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C. C. Williams Jr.
West Virginia University College of Law

Kemble White Jr.
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PROFITS A PRENDRE AND INTERSTATE PRICE-FIXING

C. C. WILLIAMS, JR.*
KEMBLE WHITE, JR.**

"IN NO other field of public service regulation is the controlling body confronted with factors so baffling as in the natural gas industry."1 Perhaps so drastic a statement, made two decades ago, should now be carefully noted in the light of recent geological facts and new legal doctrines. While the nation's gas production has on the whole more than doubled during this period, the Appalachian gas field long since passed the peak of its producing ability—though rate-making in West Virginia's gas markets continues to drag along through regulatory machinery,2 just as if that supply were inexhaustible. Into the picture there has eventually come the federal Natural Gas Act of June 21, 1938, now upheld by the United States Supreme Court in two unanimous decisions.3 Yet the really vital issue as to proper valuation of gas leaseholds, both as regards the producer and the producing state, seems to remain as perplexing an enigma as before. In any event, the common law at least has so far failed to provide the solution.

Something like half of the nation's total annual consumption of natural gas is presently transported in interstate commerce, so the problem of rate-making becomes a most important one, especially because such an interstate gas traffic for the most part denoted purely private business and not public utility service prior to the 1938 federal law.4 It also complicates matters that almost four-fifths of the whole national production goes for industrial purposes, with ordinary domestic use playing a surprisingly minor role in its utilization. In other words, unlike the product of most

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* Professor of Law, West Virginia University.
** Member of the Student Board of Editors, West Virginia Law Quarterly.
2 The recent gas case of Columbus, Ohio, began with the city ordinance of 1924,—see Columbus Gas & Fuel Co. v. City of Columbus, 17 F. (2d) 630 (1926); it ended with the ordinance of 1941,—see Columbus Gas & Fuel Co. v. City of Columbus, 42 F. Supp. 742 (1941). During this period, there was almost continuous litigation in all courts as to proper rates to be charged.
public service companies, there is some sort of existing price for
gas which is relatively independent of the customary sales to utility-
patrons; and that gas price is established by trading at arm’s
length in competition with coal, coke, oil and other fuels. Moreover,
natural gas companies furnish an irreplaceable commodity: a
state’s natural resources are seriously depleted in this kind of
commerce. It is all very well to compare the interstate development
of gas reserves with the movement of timber, iron ore and other
raw materials from mining states to manufacturing centers, but
the essential factor of price control is then overlooked. Under
normal conditions, there is no restraint on the interstate bargain-
ing as to timber or solid minerals: a producing state’s economy
is not seriously threatened by outside rate-making. It must be
borne in mind, of course, the litigation in Pennsylvania v. West
Virginia\(^5\) merely involved the producing state’s effort to afford
priority to its own domestic gas consumers, without regard to con-
siderations of cost. On the other hand, interstate rate-making may
in the long run entail the export of so valuable a natural resource
at a sale price less than the actual value of the commodity at the
point of origin.\(^6\) Should the Federal Power Commission thus follow
out all the implications of the Pennsylvania v. West Virginia
theory,\(^7\) there is apparently nothing in the way of a ruthless ex-
plotiation of gas leaseholds for the benefit of distant consuming
states.

It might be well to survey briefly methods of gas leasing in
West Virginia, in order that various legal incidents of the gas
leasehold may readily appear. Normally the Appalachian oil and
gas operator will first select an area for prospecting work, assuming
favorable structure and sand conditions; naturally the porosity and
permeability of the producing formation cannot be accurately pre-

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\(^5\) 262 U. S. 553, 43 S. Ct. 658, 67 L. Ed. 1117 (1923).

\(^6\) "The investor and consumer interests may so collide as to warrant the
rate-making body in concluding that a return on historical cost or prudent
investment though fair to investors would be grossly unfair to the consumers."  
699 (1942), per Black, J., concurring. It is of course theoretically possible
that an attempt might be made also to apply here the doctrine of the Assigned
Car Cases (United States v. Berwind-White Coal Mining Co.), 274 U. S. 564,
47 S. Ct. 727, 71 L. Ed. 1204 (1927), and thus to limit "the use of certain
interstate transportation facilities" unless a specified type of rate-base were
accepted by the interstate natural gas producer.

\(^7\) Among these implications are the assumption that West Virginia gas
reserves have been irrevocably dedicated to interstate commerce, so that out-
side consumers may even demand a voice in their management, and the further
hypothesis that the producing state shall have no participation in their market-
ing under exclusive federal regulation.
dicted by the geologist until drilling has made considerable data available. And from this angle, new gas supplies must always prove a risky speculation. Granted, however, a promising region has been chosen for prospecting, the process of securing mineral titles then gets under way. Taking into account the cost and uncertainty of buying the mineral rights in fee, the sounder policy of leasing them is usually adopted here, the practice being to get together as large a block of leased acreages as practicable, before drilling a test well in unproven territory. To ensure retaining the benefit of favorable discovery, the operator must therefore acquire and hold thousands of acres during the exploratory period. Otherwise, successful drilling might simply prove territory controlled by others, so that neighboring leases in each direction would have to be bought up in competition with outsiders, and at prices reflecting the operator's own hazardous accomplishment. Yet if a series of dry holes indicates nonproductive land, those very leases will probably be surrendered, and their entire charges be written off as total loss along with the serious drilling expense. By and large, in the gas industry one thus meets with a constant cycle of surrendering old leases and taking up new ones as the effort to locate new reserves continuously persists.

Orderly development of a new producing field is seldom possible. For one reason, other operators soon enter the scene, and keenest competition in leasing and drilling becomes inevitable. Moreover, since gas cannot be stored in the same way as oil, the number of wells to be drilled must depend on market demand; and that market demand necessarily fluctuates widely in alternating periods of industrial prosperity and depression and in seasonal variations of domestic use. A third factor is the "doctrine of development" invented by the common law in an epoch when judicial ideals of conservation of natural resources were scarcely yet discernible—though the new federal regulations as to

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8 Ownership of fugacious minerals in fee simple is recognized West Virginia doctrine. Williamson v. Jones, 39 W. Va. 231, 10 S. E. 436 (1884); Wilson v. Youst, 45 W. Va. 826, 28 S. E. 781 (1897); Preston v. Young, 57 W. Va. 278, 50 S. E. 296 (1905).

9 Sometimes underground storage can be worked out. See Hammonds v. Central Kentucky Natural Gas Co., 225 Ky. 655, 75 S. W. (2d) 204 (1934); discussed in Comment (1935) 41 W. Va. L. Q. 431. An Ohio gas company has also recently installed a plant to liquify gas.


drilling acreage now help out somewhat. And, finally, the variable thickness and lenticular character of local producing sands make local geological prophecy far less certain than in regions of the southwest. Accordingly, operators with important markets cannot safely rely on a few active fields: there must always be a back-log of proven or probably productive acreage readily available for immediate drilling as the market demand picks up or as existing supplies are swiftly depleted. The size of this “savings-bank account” of unoperated acreage is largely a matter of individual prudence and foresight.

All these areas, both producing and unoperated, are held under oil and gas leases which have usually been secured for a nominal consideration. Under their provisions, the operator pays an annual delay rental—as a rule, a dollar an acre—as compensation for postponing drilling; the so-called fixed term or exploratory period then runs for five or ten years, as the particular lease may provide. If within this term a producing well is successfully brought in, the extension clause (“as long thereafter as oil or gas is produced”) next comes into play, and the lease continues indefinitely thereafter for the life of the field. In that event, the operator will pay the lessor a stipulated gas well rental—ranging between two and three hundred dollars a year for each well from which gas is marketed—or, somewhat less frequently and in the newer fields, the lessor will receive a gas royalty equivalent to one-eighth of the gas marketed. As the production gradually diminishes over the years, the operator nurses the old wells along until the rock pressure falls to the average abandonment minimum, and ultimately the operation is given up.

These details are essential to an understanding of the legal significance of the ordinary gas leasehold, which is simply the legal right of the operator to enter on the lessor’s premises, to explore for gas, to “sever” the gas from the freehold by reducing it to

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12 That is to say, the new federal drilling regulations limit the number of wells, on an acreage basis. For example, in West Virginia, only one well is to be drilled for each forty acres as regards ordinary shallow sands. For deep-well drilling (i.e., to the Oriskany sand), it is one well for each hundred and sixty acres.

13 Sisler and Tucker, Natural Gas in West Virginia [contained in GEOLoGY OF NATuRAL GAS, published by the AMERICAN ASSOCIATION OF PETROLEUM GEOLoGISTS (1935)]. Davis, General Geologic Description of Natural Gas Properties, HEARINGS BEFORE PUBLIC SERVICE COMMISSION OF WEST VIRGINIA, Part I (1924).

14 No-term leases are also encountered, but these are relatively infrequent. Wilson v. Reserve Gas Co., 78 W. Va. 329, 88 S. E. 1075 (1916), indicates how such a lease may prove disadvantageous.
possession, and to remove it from the premises. In other words, the gas lessee has a common law profit a prendre, of an exclusive nature,\textsuperscript{13} conveyed originally for a term of years and then on discovery extended for the life of the field.\textsuperscript{16} In West Virginia, for example, the operator’s interest is treated as a chattel real,\textsuperscript{17} which is to say, a profit for years rather than an incorporeal hereditament, subject as such to the lien of an execution\textsuperscript{18} and taxable presumably as Class IV personalty.\textsuperscript{19} Analogously, the lessor’s rent-receiving reversion in subsurface minerals has separate legal recognition, being valued for tax purposes at several times the annual gas rental or royalty per well, depending on the character of the producing field.\textsuperscript{20} In other words, both the grantor and grantee of the profit own important property interests; and those possess considerable present taxable value, quite apart from the original consideration for the lease and the development costs ensuing later. Between the parties, together they own the gas. All this would seem to be most elementary knowledge in oil and gas law, were it not for the alarming proposal now seriously offered, that the interstate consumers should “reap the advantage of the discovery value” of Appalachian gas leaseholds. Surely Pennsylvania v. West Virginia ought not to be carried so far.

In the last analysis, the real question is the proper valuation of the gas profit a prendre,—both as regards producing areas and the unoperated leaseholds prudently held in reserve for reasonably anticipated market demand. Recently the issue was (partly) summed up in these words:

“When undeveloped acreage is proved non-productive, its cost, the cost of drilling and delay rentals, are worthless. If proved productive, however, it suddenly acquires great intrinsic value as a gas producing acreage. The inclusion of this enhanced value on productive acreage in the rate base, with the depletion expense computed upon such value and allowed in operating expenses, provides for all losses in connection


\textsuperscript{16} See Eastern Oil Co. v. Coulahan, 65 W. Va. 531, 64 S. E. 836 (1909).

\textsuperscript{17} State v. South Penn Oil Co., 42 W. Va. 80, 24 S. E. 688 (1896).

\textsuperscript{18} Drainer v. Travis, 116 W. Va. 390, 180 S. E. 435 (1935); see Comment (1935) 42 W. Va. L. Q. 75.

\textsuperscript{19} See Greene Line Terminal Co. v. Martin, Assessor, 122 W. Va. 483, 10 S. E. (2d) 901 (1940); Comment (1941) 47 W. Va. L. Q. 239.

\textsuperscript{20} For example, in Gaylord v. Hope Natural Gas Co., 122 W. Va. 205, 8 S. E. (2d) 159 (1940); Comment (1941) 47 W. Va. L. Q. 143. See the RECORD therein at pp. 166, 210, 264, 329.
with exploration and development and provides a fund to obtain additional developed gas acreage to replenish the gas supply."

The quoted material has reference to the "fair present value" doctrine as applied to gas properties. Yet unless the legal incidents of the operator's profit are clearly realized, along with those of the lessor's rent-receiving reversion, there is more than a possibility that interstate rate-making may follow original cost principles, and with depletion allowance based wholly thereon. The danger in the present situation is that old-fashioned concepts of property law may not apply: federal courts may eventually disregard the respective legal interests involved, and arrive at the destination of regarding the operator's gas rights as analogous to a fee ownership in realty or personality, valued for interstate consumers on some prudent investment basis.

It may be suggested that there simply cannot be one general law of property for all ordinary purposes, and then quite another body of legal doctrine covering these very same phases of ownership yet applicable only in special fields. In short, property rights must perforce be identical in every branch of law, whether the issue arises in adjective phases of pleading or evidence, or embraces substantive questions of contracts or torts; rate-making should ensue along exactly similar lines. The only difficulty with such a common sense view is that the decisions are going the other way. In the vast field of federal taxation, for example, fundamental concepts of the law of future interests seem to fade out of the picture. The vesting of contingent remainders,21 the special quality of the possibility of reverter,22 the essential difference between the joint tenancy and tenancy by the entirety,23 the precise significance of the exercise of special powers of appointment,24 and the con-

21 In Commissioner v. City Bank Farmers' Trust Co., 74 F. (2d) 242 (C. C. A. 2d, 1934) the issue was whether a remainder was contingent or vested. Learned Hand, J., dissenting, said (p. 247): "I am quite aware that this is all largely matter of words, but so is much of the law of property; and unless we treat such distinctions as real, that law will melt away and leave not a rack behind."

22 Helvering v. St. Louis Union Trust Co., 296 U. S. 39, 56 S. Ct. 74, 80 L. Ed. 29, 100 A. L. R. 1239 (1935), per Stone, J., dissenting (296 U. S. 46) : "Having in mind the purpose of the statute and the breadth of its language, it would seem to be of no consequence what particular conveyancers' device—what particular string—the decedent selected to hold in suspense the ultimate disposition of his property until the moment of his death."


exclusive presumption as to capacity for issue;25 these and others lose their common law force in tax cases. A recent opinion phrased the new practice thus:26

"The constitutionality of an exercise of the taxing power of Congress is not to be determined by such shadowy and intricate distinctions of common law property concepts and ancient fictions."

If one were to substitute the expression rate-making for the word taxing in that broad dictum, and then to stress overmuch "the consumer interest" emphasized in the Natural Gas Pipeline case,27 it would be an easy solution to ignore leasehold values. A misapplication of Pennsylvania v. West Virginia might then seriously jeopardize the producing state's welfare.

After all, in the Appalachian region the natural gas still represents a valuable subsurface mineral resource; and there is no adequate motive for its exploitation unless the respective owners of these various property rights are fairly compensated. Certainly the original nominal cost of the gas-producing acreage is scarcely the proper basis for determining its real worth, ignoring as this does the risk and effort involved in discovery. The dry-hole hazard,

S. Ct. 277, 84 L. Ed. 319 (1939); "Taxation is not so much concerned with the refinements of title." See Leach, Powers of Appointment and the Federal Estate Tax—A Dissent (1939) 52 Harv. L. Rev. 961.

25 United States v. Provident Trust Co., 291 U. S. 272, 285, 54 S. Ct. 389, 78 L. Ed. 793 (1934), per Sutherland, J.: "Moreover, the case does not involve the rule against perpetuities, the devolution of property, the rights or title of living persons in or to property, or any other situation such as constituted the background of practically all the decisions which have sustained the conclusiveness of the presumption."

26 Per Black, J., in United States v. Jacobs, supra n. 23. See Comm'r of Internal Revenue v. Marshall, 125 F. (2d) 943, 945 (C. C. A. 2d, 1943), per Frank, J.: "It is argued, in effect, that the differentiation made in 'property law' between 'vested' and 'contingent' remainders is a sort of sacred cow which, in all circumstances and in particular when applying the gift tax statute, must be respected. The argument runs that once a contingent remainder always a contingent remainder: that if a gift is 'contingent,' it is not a 'completed' gift and is, therefore, not taxable as such... The Supreme Court there remarked that 'the law of contingent and vested remainders is full of casuistries'; said that those 'elusive and subtle casuistries' may 'have their historic justification but possess no relevance for tax purposes'; noticed that those 'niceties of... conveyancing' derive 'from medieval concepts' relating to ancient forms of land ownership; and flatly announced: 'Distinctions which originated under a feudal economy when land dominated social relations are peculiarly irrelevant in the application of tax measures now so largely directed toward intangible wealth.'... And that is all to the good: Unscrupulous and unreliable in his life, Coke should not govern us from the grave."

for example, seriously increases the speculative character of the
venture.\(^{28}\) "fishing jobs", storms, fires and destructive accidents
also serve to enhance the value of productive territory, to an extent
hardly realized by the courts. Similarly, the "wasting asset" char-
acter of gas development has both direct and indirect effects. One
readily grasps the notion that the producing mine, or oil or gas
well will sooner or later become exhausted, without always noting
that a gradually-declining production must inevitably send up
operation costs. When the rock pressure is high and little need be
done to the gas to get it to market, the task is comparatively simple;
but as producing areas decline, compressor stations must more
and more be added and new expenses incurred. The long and
short of it has invariably been that gas charges constantly rise,
once the supply begins to fall off. Still another aspect of the lease-
hold valuation is this unique and irreplaceable commodity which
is yielded, for there is vast superiority over manufactured gas in
B. T. U. content, flame temperature, odor and nonpoisonous
properties.\(^{29}\) As noted above, this cheap convenient fuel service
differs fundamentally from the ordinary utility product in the
view that the chattel delivered to the consumer can here never
be duplicated: a business marketing electricity or water or transpor-
tation has no such dismal future ahead. So for all those rea-
sions, it is important now to analyze carefully the statutory regu-
lation recently established by the federal government—which is
in the truest sense historic.

The Natural Gas Act of 1938\(^{30}\) is significant both as a record of
legal principles and as a model of present-day statutory com-
position. After reciting that the interstate gas business "is affected
with a public interest", the act then brings within its scope all
natural gas transportation and sale for resale in interstate com-
merce, for ultimate public consumption "for domestic, commercial
industrial or any other use." In brief, there are then the cus-
tomary rate-making provisions, forbidding unjust, unreasonable,
unduly discriminatory rates, charges, classifications, practices and
the like. The gas company must of course file all its tariffs, and
can make no changes therein except on due notice to the Federal
Power Commission and public; but the commission may promptly

\(^{28}\) Brown, Valuation of Oil and Gas Lands (1924) 125: one West Virginia
operator recently had three dry holes, with a total cost of more than four
hundred thousand dollars, all within a total period of eighteen months or less.

\(^{29}\) Wyer, Louisiana's Natural Gas Situation (1928) 13.

investigate and suspend any such new rates filed. Naturally the power is expressly conferred to set aside all gas prices which are found bad, either after complaint made by consumers or upon the commission's own investigation. The essential valuation authority is in these words:31

"The Commission may investigate and ascertain the actual legitimate cost of the property of every natural-gas company, the depreciation therein, and, when found necessary for rate-making purposes, other facts which bear on the determination of such cost or depreciation and the fair value of such property."3

And, to prevent the company from withdrawing from its presently-imposed statutory duty of public service, the approval of that regulatory body is prerequisite to abandonment of existing facilities —plus an administrative finding as to the depletion of gas supplies. Along with the usual sections dealing with accounts, records and reports, one finds a paragraph specifically empowering the commission to fix finally proper rates of depreciation and amortization of properties used in the business. Extremely adequate procedural provisions take care of hearings, interstate cooperation, complaints from local jurisdictions and enforcement matters; and as a sort of afterthought, the law generally approves of the conservation of natural gas. It is further to be noted that, among its investigatory functions,—

"The Commission may, after hearing, determine the adequacy or inadequacy of the gas reserves held . . . ; and may also, after hearing, determine the propriety and reasonableness of the inclusion in operating expenses, capital, or surplus of all delay rentals or other forms of rental or compensation for unoperated lands and leases."32

In short, the marketing of interstate gas is henceforth to be controlled in almost every detail by the Federal Power Commission.

One reservation at least should be made. Theoretically, the provisions of the act do not apply "to the production or gathering of natural gas";33—whatever that may mean. On the other hand, there is ample authority in the commission to determine the cost of production both in interstate and intrastate sales, so that the limitation quoted will probably not amount to much. Perhaps its purpose is merely to relieve the federal authorities from assuming

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any responsibility for drilling the wells or compressing gas preparatory to transportation; as a matter of fact, few outside the industry would really be competent to prophesy as to successful development of the Oriskany sand or Corniferous lime. Moreover, another interesting implication in the law has to do with sale for resale for industrial consumption. The commission has been expressly forbidden to suspend any new filed rates relating to industrial use only, the thought presumably being that this type of buyer can take care of himself more adequately. A final comment here might properly be that the statute does not purport to be retrospective, even though in determining "fair value" there is to be an ascertainment of "actual legitimate cost." That is to say, the act does expressly not attempt to convert the private enterprise of pre-1938 vintage retroactively into an interstate public utility during all the decades of its previous operation. Until the Supreme Court has ruled otherwise, it would thus appear that the 1938 company was being regulated by Congress and on its 1938 assets.

If one can properly infer from the very silence of the Natural Gas Act that the method of valuing gas *profits a prendre* is still open, the prior administrative and judicial practice in the task of intrastate rate-making should then be studied. Actually this whole issue is barely a quarter of a century old; yet as one wanders through the labyrinth of case-law, finding value is as complicated as "finding a lost dog,"55 Granted the term is capable of reasonable definition, at least for rate-making purposes, its legal history is rather unsatisfactory. The starting point might well be Judge Learned Hand's generalization:

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35 Bonbright, Valuation of Property (1937) 133, (quoting Prof. John H. Gray). Earlier, (p. 27), Prof. Bonbright remarks feelingly: "But popular thinking, like poetic thinking, is prone to identify the true with the beautiful, and to say that what should be the value of the property, is its value."

36 It is said that Sydney Smith once joined the Political Economy Club, simply in order to learn the meaning of the term value: he resigned from that club as soon as he had discovered that the other members knew as little as he did about it.

37 Bonbright, Valuation of Property 1113: "The result may be compared to that which a novice at photography obtains when he finds, to his dismay, that he has taken several exposures without remembering to turn his film. In the center of the developed film may be seen the face of a friend in Kansas City, which dissolves gradually into the cornice of the Columbia University Library, which in turn merges into lines and shadows reminiscent of a trip to the Pyramids of Egypt."

38 Learned Hand, Have the Bench and Bar Anything to Contribute to the
"The most generally accepted notion is that there is no rigid principle at all, but that under the guise of some such soothing phrase, as reasonable value, all difficulties of theory shall be veiled, and embarrassing commitments avoided. Values shall in each case be determined it seems which will not too much outrage the susceptibilities of either side, by the comforting doctrine that all principles, however conflicting, shall have a just recognition."

Broadly the decisions raise two questions, namely, the propriety of placing any sort of value on leaseholds, and the precise way of ascertaining that value (once the nature of the valuation has been settled). Under the former question, there are three possible solutions: first, to allow the cost of acquiring and holding leases as an operating expense; next, to allow the capitalization of the actual cost of acquiring the leaseholds, charging carrying costs to operating expenses; and finally, to capitalize the leases at their present-day or appreciated value, charging holding costs to operating expenses. To sum up, the rate-making authority has to determine once and for all whether leases are to be capitalized; should such capitalization be sanctioned, it must choose the sort of value to be utilized; but ultimately, having disposed of these other two thorny problems, the last and most tricky puzzle may actually turn out to be the exact means of proof by which a fair ascertainment of such legal value can be had.38

It would be convenient to separate the case-law into two periods, marking the division by the United States Supreme Court's ruling in United Fuel Gas Co. v. Railroad Comm. of Ky.,40 a dozen years ago. Originally, in the earlier stage, there was considerable uncertainty among commissions and courts as to how to tackle the issue. Here, for example, In re Clarksburg Light & Heat Co.,41 held in 1916 that leaseholds should be capitalized at their fair present value, the Public Service Commission allowing a substantial amount both for producing and unoperated territory. Shortly thereafter, In re West Virginia Central Gas Co.,42 analogously set

38 The writer has here followed the analysis of E. M. Borger in an unpublished ms., The Valuation of Natural Gas Leaseholds (1924).
39 278 U. S. 300, 49 S. Ct. 150, 73 L. Ed. 390 (1929).
40 1 W. VA. PUBLIC SERVICE COMM. DECISIONS 101 (1916).
41 1 W. VA. PUBLIC SERVICE COMM. DECISIONS 455, 463 (1918).
the valuation for that utility’s leaseholds at fifty dollars an acre. These two decisions were later disapproved by the commission, by In re United Fuel Gas Co.,43 where more than half a million acres were involved the greater part of which was undeveloped: accordingly only total investment cost was allowed. That new precedent was then employed for In re Hope Natural Gas Co.,44 to the same effect. The whole subject soon came before the Supreme Court of Appeals in City of Charleston v. Public Service Comm.,45 its syllabus favoring ‘‘present fair value:’’

‘‘Consequently it is entitled to have included in its present fair value as a rate base for rate making purposes, appreciation in the value of its gas leaseholds over investment cost.’’

Natural Gas Co. of W. Va. v. Public Service Comm.,46 almost immediately limited the Charleston case by deciding that if the total of delay rentals paid equalled or exceeded ‘‘the appreciation in value of the leaseholds over investment cost, such appreciated value should not be included as a part of the rate base.’’ In re Cumberland & Allegheny Gas Co.47 merely purported to follow these judicial holdings, as did the second Clarksburg48 litigation.

Pennsylvania rate-making quickly developed along similar lines. In City of Erie v. Pennsylvania Gas Co.,49 (where most of the gas lands were held in fee), the Public Service Commission indicated that leaseholds should be given their present fair value; but refused to accept as convincing the valuation proof adduced since that was based on probable future production and gas sales at predicted market prices. On appeal,50 the superior court was equally divided, three judges believing the commission’s finding as to present value was final, while the other three were of opinion that gas holdings should be valued only at original cost. Interestingly enough, these latter regarded gas estates as stored product. The issue then went to the Pennsylvania Supreme Court,51 where the rule as to present value was squarely adopted in these terms:

‘‘Some of the confusion in regard to this evidence might be attributable to the company’s submitting three theories of

43 Id. at 501, 511, 515 (1918).
44 1 W. VA. PUBLIC SERVICE COMM. DECISIONS 839, 845-6 (1921).
45 95 W. Va. 91, 120 S. E. 398 (1923), syl. 2.
46 95 W. Va. 557, 121 S. E. 716 (1924), syl. 6.
47 2 W. VA. PUBLIC SERVICE COMM. DECISIONS 514 (1927).
48 Id. at 611 (1927).
valuation—the present value, commodity value, and segregation value. . . Keeping in mind the purpose for which this evidence was offered, the value of any mineral land must necessarily depend primarily upon demand, quantity, cost of production, and the price received for the marketed product. . . The value of the land is not the selling price of a cubic foot of gas as applied to the supposed quantity in a given field; its value is fixed as a whole, or at so much an acre."

In Ohio, the course of valuation was more tortuous. The Public Utilities Commission originally examined the matter in the cases of In re Northeastern Oil & Gas Co.,52 and In re Ashtabula Gas Co.,54 coming to the conclusion that the cost of acquiring and holding leases should be included as an operating expense. The reason given was the extreme difficulty of finding any fair basis "on which to calculate the value of gas leases, and especially those covering undeveloped territory." The commission then swung over to a book-cost basis. A decade later, in the first Logan Gas Company54 case, such a value was placed on the "used and useful" class I acreage (operated); but the Ohio Supreme Court56 reversed this, holding that the "actual cost" could not be the proper method. Upon remand, the commission appraised the operated territory at twenty-five dollars an acre.58 The Supreme Court now affirmed,57 observing that the commission had

"... arrived at the conclusion that the actual market value was slightly in excess of the value placed upon the leases in the transactions by the original companies, and by this company itself where it had acted both as a willing seller and willing buyer and had both sold and bought such leases."

At first the New York Public Service Commission, by In re Iroquois Natural Gas Co.,58 followed the early Ohio rulings and refused to sanction the increase of the capital account by adding the appreciated value of the leases upon development or operation. Later, on review, the Appellate Division59 held that while there might be difficulties in the way of determining "present valuations", these obstacles did not excuse the necessity for such deter-

53 P. U. R. 1917D 790, 808 (1917).
55 121 Ohio St. 507, 509, 160 N. E. 575 (1929).
57 124 Ohio St. 248, 177 N. E. 587 (1931).
58 P. U. R. 1919D 76 (1919).
mination. So in People v. Public Service Comm.,\(^{60}\) the commission duly accepted the present fair value of the utility’s gas properties as required by the Iroquois reversal, but promptly deducted certain depreciation set up on the company’s books; the reviewing court then cancelled that deduction as being wholly unwarranted. The final decision of Pennsylvania Gas Co. v. Public Service Comm.,\(^{61}\) unqualifiedly accepted market value of leaseholds as the measure of present value, completely disregarding criticism by the commission concerning the reliability of rock pressure measurements to ascertain present gas content.

The legal history of leasehold valuation within the Appalachian territory was mirrored in case-law from the mid-continent field. All the old rulings,—for and against capitalization or for and against present value,—were reviewed in decisions by Oklahoma,\(^{62}\) Kansas\(^{63}\) and Montana\(^{64}\) commissions and courts. The upshot of it all was the approval of an administrative process of valuing gas rights on some basis of present worth, so that the national picture was uniform: up to a dozen years ago, there was very little doubt as to the proper solution. To be sure, the West Virginia Supreme Court of Appeals held\(^ {65}\) that the total of the delay rentals paid had to be taken into account for any survey of appreciation in lease values; yet that judicial result can be understood, even though it seems doubtful. Possibly there was the intuitive thought of achieving lower rates in the regulated West Virginia market for the West Virginia consumers of an exhaustible West Virginia natural resource, as against higher prices in the unregulated sales outside the state. This would seem to be an extremely broad extension of the custom of the lessor’s free gas covenant, so as to amount to a “cheap gas covenant” in favor of local consumers; yet in substance that is what the delay rental holding might accomplish. By keeping down the rate base through a discount of leasehold appreciation, it is not far-fetched to suggest the West Virginia theory effectively protected domestic consumers. Perhaps it merely illustrated a latent effort to circumvent

\(^{60}\) 198 N. Y. Supp. 193, P. U. R. 1923C 239 (1923).  
\(^{65}\) Natural Gas Co. v. Public Service Comm., 95 W. Va. 557, 121 S. E. 716 (1924), syl. 6.
Pennsylvania v. West Virginia: granted West Virginia consumers could not have priority as a matter of state legislation, they might at least have more favorable prices for the local product as a matter of judicial decision.

Such was the background of state administrative practice when in 1929 the issue finally reached the United States Supreme Court. The doctrine had already there been settled that the utility patron had no absolute claim to a share in the company's assets.

"Customers pay for service not for the property used to render it. Their payments are not contributions to depreciation or other operating expenses or to capital of the company. By paying bills for service they do not acquire any interest, legal or equitable, in the property used for their convenience or in the funds of the company. Property paid for out of moneys received for service belongs to the company just as does that purchased out of proceeds of its bonds and stock." 707

The situation of the gas consumer was regarded as more or less analogous to that of the patron who regularly paid the fares charged by the street railway company.68 Moreover, the zenith of the reproduction value theory had already been reached in the Indianapolis Water Company case,69 and some reaction from this point was probably to be anticipated.

United Fuel Gas Co. v. Railroad Comm. of Ky.,70 involved valuation of gas rights covering a total of more than eight hundred thousand acres, a relatively small part of which was held in fee. Geological and engineering experts had computed an estimate of the total volume of gas underlying the proven and probable territory. These calculations had been supplemented by testimony that in Pittsburgh there was an unregulated market for industrial gas, which could always be maintained in competition with coal and coal

68 262 U. S. 553, 43 S. Ct. 653, 67 L. Ed. 1117 (1923).
68 During the oral argument of the United Fuel Gas Co. appeal, the following discussion occurred:

"Mr. Justice McReynolds: What do you mean by the public investing in these lands?

"Counsel for Protestants: I mean, carrying the cost of the delay rentals until gas has been produced.

"Mr. Justice Van Devanter: That does not mean any more than it would if you said that the public had paid the expenses of the street car company here in the District of Columbia, does it?"

products. Other experts familiar with the production and marketing side had given opinions also based on an assumed gas supply available for unregulated sale at predictable prices. On the other hand, only about a sixth of the entire acreage was proven territory. After characterizing the proof offered as "wanting in probative force", the Court held:

"On the record as made, appellants have failed to present any convincing evidence of value of their gas field which would enable us to assign to it any greater value than that which they appear to have assigned to it on their books. This book value, therefore, may be accepted, not as evidence of the real value of the gas field, but as an assumed value named by the appellants, which on the evidence presented cannot reasonably be fixed at any higher figure."71

Accordingly, since the burden of proving the value in a confiscation case rested on the utility, and had to be "supported by clear and convincing evidence", the action of the lower federal court in denying an injunction against the commission rate-making was unanimously affirmed. It must be borne in mind, however, that the company had roughly but seventy thousand operated acres,—with more than ten times that much unoperated,—and it was allowed by the Court to include the latter in its rate base and their delay rentals in operating expenses. This decision was thus conclusively significant for several reasons. In the first place, the issue as to capitalization was definitely settled, in the affirmative; the value of leaseholds had to be taken into account, in natural gas regulation. Next, precise evidence was essential in the establishment of the valuation claimed, for the testimony as to a computed value for gas reserves in the ground based on geological estimates and predicted future prices could not be accepted. Nevertheless, the inference was left that had market value been proven, by adequate sales and purchases of leases, its adoption would have been approved. Finally, reasonable accumulations of undeveloped acreage might be sustained, where the operator's business required such prudence and foresight.

With the United Fuel Gas case, a new chapter began in leasehold valuation. Litigation was henceforth to turn on the adequacy of the proof offered by the operator in support of its position as to present fair value. To be sure, in Los Angeles Gas & Electric Corp. v. Railroad Comm. of Cal.,72 the Chief Justice observed as to

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71 278 U. S. 300, 318.
public utility properties that "the criteria at hand for ascertaining market value, or what is called exchange value, are not commonly available." Still in subsequent rate cases, efforts were diligently made to produce the "clear and convincing evidence" required. Dayton Power & Light Co. v. Public Utilities Comm.,73 brought the problem to the Supreme Court once more. In addition to the customary forecasts of production capacity in an unregulated market, there were now instances of actual sales of other leaseholds in sporadic transactions, at disparate prices. The Ohio Commission had valued producing acreage at twenty-five dollars an acre, following the precedent of the Logan case74 and disregarding book cost. It was held without dissent that the burden of proof as to confiscation on the basis of the old rates had not been sustained. A few weeks later, Columbus Gas & Fuel Co. v. Public Utilities Comm.75 saw the reversal of new rates which had been established without taking into consideration amortization allowance. The Ohio Commission had properly provided such a depletion fund, but this item was stricken out on review by the Ohio Supreme Court.76 The opinion of Justice Cardozo was emphatic in holding such rate-making confiscatory:

"To withhold from a public utility the privilege of including a depletion allowance among its operating expenses, while confining it to a return of 6 1/2% upon the value of its wasting assets, is to take its property away from it without due process of law, at least where the waste is inevitable and rapid. . . . Plainly the state must either surrender the power to limit the return or else concede to the business a compensating privilege to preserve its capital intact."

As to delay rentals upon leases in reserve, that same jurist ruled in both the Dayton and Columbus cases an adequate amortization allowance must suffice. Moreover, unoperated leaseholds should not in fairness be capitalized "until present or imminent need for use as sources of supply" had "brought them into the base upon which profits must be earned." Incidentally, the last in the series of this appeals, West Ohio Gas Co. v. Public Utilities Comm.77 contained an important dictum as to the alleged monopolistic character of natural gas.

74 121 Ohio State 507, 509, 169 N. E. 575 (1929).
76 137 Ohio St. 109, 187 N. E. 7 (1933).
77 294 U. S. 63, 72, 55 S. Ct. 316, 79 L. Ed. 761 (1935).
"The suggestion is made that there is no evidence of competition. We take judicial notice of the fact that gas is in competition with other forms of fuel, such as oil or electricity."

The direct issue of leasehold valuation has not again reached the Supreme Court, although the recent decision in the Natural Gas Pipeline case78 is indicative of the Court's interest in the subject. Chief Justice Stone, who wrote the opinion in United Fuel Gas Co. v. Railroad Comm.,79 again spoke for the majority; and specifically observed that the Federal Power Commission had here taken the operator's statement as to the present value of the gas reserves. On the whole, the comment is rather neutral as to the commission's action:

"And the allowed 'present value' of leases as of June 1, 1939, $13,334,775, is approximately $4,000,000 more than book cost, even without taking into account a substantial reduction for depletion reserves of $1,152,854, which the companies had accrued on their own books by the end of 1938.80"

Nothing was said about undeveloped acreage, nor was there any court reference to the inclusion of delay rentals in some rate-making category. As to amortization allowance, however, it was ruled that the prior book charges for depreciation, depletion and retirements, set up on the company books during the unregulated period prior to the Natural Gas Act of 1938, were properly to be considered by the commission in calculating the 1938 rate base. In other words, present value of leaseholds in 1938 had to be reckoned in the light of past depletion accounts, so that amortization charges over the life of the gas fields could be spread over all past and future years of production. Operating expenses absorbing post-1938 amortizing would thus be materially reduced.

One may therefore sum up the Supreme Court holdings as being inconclusive on the issue. To be sure, leasehold values must be capitalized; but the quantum of proof and the type of expert witness required seem difficult of attainment,—when anything other than book cost is sought. Suppose, as in the Ohio cases and

70 278 U. S. 300, 49 S. Ct. 150, 73 L. Ed. 390 (1929). It is interesting to note that Chief Justice Stone wrote the first (United Fuel Gas) and the last (Natural Gas Pipeline) of these valuation decisions. In between, Justice Cardozo wrote the opinions in the Dayton, Columbus and West Ohio cases.
80 62 S. Ct. 736, 744, 86 L. Ed. 699 (1943). In this connection, it is important to compare the result under the Uniform System of Accounts for Gas Utilities, adopted (1939) by the Public Service Commission of West Virginia.
the new *Natural Gas Pipeline* decision, some sort of present value is in fact adopted by the administrative body: that is not reversible error. Nor does the administrative ruling violate the Fifth or Fourteenth Amendments by excluding present value altogether, provided there is not clear and convincing proof to the contrary. And the latest word as to unoperated leases is Cardozo's language in the *Columbus* case:

"Leases bought with income, the proceeds of the sale of gas, and thus paid for in last analysis through the contributions of consumers, ought not in fairness to be capitalized until present or imminent need for use as sources of supply shall have brought them into the base upon which profits must be earned. To capitalize them sooner is to build the rate structure of the business upon assets held in idleness to abide the uses of the future."  

It must also be remembered that delay rentals, according to the Cardozo opinions, are not to be charged to operating expenses in instances where the amortization allowance makes adequate provision for acquiring new leases out of current earnings.

During this second period of case-law, following the *United Fuel Gas* decision, local intrastate decisions likewise became somewhat more doubtful as to claims for present value. A lower federal court, for example, followed this attitude of *non lus deficit sed probatio* in *Wichita Gas Co. v. Public Service Comm. of Kan.*, by refusing to give weight to evidence of market value of leaseholds. Yet that court did allow cost of both operated and unoperated leases, amounting to about half the utility’s contention; and, what is even more striking, delay rentals on all unoperated acreage were there included in operating expenses, despite the fact that only three and a half per cent of the company’s 1,200,000 acres were indeed operated. In West Virginia, Judge Hatcher analyzed further the type of evidence necessary to sustain the market value of leaseholds, stressing the effect of paying delay rentals out of operating expenses (as in the *Natural Gas* case) and emphasizing the right of eminent domain conferred on operators by the West Virginia public. As to the latter, he suggested "that high privilege must now be considered in favor of the public." Presum-

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82 It is the proof, not the substantive law, which is lacking.
84 City of Charleston v. Public Service Comm., 110 W. Va. 245, 255-6, 159 S. E. 38 (1931).
85 95 W. Va. 557, 121 S. E. 716 (1924).
ably, however, the "public" would include merely citizens of the producing state and not consumers outside. A few years later, *Wheeling v. Natural Gas Co.* held that the evidence of the experts as to market valuation for the leases was "not of that convincing character" required by the decisions:

"In these days of over production in the gas fields, such evidence, at most highly speculative, should be of the strongest possible character; otherwise the safeguards set up by the courts would become meaningless."

Furthermore, in the light of the *Columbus* case, there had been error, according to the Supreme Court of Appeals, by including all the undeveloped acreage in the rate base. As to delay rentals already paid on surrendered leases and expenditures for dry holes in the past, however, it was squarely held that such items were "comparable to charges for maintenance and replacement of physical properties, and therefore not deductible from the appreciable value of the current leaseholds, where such a value is established."

The Ohio court re-examined the problem in *Columbus Gas & Fuel Co. v. Public Utilities Comm.* where the commission had rejected the company's evidence as to market value but had fixed the value substantially in excess of the utility's book value, as in prior cases. This result, it was now decided, was erroneous, for only the present book value of class 1 leaseholds should have been included,—with all delay rentals analogously excluded. As noted above, the case was reversed by the United States Supreme Court, because amortization charges had not been allowed. The most important Ohio decision in recent years has been *East Ohio Gas Co. v. Public Utilities Comm.* in which developed territory was valued at seventy dollars an acre; and the Ohio court unanimously affirmed such a valuation. This leasehold value included not only cost of acquisition and delay rentals on later-productive leaseholds: but also took into account that cost and those delay rentals as to unoperated leases cancelled in the process of exploration,—in the average amount of fifty-two unoperated acres cancelled to one acre found to be productive. In short, the total expense for unproductive abandoned leaseholds, as above, had to be charged back as a loss and represented "a wasted or wasting asset" within the rate base.

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88 115 W. Va. 149, 164-165, 175 S. E. 339 (1934).
89 127 Ohio St. 109, 157 N. E. 7 (1933).
89 137 Ohio St. 255, 26 N. E. (2d) 599, 35 P. U. R. (N. S.) 158 (1940).
Meantime, delay rentals on unoperated but retained leases were not to be capitalized until operated, in line with the Cardozo dictum; but such rentals would be accounted as operating expense.

Sifting down all this case-law for both the periods before and after 1929, certain propositions seem clearly established. In the first place, no court of last resort has refused to capitalize gas leaseholds, although the precise method of capitalization still remains open. Secondly, it has not been held as a matter of federal constitutional law that leases must be valued merely at book cost. Thirdly, unoperated territory ought not to be capitalized until there is "present or imminent need" for its use. Fourthly, unusual proof by "clear and convincing evidence" is requisite to support the claim of market valuation. And, finally, delay rentals on reasonable quantities of unoperated leaseholds can be included within operating expenses, (unless the amortization charge be adequate to carry them). It is to be noted that the reversionary interest of the grantor of the gas profit a prendre, as well as the economy of the producing state, has scarcely received judicial recognition, and there is in no sense a complete picture perfectly proportioned to the legal eye.

One might suggest a resort to the modern economists on so important an issue of value; yet even with the occasional art many possess "of communicating their meaning circuitously through a long succession of associated ideas," it is doubtful if much help can be gotten here. With them the doctrine of prudent investment is a kind of proof charge; any legal result that stands that test will stand any test. Matters such as mining development or Pennsylvania v. West Virginia, or perhaps even the effect of the gold clause decision 91 on utility financing, can doubtless be regarded as well beyond their ordinary ken. The unification of the social sciences has not yet progressed to the stage where valuation of a speculative wasting asset can be measured with certainty for rate-making purposes, with a nice balance between the conflicting claims of operator, reversioner, producing state and outside consumer. Yet what is the prudent investment of each one of these? No answer can be expected, until the economist is trained in the law or the jurist in economics. 92 It might be well here to quote a leading authority in the economics field: 93

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92 Perhaps Justice Brandeis came closest to this latter achievement.
93 2 Bonbright, Valuation of Property (1937) 1165. Justice Black quoted
"It is by no means clear, however, that any rule of uniformity, to be imposed on all legislatures and applied to all types of utilities, is required by the spirit of the Constitution. The concern of the federal courts should be simply to prevent grossly unfair treatment of investors. . . . Problems of fairness to investors arise only because of the ex post facto feature in American rate regulation. . . . But it is the function of the courts simply to see that this shift from an indefinite and impractical standard be made without doing violence to the reasonable expectations of present investors." The foregoing is peculiarly apposite as to gas leaseholds, both by reason of their unique legal incidents and because the Natural Gas Act has now been enacted in order to regulate, as between the states, property rights that were originally wholly-unregulated investments in wasting assets.

Apart from real property law and administrative practice, the valuation of leaseholds is vitally concerned with geology as well, and the wealth of geological and engineering material on the question is significant.94 For example, sound operating practice requires careful attention to the "average yield of gas per acre or per acre-foot per pound-drop in formation pressure,—to the average thickness and porosity of various gas-bearing sandstones,—to the average drilling and operating costs per well per year,—to the field prices for gas,—and to the annual consumption of gas per domestic user in different localities."95 As to the speculative element, the small operator who drills a few wells usually carries a higher percentage of capital risk than the large operator who drills many wells and whose ratio of dry holes is normally lower. Hence because of the concentrated risks, the profit or loss of the former ordinarily represents a much greater proportion of the total investment: for him the discovery value may legitimately be higher on account of the excessive risk.96 Moreover, the geologist or engineer looks into the cost factors such as development expenditure, the total quantity of gas that can possibly be extracted,97 the overhead in such extraction, the various taxes (and especially those on sever-

94 See the various footnote references in Stephenson, Valuation of Natural Gas Properties, [contained in GEOLOGY OF NATURAL GAS, published by the American Association of Petroleum Geologists (1935)]. As illustrative of a recent article, see Terry, The Valuation of Oil and Natural Gas Properties as Distinguished from Mines (1940) 21 MINING AND METALLURGY 227.
95 Stephenson, supra n. 94, at p. 1013.
96 Stephenson, supra n. 94, at p. 1014.
97 Parsons, Accurate Estimates of Gas Reserves, OIL AND GAS JOURNAL (May 10; 1928) 86; Davis, supra n. 13.
ance), the rental or royalty, the well-mouth price, and the probable rate of production. Ideally, perhaps, the high rate of production involves lower operating costs; but the greater hazards as to daily supply of gas, inability to meet peak-load conditions and danger to individual wells through subsurface change contributes to higher gas costs. In addition to these considerations, there is the peril of drainage: in any field gas migrates from areas of high to those of low pressures, and this migration occurs regardless of property lines.98 And the problem of reservoir control comprises ease-histories of the various wells, casing procedures and cementing programs, methods of operation, the distance the sands have been penetrated, composition of the gases in different horizons and similar features. The geologist must also be familiar with the arbitrary courtroom grading of leaseholds into classes 1, 2, 3 and 4.99 Ways of computing depletion, (particularly those based on the decline in average rock pressure),100 have been worked out in considerable detail; each field should be depleted as a separate unit, and note made as to each reservoir where there is more than one producing horizon. Finally, the operator's market must be divided between domestic and industrial consumers, paying heed to competing fuels and recalling that price generally plays a far more important part than fuel efficiency.101 Reconciliation of all such geological and engineering phases of valuation with the theoretical concept of prudent investment is no easy task.

Particularly is the statement true in West Virginia102 where

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98 The problem of drainage has been recognized over and over again by our courts. See, for example, Trimble v. Hope Natural Gas Co., 117 W. Va. 650, 187 S. E. 331 (1936).
99 Roughly, Class 1 includes acreage actually operated or so close thereto that existence of gas has been demonstrated; Class 2 includes acreage contiguous to Class 1, with geologic and engineering data indicating that the productive area will so be extended; Class 3 is territory with at least an even chance of production, according to general geologic conditions; and Class 4 comprises regions within a general gas-producing territory, that have not yet been condemned by dry holes, with sufficient chance of production to justify delay rentals.
100 Rawlins and Schellhardt, Back-Pressure Data on Natural-Gas Wells and Their Application to Production Practices, U. S. BUREAU OF MINES MONOGRAPH No. 7 (1935); Cutler, Estimation of Underground Oil Reserves by Oil-Well Production Curves, U. S. BUREAU OF MINES BULLETIN No. 228 (1924); Beal, The Decline and Ultimate Production of Oil Wells, with Notes on the Valuation of Oil Properties, U. S. BUREAU OF MINES BULLETIN No. 177 (1919); Johnson and Berwald, Deviation of Natural Gas from Boyle's Law, U. S. BUREAU OF MINES TECHNICAL PAPER 539 (1932); Katz, A Method of Estimating Oil and Gas Reserves (1936) 118 TRANS. A. I. M. E. 18.
101 This is perhaps the salient factor in industrial use.
102 Davis, supra n. 13; Sisler and Tucker, supra n. 13.
producing sands are continuously variable in thickness and inclined to be lenticular in character, with porosity differences causing irregular areas of production. There is a widespread distribution over gently-sloping geological structures, without the concentrated pools on structural highs one finds in western fields. Erratic sand conditions naturally increase drilling hazards, though the existence of several producing horizons somewhat balances the chances. And West Virginia leaseholds generally produce lower open-flow volumes; thus the delivery over longer periods of time sends up the overhead charges. The important geological factor in all this is that these gas pools are so limited in extent and separated by such unproductive areas,—occurring as they do (along anticlinal structures) on synclines, on the flanks of anticlines and on the crests. It is that very unpredictable quality which, more than anything else, creates so high a discovery value for producing leaseholds. Furthermore, existing wells must always be adequate to serve any outside market, the demands varying in extreme fashion between prosperity and depression periods and between winter and summer consumption. Unusual peak demands inevitably entail increased drilling activity, with seriously-large expenditures for exploration and development to replenish the abnormal depletion. For example, every large-scale operator must do a certain amount of "wild-cating". Gas properties then materially appreciate even more in value; and the appreciating process continues on indefinitely as the Appalachian fields decline in production. The average layman who has read during the past decade or two of the enormous amounts of gas wasted in the southwest forms the impression that the nation’s gas reserves are inexhaustible or nearly so, and hardly realizes how rapidly the eastern supply is running out. It seems incredible to him that the fate of the Indiana gas belt can ever prove to be the future in store for West Virginia.

For all these reasons geology as well as substantive administrative law must play a part in leasehold values. The question next arises as to how low such valuation can be constitutionally fixed, simply in order to enable interstate consumers to enjoy cheap gas

103 Sisler and Tucker, supra n. 13, p. 993.
prices. Of course, it would merely be arguing in a circle to assert the operator's *profit a prendre* is worth no more than the capitalization of net income from whatever gas rates may ultimately be established by the Federal Power Commission. The whole difficulty is, what are the proper rates; and the Natural Gas Act specifically requires the Commission to determine "fair value" in making up the rate base. One must accordingly start with the valuing of gas properties, before even considering the important subsidiary issues of operating expenses and rate of return. It is suggested, however, in the course of Justice Black's concurring opinion\(^\text{107}\) in the *Natural Gas Pipeline* case that rate-making is essentially a sort of legislative price-fixing, with the consumer interest of paramount significance. If that be so, then the nature or extent of the rate base may not in the long run matter a great deal so long as distant interstate customers get their gas for industry or home at the price they are willing to pay. But there is as yet no indication that the majority of the Supreme Court will eventually go that far, at least in an instance where the producing state’s wasting assets would be exported at a grossly-unfair utility valuation.

The immediate occasion for this present enquiry into the valuing of gas leases is a recent advocacy of the book cost theory by counsel for the Federal Power Commission. In discussion of depletion charges, that theory was urged as the best method of protecting outside consumers:

> "When gas producing acreage is priced at original cost, there is no enhancement of the depletion expense allowance to cover the costs of exploration and development. The rate payers, therefore, reap the advantage of the discovery value. . . . [Counsel] has recommended that the original cost of producing leases be included in the rate base, in contradistinction from the 'market value' of producing leases."

In other words, if the operated territory proves productive, the operator is then allowed in his rate base merely the nominal cost of original acquisition of those acres under which the gas was later found by testing, along with the actual expense of drilling the wells. There is no *discovery value* for either lessor or lessee; apparently the gas at once belongs to the interstate customer, subject only to the payment of transportation charges and a reasonable return on the diminutive rate-base of nominal costs and drilling expense. No doubt it might be seriously contended that the operator is

\(^{107}\) 62 S. Ct. 736, 749, 753, 86 L. Ed. 699 (1942).
amply safeguarded against financial loss by including within the category of operating expenses (1) delay rentals on undeveloped leaseholds, (2) dry-hole losses, (3) disbursements for nonproductive acreage that is abandoned and (4) the other exploration costs. Thus, one can say, the utility has obtained a fair return on the prudent investment basis. As regards the gas properties themselves, the same argument would assume that the consumers have in the past bought a substantial equity in these particular holdings, simply by paying prices that included delay rentals and drilling costs. The fundamental fallacy in it all is the complete failure to consider the reversionary interest of the lessor or the economy of the producing state, not to mention the arbitrary and retroactive policy of viewing the profit a prendre on the basis of an investment of decades before, rather than according to its fair value in 1938.

*Pennsylvania v. West Virginia*\(^{108}\) held that a natural gas producing state could not by legislation require preference in its use to be accorded local consumers, and thereby withdraw a large volume of export gas from an established interstate current. Still the decision did not in any way involve interstate price-fixing, nor did it go so far as to foreshadow an attempt to jeopardize that state’s economy by harsh undervaluation of operated leaseholds. Now under the Natural Gas Act no interstate producer can abandon either facilities or service\(^{109}\) without the Commission’s approval, so the *Pennsylvania v. West Virginia* doctrine has become statutory law. The operator cannot in the future withdraw from that traffic, no matter how strictly interstate rate-making may be developed,\(^{110}\) provided only gas reserves hold out. In such a fashion producing leaseholds have become affected with a public interest; and lessors and operators have devoted their gas rights to an interstate public use. In the past it was possible for operators to contract out of the

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\(^{110}\) In the Columbus case, Justice Cardozo said (292 U. S. 398, 407): “If the company is not satisfied to have the depletion allowance thus applied in renewal of its life, it may divide the fund up among the stockholders and wind the business up." The Natural Gas Act has modified this dictum. But see Railroad Comm. v. Eastern Texas R. R., 264 U. S. 79, 44 S. Ct. 247, 68 L. Ed. 569 (1924); and Moore v. Lewisburg & R. Elec. Ry., 80 W. Va. 653, 93 S. E. 762, L. R. A. 1918 A 1028 (1917), noted in (1918) 3 CORN. L. Q. 311-313 and (1917) 3 VA. L. REG. (S. S.) 623. As to inns, in 1623 the King’s Bench held that if an innkeeper “taketh down his signe, and giveth over the keeping of an inn, then he is discharged from giving lodging.” GODBOULT 355, pl. 440. Cf. Note (1923) 32 YALE L. J. 75.
Supreme Court's ruling: export agreements for the benefit of outside consumers were expressly made subject to a usual priority in favor of domestic users. That avenue of self-help has been effectively closed by the terms of the 1938 Act; and gas will presumably move in interstate commerce as the commission may decide and under its terms.

What is the economy of the producing state that should be considered here? Briefly, it is the interest of that state in conserving its natural resources—so far as Pennsylvania v. West Virginia will permit—and in their orderly marketing so "that their true value may be returned to the state's total resources" as these wasting assets are consumed. In Railroad Commission v. Rowan & Nichols Oil Co., the United States Supreme Court recently held:

"If these wells, most of them small, were restricted to production on the basis of an hourly potential formula, it might be unprofitable to operate them at all. Not only are the individual interests of these small operators involved, but their effect upon the state's economy is an appropriate factor to be taken into account when plans are devised to keep the wells open."

If the producing state's interest be borne in mind, a fair value must be assigned to the operator's profit a prendre and to the underlying gas reserves, that will bring prices sufficient to keep the wells open. Otherwise, reduced valuations will have the untoward effect of making marginal wells less profitable, and perhaps of bringing about surrender of operated leaseholds even before customary abandonment pressures are reached. Once such a well has been given up and the casing pulled, the remaining gas is probably lost forever. To put the proposition another way—unreasonably low valuing of gas rights will almost certainly conflict with modern statutory ideals of conservation in effect elsewhere, since the overhead of small wells cannot survive rate-base reduction. And wholly apart from the unnecessary waste that may follow any policy of writing off the true worth of the operator's incorporeal right and appraising it only at book cost, the state may properly urge that its irreplaceable assets should not be deliberately under-

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111 The writer is in agreement with the views advanced in the Brief on behalf of the State of West Virginia, filed with the Federal Power Commission a few months ago, by the Governor and the Attorney General of West Virginia. See Price, THE FUTURE OF NATURAL FUELS IN WEST VIRGINIA (1940).
112 310 U. S. 573, 582, 60 S. Ct. 1021, 84 L. Ed. 1368 (1940), per Frankfurter, J.
113 Williams, supra n. 105.
valued, particularly so as to build up and sustain industries elsewhere. It is true that one state may not "keep its coal, the north-west its timber, the mining states their minerals" as the Supreme Court\textsuperscript{114} put it; yet there is nothing in that dictum which would enable the federal government to take away those resources without reasonable compensation. The analogy is far closer here to the law of eminent domain than to usual rate-making: after all, the ordinary utility normally retains its capital assets during the period of its regulation. Unless the respective legal estates of reversioner and operator are carefully taken into account, the ownership of each is divested at a fictitious price; and their state as guardian of the public interest\textsuperscript{115} may legitimately protest. Finally, the state's tax revenues are obviously endangered by a depreciated rate base, since both property and production levies depend directly on the value of the gas lease.\textsuperscript{116} If either the production is reduced by abandoning wells or the proceeds of gas sales diminished by inter-state rate-making, the fiscal position is seriously disturbed.

A word might be added, too, as regards the claim of the lessor, whose reversionary interest in the gas might be lost altogether if the small well were ultimately surrendered and plugged. Surely, as owner in fee of the gas, he should be represented in some way during the rate proceedings: it is his gas which is being severed and then transported in interstate commerce. Where his compensation is in the nature of a gas well rental for the producing \textit{and paying} life of the field, that rent-receiving reversion ought to justify recognition in leasehold valuation. \textit{A fortiori}, if the lessor has stipulated for an "eighth" gas royalty, the export price becomes a matter of even more vital concern to him. It is difficult to infer that the lease contemplated an eventual valuing of both \textit{profit a prendre} and reversion on the basis of the book cost, comprising the original nominal consideration and the later development expense. In that event, the lessor would no doubt be surprised to find that he had no legal claim to any part of the discovery value.\textsuperscript{117}


\textsuperscript{116} See W. VA. REV. CODE (1931) c. 11, art. 6, §§11, 14 and 16; and c. 11, art. 13, §§1, 2 and 2a.

\textsuperscript{117} As to opinion evidence regarding lease values, see Millan v. Bartlett, 78
It is a truism recognized by most authorities that increasing costs are inevitable in natural gas production, yet unfortunately there is no remedy in sight. Certainly book-cost leasehold valuation is not the solution. If there is to be legislative rate-making, it should be analogized rather to bituminous coal price-fixing, with the ideals of conservation and investment stability linked up to the concept of consumer protection. Admirable in tone and matter as the Natural Gas Act may be, the history of Appalachian gas fields would have well repaid an attentive perusal by the draftsmen of that statute.

Doubtless all these perplexing questions as to valuation of gas profits a prendre and as to the implications of Pennsylvania v. West Virginia will fairly be worked out in time by the Federal Power Commission and the reviewing courts. Perhaps, in the light of the two recent Supreme Court decisions, the present observations are too near the canvas to see the picture; at the proper distance phases that seem irrelevant and even harsh will probably fall together as in a perfect symmetry. But Lord Mansfield 'never liked law so well as when it was like equity'—and here, if ever, equitable principles should control.

W. Va. 367, 89 S. E. 711 (1916), syl. 4. An eminent member of the West Virginia bar, in arguing the issue of leasehold valuation before the United States Supreme Court, commented on book cost in these terms: 'There is some testimony that leases have been taken at a certain figure,—that is, that that is what has been paid to the landowner for getting leases. Nobody pretends, nobody can pretend, that you could go out in West Virginia today and assemble a similar block to this; and we are not compelled to assume for purposes of valuing, that we surrender today the ownership we have enjoyed since 1911, return the property to a pioneer condition and go out to consult with the individual mountaineer, as those did who first got it together. And even if they did that, the West Virginia mountaineer has learned something in the course of the last twenty-five years.'

118 Wyer, LOUISIANA'S NATURAL GAS SITUATION 3: 'The universal experience in all natural gas fields in North America has been that:
1—As the wells are drawn on the pressures go down and the volume delivered decreases. The operating cost is not lowered and this declining volume thus increases the cost per unit of output from the wells.
2—As the well pressures go down gas compressors must be installed thus obviously increasing the cost.
3—As the rock pressures still further decline, the capacity of installed compressors is decreased, as shown in the preceding section.
4—New wells drilled in the field will average a lower delivering capacity than original wells thus giving a higher investment per unit of output.
5—The cost of carrying reserve acreage for future drilling operations because of accumulated effect of the interest increases and makes well drilling operations more expensive than those in the earlier period of field development.
6—All conservation measures cost money and as more conservation methods are used, as the field becomes older, this increases the cost of the gas.'

120 Dursley v. Fitzhardinge Berkeley, 6 Ves. 251, 260 (1801), per Lord Eldon, C.