problem confronting the legal doctors.

* (Editor's Note)—This is the first of two articles devoted to the analysis of the economic and legal aspects of price fixing in the bituminous coal industry. The second paper will deal with the legal implications of the subject. It will appear in the December 1935 number of the Quarterly.

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I. Present Status of the Problem

Section I of Article IV of the Bituminous Coal Code states:

"The selling of coal under a fair market price (necessary to carry out the purposes of the National Industrial Recovery Act, to pay the minimum rates herein established and to furnish employment for labor is hereby declared to be an unfair competitive practice and in violation of this Code. In order to determine the fair market price, the agencies shall be established as hereinafter provided, and sales of coal at any time at less than a fair market price determined and published as hereinafter provided, shall create against any person selling at a lower price prima facie presumption that such person is engaged in destructive price cutting and unfair competition."

Section II of Article IV of the Code states that the fair market prices of coal shall be

(a) The minimum prices for the various grades and sizes in the various consuming markets which may be established . . . by marketing agencies.

(b) The minimum prices for the various grades and sizes in the various consuming markets . . . which may be established . . . by the respective Code Authorities . . . for their respective areas . . . ."

Legislative authority for the establishment of all industrial codes is given by the National Industrial Recovery Act. In Section 3(a) under Title I of this Act it is stated

"That such code or codes (of fair competition) are not designed to promote monopolies or to eliminate or repress small enterprises and will not operate to discriminate against them and will tend to effect the policy of this title: Provided that such code or codes shall not permit monopolies or monopolistic practices."

In other words, federal statutes designed to prevent monopolistic practices are at least nominally in effect.

The National Industrial Recovery Act expires two years after the date of its enactment, that is, in June, 1935. Consequently, the entire code structure by which so much of our industry is currently governed will be abolished at that time unless the Congress of the United States re-enacts this statute or provides suitable authorization for the continuation of our present system of codes or some

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1 Approved Sept. 28, 1933.
alternative machinery for the direction of industrial activities of this country.

Repeated and recent expressions of opinion, both on the part of the national administration and on the part of American business, appear to favor a continuation of a national direction or regulation of industry which will give permanence to certain features of the codes which clearly appear to be of social and industrial advantage. Most notable of these are the provisions for the prevention of child labor; for collective bargaining by labor; for minimum wages and maximum hours of labor; and also for the maintenance of protection against unfair competitive practices which have been responsible for certain of the social abuses attributed to our capitalistic system.

The maintenance of minimum fair competitive prices, on the other hand, has received no unanimous support either from industry or from the national administration. American business leaders generally appear to be definitely opposed to a continuation of so-called "price-fixing" provisions.

However, the attitude of business toward price control should not be misconstrued. While objecting to the interference and hampering restrictions of a rigid "price-fixing" which are unnecessary in many industries, business is also aware of the legal insecurity of this policy in the face of the Sherman Act and related legislation. The problem of establishing "fair" prices is as yet unsolved — either technically or legally. On the other hand, business has declared itself in favor of some form of production control. Where this is applicable, it is simply the corollary of price control with many of the technical and at least some of the legal hazards removed, since adequate control of production will in many instances assure stabilization of prices.

If it may be assumed that Congress will enact legislation authorizing the continuation of some form of federal direction or regulation of industry, the problem arises as to whether the practice of establishing minimum fair competitive prices in the coal industry shall remain. If the answer is in the affirmative, the further question arises as to how these prices shall be established. Is the method provided by the present Code satisfactory or does it require extensive modification?

II. Price Control in the Coal Industry

Almost every student of the coal industry, be he operator, employee or observer, who has closely followed the development
of the industry prior and subsequent to the establishment of the Bituminous Coal Code, is convinced that some form of price control, either directly or indirectly through production control, must be retained in this industry. In view of the contrary opinion concerning price control held by industry at large, one is impelled to seek the reason for this unanimity of conviction concerning the coal industry.

The reasons are not abstruse, but simple. The conviction is based upon the knowledge that the abandonment of price control in the bituminous coal industry will be followed by an immediate reversion to the price-cutting, cutthroat competition, and complete demoralization of the industry of the period preceding the Code. It is highly doubtful whether any minimum wage and maximum hour conventions could withstand the onslaught of the economic forces let loose, and, as a consequence, the social evils that attended the practices of the coal industry in recent years would again prevail. And like the possessed in the Scriptures, "the last state of that man becomes worse than the first."

Why is this? The almost trite economic principle of supply and demand is directly responsible. There is of necessity at all times in the coal industry a considerable excess of supply over demand, except in rare instances where, owing to strikes either here or abroad, the production of coal is curtailed or the production of competitive fuels is greatly reduced. Therefore in the absence of any price control or stabilization, the selling price of coal is steadily reduced to and even below the cost of production. No net income is produced by the industry and its complete demoralization ensues.

The coal industry is often criticized by those who are ignorant of its structure for its failure to regulate its production in accord with the demand. The coal industry never over-produces! All the coal that is produced is consumed, for the simple reason that coal is not stored in appreciable quantity. Yet the available supply is always greatly in excess of demand. The reason for this is inherent in the structure of the industry.

*Production v. Capacity.* Since the war period, the capacity of the coal industry has been always greatly in excess of the production. For example, in the period 1923 to 1930, the annual production averaged 525 million tons, whereas the maximum active capacity, assuming all active mines to have operated 308 days per year, averaged about 825 million tons. That is, production was less than sixty-five per cent. of active capacity. But this com-

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comparison is misleading. Let us summarize the actual peak rate of production in any year at all producing fields. This, after all, was the capacity which was necessary to meet the cyclic and seasonal peaks. It is this figure which should be compared with the maximum active capacity. When this is done, it is found that the production rate necessary to meet the peak demand over this same period was only fifteen per cent. less than the maximum active capacity of the industry. Certainly, considering the wide cyclic variation of demand over this period and the inertia of an industry consisting of thousands of separate units with no centralized control, this over-capacity is not excessive.

It is idle to argue that the load factor of the industry should be improved, or that seasonal fluctuations in production should be reduced. One must deal with the situation as it exists. The facts are that over twenty per cent. of bituminous coal produced is used for heating purposes, which are almost negligible in the summer, but are a heavy load in the winter. The industrial demand for coal follows industrial activity, which is usually greater in the winter than in the summer. The facts are that coal is not stored to any appreciable extent, and, therefore, its production must follow very closely the fluctuation in demand. It is true that much could be done through proper coordination to improve the load factor in the industry. Until that is accomplished, however, the problem is unaltered.

*Idle Time Costs and the Capital Ratio.* A second factor promoting a high ratio of supply to demand in the coal industry is the high capital ratio, that is, the ratio of investment to the value of the annual product. In most manufacturing industries, this ratio is approximately one: the investment is about equal to the value of the yearly production. In the case of bituminous coal, this ratio approaches three and, in recent years of low prices, it has approached five. The consequent pressure of interest, amortization and depreciation charges furnishes a driving impetus to the coal

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3 Estimates by various methods of a reasonable investment on which the net return of the coal producing industry in West Virginia should be based, all give results in the vicinity of $400,000,000. The total assessed valuation of the operating coal industry in West Virginia in 1929 was about $155,000,000, which on the basis of average valuation ratios indicates that the so-called "true" value of the industry for property tax purposes is about $300,000,000. Naturally, the total investment that actually has been made in the coal producing industry is doubtless several times this amount.

In 1929, the coal operators in this state realized a total of $95,587,000 for their product. This would indicate an overall capital ratio of between 4 and 5 for the year in question.
operator to sell coal at any price above the minimum out-of-pocket expense during the off-peak periods. Moreover, this urge is aggravated by the high idle time costs of coal mining operations. In most industries, only fixed charges accrue during shut-down periods, but in coal mining, pumping costs, ventilation costs and similar sustained activities augment the high fixed charges during slack periods.

Coal Sizes. A third factor militating against a balance of supply and demand in the coal industry is the problem of slack or fine sizes. For every ton of sized coal that is produced, there is produced approximately two-thirds of a ton of slack coal. Unfortunately, nature’s ratio of production does not comport with the market demand ratio for these various grades, particularly in the winter peak period when lump or sized coal is in greatest demand. Since the slack cannot be stored, it must be sold or given away if the operator is to maintain his production. Not infrequently, the latter recourse has been taken.

Other Factors. But the list is not done. Innumerable other factors unite to swell the coal supply and depress coal prices. Mounting taxes impel the operator to produce his coal before fixed and overhead charges have consumed its value while it remains in the ground. Fly-by-night mining operations, particularly when combined with truck delivery at sub-union wages, bring coal to the market at production-and-transportation costs far below those with which the legitimate operator shipping coal by rail can compete. The volume of such coal may be small, but it is sufficient to destroy an uncontrolled price structure.

The sceptic may ask, "But do we not find similar conditions in other industries? Why then is industry as a whole averse to price fixing?" Similar conditions do exist in other industries, but not in similar combination. Certain of the agricultural commodities which are difficult to store form notable examples of an unbalanced supply-demand ratio. In the case of agriculture, production control, rather than price-fixing, has been the attempted solution. The production of power and gas by public utilities is similar in many respects. The products cannot be stored, load factors are low, fixed charges and taxes are high. Here also one observes the urge to meet high overhead costs through stimulation of off-peak business by extremely low prices. However, the franchise creates an effective monopoly, competition is at a minimum, and the price structure, while flexible and varied to stimulate demand, is nevertheless under strict control.
It is submitted that the evidence is reasonably conclusive. Under "normal" or unrestricted competitive economic conditions, the demand curve of the coal industry necessitates, or at least results in, a load factor of less than seventy per cent., that is, a "standby" capacity of about fifty per cent. of the annual production. Recent and contemplated downward modifications of the eight-hour day will greatly increase the potential "standby" capacity, at least until suitable legal controls or adjustments are devised. Simultaneously numerous factors (of which high capital ratio, high idle-time costs, increasing tax burdens, unsolved technical problems concerning the storage of coal and conversion of slack, are but a few) operate to put a tremendous economic pressure on the operator to improve his load factor at the sacrifice of all but out-of-pocket costs. Under these conditions, a return to a strict competitive economy means a return to a cutthroat economy, and a demoralization of the industry with all its attendant social ills. This is not prophecy based on theory, but fact founded on history!

III. Suggested Remedies

To avert the debacle which would accompany a return to an unrestricted competitive economy, the coal operators have gone on record repeatedly as favoring the continuation of the major purposes of the Bituminous Coal Code, and particularly a retention of federal permission to control prices either directly or indirectly. Organized mine labor, equally alert to the situation, but lacking confidence in its security because of doubts as to the constitutionality of the Code and its enforcement, is currently seeking the same end through the "Guffey Bill". The consumer's case as usual has been poorly presented. Most articulate spokesmen claiming to represent him have apparently been interested only in immediate gains. Having experienced an increase in coal prices under the operation of the Code, they have opposed its continuation and have used the Sherman Anti-Trust Act as a shibboleth of opposition to any restriction of free competition. At any rate, they have presented no fundamental analysis in justification of their position on the stabilization of the industry.

The industry has rightly felt that the socially desirable minimum wage, maximum hour, collective bargaining and similar provisions cannot be maintained without price stability. The various suggestions that have been made by the federal administration, by coal operators, and by labor all seek stabilization through price
control. All involve direct price establishment or production control through allocation of tonnage (and thereby price control), or combinations of both methods.

IV. Criteria of a Satisfactory Solution

In order intelligently to analyze the respective merits of any proposed scheme of production or price control, it is necessary to define the criteria which a satisfactory solution of the problem should fulfill. These may be briefly stated.

1. The consumer’s interests should be safeguarded. That is, the cost of coal to the consumer should be as low as possible, consistent with national economy, social welfare, and enlightened conservation of our natural resources.

2. Labor’s interests should be safeguarded. That is, the opportunity for secure employment, fair wages, and proper working conditions that will promote and maintain social welfare, the advantages of collective bargaining, and the like, must be protected.

3. The opportunity of the producer to receive a reasonable profit on his operations should be assured.

4. The plan should be legally defensible. That is, it should be compatible (if possible) with existing laws. Consequently, monopolistic practices, restraints of trade, and other legally objectionable devices should be avoided.

5. The plan should be technically feasible. That is, it should be possible of application without undue dissatisfaction or hardship, and without extremely cumbersome and highly complicated administrative machinery.

6. Sudden or imminent reallocation of production or of markets, leading to the formation of stranded populations or other social or economic maladjustments, should be avoided.

The last criterion, included as being almost axiomatic, is extremely significant. To comprehend the application to the coal industry of this social requirement, the reader should be aware of the present geographical complexion or structure of the coal producing industry. Major producing fields are far removed from each other and yet compete in the same markets. In some cases, important producing areas are so located that their coals cannot reach any major market without being transported across a competitive producing area. This distribution of major producing areas, like other astonishing aspects of this industry, has been brought about as a result of the interaction of an unrestricted...
competitive economy, combined with the policies of the Commerce Commission in fixing freight rates and with fractious labor relations. The effects of such forces had brought the industry into a chaotic condition long before the advent of the industrial depression. It would be surprising then if, in reaching a condition of economic stability, extensive alterations in the distribution of the producing industry were not inevitable.

Yet, whether or not the present distribution is economically defensible is somewhat beside the point. It exists! Investments have been made, populations have grown up, and entire communities and cities depend for their very existence upon the maintenance of the coal industry in such producing areas. The social and government institutions in these areas depend for their maintenance on revenues from the existing industry. Whatever alterations are made in the economic and geographical structure of the coal industry must be made slowly and with due regard for the rehabilitation of the population and the associated industries which have grown up in such areas. Any sudden alterations in the structure of the industry will create new problems of social maladjustment and stranded population which the slow and as yet unsolved process of rehabilitation will not be able to care for in a reasonable period of time.

Since transportation is the largest single factor entering into the cost of coal to the consumer, it is obvious that those producing areas more distantly located from a given consuming market suffer a competitive disadvantage as compared with those producing areas more adjacently located to the market. This follows because, generally speaking, there will be a freight differential against them due to the increased distance of transportation. Obviously, coal producers in the remote areas must find some means of overcoming or absorbing this handicap if they are to compete successfully.

Prior to 1933, the freight differential was made up by remote operators in part by employing labor at a lower rate than the prevailing wage in the adjacent fields, and in part through mining advantages which geologic conditions afforded them.

In 1933, and early in 1934, under the operation of the Bituminous Coal Code, the wage rates for labor in remote producing areas were increased. At the present time, taking the quality or the utilization value of the various coals into consideration, costs of production in such fields, speaking generally, are no longer sufficiently below the corresponding costs in more advantageously located fields to absorb the relative freight differentials. Further-
more, subsequent elimination of any remaining wage differentials will further intensify the competitive discrepancy between remote and adjacent producers.

V. "Consumer Value" as a Basis of Price Establishment

In March 1934, three of the Subdivisions of Division No. 1 of the Coal Code Authority, namely, Eastern Subdivision, Western Pennsylvania Subdivision, and Northern West Virginia Subdivision, appointed a Technical Board on the Value Correlation of Coals. This board was charged with the task of devising a method for the classification and correlation of coals as a basis for the establishment of minimum fair competitive prices in accord with the provisions of the Bituminous Coal Code. On June 15, 1934, the Board submitted its final report. In Section I of the report, the implications of the problem and the purposes which were sought in the proposed solution were stated. In essence, the Board concluded that a proper and suitable method of correlating coal prices would be one which would maintain or promote a normal flow of business, and which at the same time would introduce no unfair competitive or monopolistic practices. In seeking a method for price establishment which would be in conformity with these purposes, the Technical Board "attempted to determine what relative value the average consumer should be willing to assign to coals of varying properties, in terms of the relative cost to him in obtaining equivalent utilization value therefrom." In other words, the final measure adopted by the Board for the establishment of relative coal values was essentially a measure of the relative value or relative economic good enjoyed by the consumer.

In determining the attributes and the desires of the consumer, the Board had to focus its attention on one particular consumer, using coal for one particular purpose. The consumer selected was one equipped with the type of plant which a statistical study indicated would be the most probable destination of any ton of coal produced in the three Subdivisions. The purpose selected was the utilization of coal for the production of steam.

To what extent these assumptions limit or even vitiate the value of the Board's findings, it is difficult to say. Quite evidently, the Board felt that its selection of a consumer made its findings directly applicable to most of the coal used for the purpose selected, and that the probability of an advantage or disadvantage to other types of consumers was about equal. In fixing its at-
tention on the use of coal for steam raising, the Board considered what is by far the predominant use of bituminous coal today. Moreover, with the exception of about twenty-five per cent. of the coal produced, which is consumed by railroads and in other miscellaneous uses, all uses of coal other than steam raising require coals with special properties which are sold at a premium price. The Board was justified in the belief, therefore, that if its solution were suitable, it should be applicable to at least seventy-five to eighty per cent. of the bituminous coal produced, railroad fuel being the only important single use which might justify special treatment.

In establishing the formula by means of which the relative values of various coals were to be computed, the Technical Board considered only those properties of coal which could be determined with reasonable precision. It was admitted that other factors or properties exist which would influence the marketability of a given coal or its value to the consumer. It was recommended that the formula be subsequently improved by taking cognizance of such factors as soon as acceptable and precise methods for their evaluation had been developed. Although it did not explicitly state the fact, the Board was probably aware that its formula was necessarily temporary in character. As the technology of the utilization of coal advances, new equipment becomes available to the consumer and old equipment now in use becomes obsolete. The effects of the physical and chemical properties of a given coal on the utilization value will vary, naturally, in improved equipment. Consequently, the relative value of the factors considered by the Board must be changed in order to keep abreast of a changing technology. It is reasonable to suppose, however, that the formula would not require marked modification in a space of less than three to five years.

It is important to observe that the solution proposed by the Technical Board did not in any way provide for the establishment of the actual price of coal. It was concerned solely with the determination of relative values. The actual price level or the dollar value of any particular coal in a given market area will naturally be a function of the cost of production, of the cost of transportation, of the relative utilization costs of other competing fuels, and of many similar factors. Once, however, the actual price of any given coal in a given market area is established, whether by the coal industry or through the direction of a governmental agency, the application of the method proposed by the Board for
the establishment of relative prices would immediately determine the actual price of all other coals selling in the same market area. Since that price is based upon consumer value, it follows that in so far as practicable, all coal would then sell in the same market area under equal competitive conditions. This implies of course that freight differentials must be absorbed by the producer in so far as he is able to do so. Should the freight differential become so great that its absorption would force the producer to sell his coal at less than the cost of production, that market area would be closed to that producer because of his uneconomical location.

Finally, it should be mentioned that the relative prices arrived at by the application of the method proposed by the Board are relative minimum prices. It was understood, of course, that coal may sell above the prices so established, although in practice, it is found that this does not happen except in the case of coals being sold for special premium uses. On the other hand, the stipulation that coal may not be sold at less than its cost of production places an additional limitation on the determination of minimum fair competitive prices. In the case of low grade coal, especially from mines distantly located from the market, such prices will naturally prevent sale at the relative value established by the Technical Board formula, since the "consumer value" price will probably be less than the actual cost of production unless the mine enjoys singular natural or geologic advantages.

VI. Critique of Technical Board Method of Value Correlation of Coals

Before attempting to evaluate the method of price establishment recommended by the Technical Board, it is necessary to postulate some definite basis for the determination of the absolute price or dollar value of coal in the various market areas. Let it be assumed that, through federal direction or approval, the price level was established at periodic intervals, or from time to time, at a point whereat the operating coal industry as a whole would realize a reasonable profit based upon a reasonable evaluation of the operating investment. This appears to be administratively possible. Federal income tax records would establish both investment and profit; or the continuation of studies such as the research division of the N. R. A. has been making on the cost of production of coals from all producing mines might be used to provide the necessary basis of computation. Moreover, the con-
cepts of "reasonable profit" and "reasonable operating investment" are administratively familiar.

By this plan, every coal operator would be given an opportunity to make a profit, but in no individual case would there be a guarantee of profit. Quite evidently, operators with a high margin of profit would be compelled to sell their coal at or above the minimum price based on consumer value and take their full measure of profit, rather than to increase their total profit by selling at a lower price, taking a smaller margin per ton, but seeking an increased volume of business. To be sure, such high profit operators could devote greater effort to the sale of their products and thereby increase their volume of business at the established price.

Under a plan of this nature, the general trend of coal prices should be downward. The distribution of profits to individual operators would be a sort of probability function. Under the prices thus established, some operators would make a large profit; others obviously would suffer a loss. Economically and legally, those operators whose costs of production exceeded their consumer value prices would be compelled to sell at the higher production cost and would ultimately be unable to compete. Evidently, there would be a steady shift of both investment and production to the low cost producers. As this occurred, the net profits of the industry as a whole would increase, other factors remaining equal, and as a consequence, the price level of coal would be decreased in order to maintain the reasonable rate of return. Under the reduced price level so established, the same series of events would occur, the general trend in price to the consumer going downward until a stable level had been attained.

Applying the criteria already enumerated to the recommendation of the Technical Board, the following significant points may be noted.

1. From the consumer's viewpoint: Both economic theory and business experience teach that in a stable, economically sound market where production and consumption are well balanced and where reasonable profits are made by the producer, the relative prices of competing products approximate very closely their relative values to the consumer. In that it would maintain this relation, the Technical Board method appears sound and fair.

An additional advantage lies in the flexibility of the Technical Board method. It does not freeze or give permanence to an un-
economical distribution of production, as some proposals for allocation of tonnage would do. The burden of uneconomical production is not laid upon the consumer, since there is no restriction on the ultimate shifting of production to those producing areas or those mines which may produce the coal most economically.

It has been argued that since the efficiency of mining, care and preparation of the coal, or the overall cost of production do not enter into a "consumer value" formula, the consumer cannot enjoy the benefit of skilful management or of low cost mining conditions. It is true that this plan subordinates the interests of the advantageous producer and his customers to the interests of the industry as a whole. It must also be remembered that the low cost producer will have a greater margin for selling effort and he will inevitably tend to acquire a larger share of the market. Finally, the plan should promote overall efficiency and downward price trends with protection against exorbitant prices in a seller's market.

The effect of the Code has been greatly to increase coal prices, as compared with those existing under the previous regime of unrestricted competition. Does this indicate that the consumer is placed at a disadvantage under the operation of a system of price control? Not necessarily. In the long run, the consumer's advantage must be compatible with social welfare and an intelligent conservation of our natural resources. During the period of low coal prices, the coal industry as a whole made no net profit. Miners' wages went below the subsistence level. Mining operations were carried on with little if any regard to the intelligent conservation of mineral resources. If one were to add together the deficits of the coal industry, the difference between a fair wage and the wages actually received by labor, the sum of the moneys expended by state, national and private relief for the support of stranded miners, some idea would be obtained of the coal production cost which was not paid by the coal consumer. No intelligent economist seriously questions the assertion that such a situation ultimately operates to the consumer's disadvantage.

4 On the basis of data compiled by the Federal Emergency Relief Administration, the average West Virginia family receiving federal relief is about 4.7 persons. It requires a minimum of $34 per month for bare subsistence. (Relief payments, however, average one-half this amount or $17 per family.) It is similarly estimated that the monthly income for "minimum comfort" is $60 per family. There are approximately 125,000 coal mine employees in this State. Minimum comfort wages for each would amount to $90,000,000 per year at current living costs. In 1932, the total wages paid to coal mine
2. Labor's viewpoint: Assuming that the price level of coal is maintained at a point where a reasonable profit is made by the industry as a whole, and assuming that the "consumer value" basis of price establishment would not bring about any sudden or serious reallocation of production in the various producing areas, the interests of labor should be safeguarded. Labor's major interests concerning hours, wages, and collective bargaining provisions would not be adversely affected by this method of price control. If a reasonable profit to the industry can be maintained, the working conditions, safety precautions, and the general welfare of labor can be maintained at a far higher level than in the recent past.

3. The producer's viewpoint: Provided that the absolute price of coal is maintained at a proper level, assuring to the industry as a whole a reasonable profit, the operator whose production costs are less than the relative value to the consumer of the coal he is producing should obtain his proper share of this profit. Moreover, this plan assures the producer equal competitive opportunities in all markets with all other coals. On the other hand, the low cost producer would be restrained in the amount of profit he might make.

4. Legal aspects: In the absence of a decision by the Supreme Court of the United States, it is impossible to state with certainty whether any plan of direct or indirect price control is legally defensible. One may, perhaps, argue with reason and justice that the setting, under government supervision, of a general price level for a commodity at a point which will enable the industry as a whole to make a reasonable profit is not an unreasonable restraint of trade or a monopolistic practice. The argument grows in force if it can be clearly demonstrated that

employees in this State was about $65,500,000 or $24,500,000 short of the minimum comfort figure. West Virginia produced in that year about one-fourth of the bituminous coal produced in the United States.

In the same year, a 5% return on the estimated investment in the coal producing industry would have amounted to $20,000,000. Income studies made at this University and confirmed by the data of the federal income tax returns for the year 1932 show that the West Virginia coal producing industry suffered a net loss of approximately ten million dollars that year. If it is conceded that an industrial activity should at least support the workers in "minimum comfort" and return a net profit on the investment, then the income paid into West Virginia by the consumers of coal was short by some $54,000,000.

It is significant to note that federal relief payments to miners' families in West Virginia during February of this year were at a rate of about $2,250,000 a year. The added local and private relief contribution cannot be estimated readily.
the failure to stabilize prices will inevitably bring about economic and social chaos in the industry with consequences that will unquestionably result in a restraint of trade in the future.

The case for the establishment of minimum prices based upon the consumer value may be difficult to defend, but it offers many legal advantages over the method now employed by the subdivisional Coal Code authorities. A formula — either that proposed by the Technical Board or a more equitable one — would be precise in its statement and in its basis. Its application would result in the same evaluation no matter who applied it. The analysis given indicates that, so far as one can determine, it should not constitute a deleterious restraint of trade. Certainly there is no evidence that it would bring about any monopolistic practice. On the other hand, it should correct chaotic trade practices and tendencies which occur in its absence.

The present practice as provided in the Bituminous Coal Code for the establishment of minimum prices within a subdivision has many legal objections. Under this method a marketing agency or a marketing committee is set up which is charged with the responsibility of determining minimum fair competitive prices. In general, the conclusions of these committees have been based on past and extended experience in the coal industry. Intimate knowledge of the marketability of the various coals and consumer reactions has permitted them to reach fairly definite conclusions concerning relative values. However, their findings are based upon a consensus of opinion rather than upon the application of a definite yardstick, upon good guessing rather than upon good measuring. Without having any recognized formulae which they may apply, they sit as judges to pass upon the price at which one of their fellows — who is a competitor — may sell his product. To be sure, recourse may be had from their findings, but the higher court is no better equipped with laws of measurement than is the lower court. Were the personnel of the marketing committee changed, it is highly improbable that the new committee would reach the same conclusions concerning prices as did the old one. Now such a procedure is clearly subject to legal criticism. The subdivisional Code authorities are not incorporated and it is arguable that the members of the marketing committee may be subject to legal action for violation of the Sherman Anti-Trust Act by a competitor whose price has not been fixed to his satisfaction. The administrative problem of determining and the legal
difficulty of defending prices established on the basis of personal opinion, rather than on the basis of any generally accepted formula, must be evident.

5. Technical feasibility: The administration of a method of price control in the coal industry based upon consumer value as a measure of relative prices appears to offer no insurmountable difficulties. This method of price control would require that each producing area determine precisely the physical and chemical qualities of all the coals, and the various grades thereof, that are shipped from the subdivision. In all cases, this information would be a needed asset to the industry and to the consumers of coal. In most cases, arrangements are now under way to collect this information. The ignorance of numerous coal operators concerning the character of their own products is remarkable. Countless examples have occurred where the operator has contended that the Code price set upon his coal was too high because of a mysterious sales resistance or a market aversion to his particular type of coal. In every instance investigated by the writer where this claim was made in good faith, it was found that while the producer was correct and his price was too high when measured by the relative value of his coal to the consumer, the reason was not any mysterious marketability factor, but simply that the analytical properties of his coal were inferior to those which the operator thought it possessed. In many instances, the consumer value price would have placed the coal even lower than the price for which the operator was contending.

6. Reallocation of production: It has been indicated that under this suggested plan of price control a shift in production, tending to eliminate the submarginal mine or submarginal producing area, would probably ensue. This, of itself, would be a salutary, in fact a necessary step toward stabilization. Would it, however, proceed so rapidly that extensive social maladjustment and distress would occur? Fortunately, some experimental evidence exists to assist in deciding this point.

The Report of the Technical Board on Value Correlation of Coals was never officially adopted by any of the subdivisions to which it was submitted. However, an examination of the Coal Code prices of all coal produced in these three Subdivisions for shipment to Market Area No. 2 (Baltimore) very clearly indicates that the Code prices have actually been very closely proportioned to the relative consumer value prices of the coals. This is shown
PRICE-FIXING IN COAL INDUSTRY

CHART SHOWING COMPARISON OF ACTUAL DELIVERED CODE PRICES AND DELIVERED PRICE BASED ON THE TECHNICAL BOARD REPORT (CONSUMER VALUE)

LEGEND
- Nor W Va Sub-DV Coals
- Eastern Sub-DV Coals
- Western PA Sub-DV Coals

CHART I
CHART II

CHART SHOWING ACTUAL CODE MINE PRICE ON THE TECHNICAL BOARD COMPARISON OF MINE PRICE BASED ON THE TECHNICAL BOARD REPORT (CONSUMER VALUE)
PRICE-FIXING IN COAL INDUSTRY

graphically in Charts I and II. Chart I shows the relation between the delivered Code price in the market compared with the relative consumer value as calculated by the Technical Board formula. Quite evidently, if the relationship were perfect, all the points should fall on the straight line drawn on the figure. However, in none of the cases is the discrepancy very large. Chart II shows a similar plot of the Code mine prices of the same coals plotted against the consumer value prices determined by properly correcting the delivered price for the cost of freight transportation from mine to destination. Here again, it will be observed that discrepancy in price rarely exceeds a few cents per ton. The points indicated are based upon average analyses of coals of a given price class in each of the subdivisions and refer only to run-of-mine prices. The data cover most of the coal delivered to the particular market. The information available to the writer was limited and in some cases the analyses are probably incorrect. However, the graph presents all the information at the writer's disposal, covering the period at which these prices were in effect. Similar plots of the same data at other times during the year 1934 and in fact of prices preceding the submission of the Technical Board report show substantially the same relationship. This evidence is meager. It refers to only one size of coal and to one market area, and does not cover all Subdivisions. Yet it apparently indicates that, by and large, during the operation of the Code in 1934, coals generally sold on the basis of their value to the consumer, as interpreted by the Technical Board. If this conclusion can be accepted, very significant deductions can be made.

In July, 1934, the then administrator of the Coal Code, Mr. C. E. Adams, proposed a percentage allocation of output to all Subdivisions of Division No. 1 of the Bituminous Coal Code Authority. The allocation was tentatively accepted by the industry as a basis upon which prices in the several Subdivisions might be correlated to maintain approximately the "normal" share of production in each producing area or subdivision. The actual records of production for the entire year 1934 are now available. How well this distribution of prices maintained a normal business allocation of production may be judged from the table set out
below. To what degree "chiseling" practices rather than this price structure contributed to the maintenance of the "normal" allocation, no one can say.

On the other hand, an examination of the output of individual mines before and during the regime of the Code shows a very pronounced shift. Unfortunately, no study seems to be available to indicate what factors have been operative in this reallocation and whether the shift has been away from the submarginal mine. While this evidence is incomplete and unsatisfactory, nevertheless it is at least as extensive as that usually available in drawing an economic conclusion. In any event, the data available apparently indicates that relative prices based upon consumer values of coal will not result in any sudden shift or reallocation of production between the various producing areas.

VII. Price Control through Allocation

An alternative proposal which has frequently been made for the stabilization of the coal industry is the direct allocation of a definite percentage of the total coal requirements of the country to the various producing areas and to the individual mines. Nom-inally, this plan would avoid the legal pitfalls and the administrative problem of price-fixing. Actually, of course, it is simply an indirect method of price control. The theory of allocation is to secure an artificial semblance of scarcity in an over-supplied market and thereby make the market a seller's market rather than a buyer's market, thus causing the price to be maintained at a desirable level.

Now coal is essentially an inelastic commodity. That is, the price of coal will not, over a short period of time, significantly affect the amount of coal which will be consumed. To lower the price of coal will not induce the consumers to use more coal than they need. Nor will an increase in the price of coal result in a decrease of the amount consumed within relatively narrow limits. It is of course true that coal suffers an intercommodity competition from oil and gas, and that high prices for coal over a long period of time would induce a steady shift from coal to a competitive fuel. However, such a shift cannot be made rapidly, owing to the high

5 PER CENT THAT ACTUAL COMMERCIAL PRODUCTION IN 1934 WAS OF THE "ADAMS ALLOTMENT"

<table>
<thead>
<tr>
<th>Subdivision</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eastern Subdivision</td>
<td>99.3</td>
</tr>
<tr>
<td>Western Pennsylvania Subdivision</td>
<td>97.4</td>
</tr>
<tr>
<td>Ohio Subdivision</td>
<td>100.5</td>
</tr>
<tr>
<td>West Virginia Panhandle Subdivision</td>
<td>91.3</td>
</tr>
<tr>
<td>Northern West Virginia Subdivision</td>
<td>91.5</td>
</tr>
<tr>
<td>Southern No. 1 Low Volatile Subdivision</td>
<td>104.7</td>
</tr>
<tr>
<td>Southern No. 2 High Volatile Subdivision</td>
<td>101.8</td>
</tr>
</tbody>
</table>
capital outlay which is necessary to convert utilization equipment to other types of fuel. Consequently, at any one time, we may consider coal as substantially inelastic in its economic characteristics.

The price characteristics of inelastic commodities are well known. When there is a shortage, the price soars. When the supply or the potential availability is even slightly in excess of the probable demand, the price immediately tends to fall to the cost of production or to the lowest price quoted. These price trends inevitably occur unless some arbitrary barrier is interposed to prevent them. This is not academic theorizing. We have no better example of these phenomena than the history of the coal industry itself. The curve of consumption of coal bears no relation whatever to the curve of coal prices. On the other hand, the graph of coal prices is an accurate historical record of real or threatened coal shortages, whether because of wars, labor difficulties, car shortages, railroad strikes or whatever cause. Since 1927, there has been no serious doubt as to the availability of ample coal supplies, particularly since the requirement or demand was steadily decreasing. This period has been marked by low and steadily decreasing coal prices, which fell at least as rapidly as the cost of production could be brought lower. During this period the industry naturally operated at a net loss. Evidently, then, if allocation is to benefit the coal industry, the total sum of the allotment must be sufficiently below the demand to induce an element of scarcity into the market. Under these conditions, the price will soar. To provide against injury to the consumer, most allotment plans provide for a maximum limit on the price of coal.

Yet it is extremely doubtful whether the purpose of allocation could ever be realized in practice. The political and economic pressure of the flood of consumer protest against the industry or against the governmental agency which arbitrarily prevented the production of available coal could scarcely be withstood. If the allotment-fixing authority yielded to this pressure — and it seems inevitable that it would — the element of scarcity would be removed from the market and the price would fall. There appears no reason whatever to suppose that if this occurred, the coal industry would be substantially better off than under a regime of cutthroat competition.

A second fundamental difficulty with strict allocation is that it tends to perpetuate an economic situation which is probably unsound, and inhibits the normal action of economic and industrial
forces which make for increased efficiency, and technical and social progress in the industry. Moreover, it is difficult to discern any factors in the policy which would promote the conservation of this great natural resource.

Aside from these fundamental objections, an allocation plan apparently would make the interests of labor and consumer mutually incompatible. Labor’s objectives can be maintained only in a profit-producing industry. Under allocation, this condition is attained only in a “scarce” market in which the price of coal will inevitably trend to the maximum. The consumer’s interests, on the other hand, would dictate the allotment of an abundant supply of coal, with the consequent introduction into the market of all the elements of unrestricted competition. The fact that the consumer must carry the burden of the uneconomical producer or the submarginal mine under an allocation plan would be an additional incentive in this direction. The history of the industry has clearly shown that labor’s objectives can never be obtained under an unrestricted competition regime.

Proponents of allocation have claimed among its advantages ease of administration and ease of enforcement. This may be true, although it is difficult to compare the relative merits of stability through allocation and through direct price control in this respect. Superficially, it would appear that the legal and technical difficulties involved in devising an equitable and workable allotment plan would be less than the complexities of direct price establishment. Yet a study of the testimony recently presented at the senatorial hearings on the Guffey Bill casts considerable doubt on this contention. Moreover, the ease and simplicity of checking compliance with allotment quotas through records of railroad shipments is more apparent than real to one familiar with the growing problems of “bootleg” production and truck shipment of coal.

Recognizing the fundamental economic objection to a plan of strict allocation, most proponents of this method of stabilization have introduced two modifications. In the first place, they would permit a periodic shift in allocation, based upon consumer demand. Secondly, a means of direct price establishment through the correlation of prices between producers is introduced. The first modification tends to destroy the greatest advantage of strict allocation, namely, security against the rapid development of new social and economic problems through sudden shifts of production in the coal producing areas. In addition, it introduces a multitude of new legal and administrative problems. The second modification
introduces all the legal difficulties and the numerous other problems of price-fixing which have already been discussed. Differently stated, the modified allotment plan becomes a plan of price control through direct price establishment, with the many complexities and problems of allocation and shifting quotas superimposed.

These are the salient aspects of the price control features of the principal plans that have been proposed for the stabilization of the coal industry. Until something better is offered, they apparently comprise the selection of materials or fabrics from which the artificial limbs of this industrial cripple may be constructed. The problem of producing a stable structure therefrom constitutes a worthy challenge to the vision, the ingenuity and the constructive ability of the legal doctors and engineers.