TABLE OF CONTENTS.

OPINIONS BELOW	1
JURISDICTION	2
QUESTIONS PRESENTED	2
STATEMENT	3
1. Hope's Business and Properties	3
2. Hope's Rate History	6
3. Hope's Financial History	9
4. Proceedings Before the Commission	13
SUMMARY OF ARGUMENT	15
ARGUMENT	19
I. Rate Base	19
A. Summary of the Evidence and the Commission's Determinations	19
1. Costs New	19
2. Accrued Depreciation	24
3. The Commission's Rate Base Determinations	27
B. The Rate Base Calculation of the Commission Started with a Figure that is Over \$17,000,000 Below the Actual Original Cost of Hope's In- terstate Physical Properties and Leaseholds	30
1. Statement of This Issue	30
2. Meaning of Original Cost	35
(a) Meaning of original cost prior to the passage of the Natural Gas Act	36
(b) The provisions of the Natural Gas Act support Hope's construction	38
(c) Hope's construction of "original cost" was adopted in 1939 by the Commission in its uniform system of accounts	39

	3.	Bas of	e Inc Oper	nmission consisten ating E ated Hop	${f xpenses}$	Its D s Has	eterm Arbi	ination trarily	42
	4.	Bas Cos on t Rec	e of ting the G oupe	Any C Over \$1 round the d by Ho counds.	onsider. 7,000,00 nat The pe from	ation 00 is 1 se Cos 1 Cons	of Pr Not Ju ts hav sumers	operty astified re been or on	46
С.	Or Co	der i ntra	Rests ry to	Base on Disregathe Nat Requiren	ards Pro tural Ga	esent dis Act	Value and t	and is o Con-	53
	1.			mission 's Prope					53
	2.	The Not	Nati Low	ural Gas er Than	Act Re Presen	quires t Valu	a Rat ie	e Base	55
	3.	tuti Fixe Pres	on as ed, to sent	rt Has L Requiri Allow a Value Vot Be R	ng Utili at Least and t	ty Rat t a Fa	tes, Ho ir Ret Constr	wever urn on uction	60
		(a)		Legal B Is Sour					60
		(b)	sion Part gard a Fa	sideratio to Justi icular R lless of air Retu	fy the ate Ma Whethe rn on H	Applicking Transfer Its Present	cation Cheori Rates t Valu	of Its es Re- Allow ie Are	
									66
			` ,	Experie					67
			` '	Accurac					73 75
				Stability					75
			(4)	${f Investor}$	Appeal	l 	• • • • •	• • • • •	77

	III	
	D. The Commission Arbitrarily Deducted in Its Rate Base More for Accrued Depletion and Depreciation than Existed in Fact	80
	E. Summary and Conclusions as to Rate Base	90
II.	Operating Expenses	93
	A. Annual Allowance for Depreciation and Depletion	93
	B. Allowance for Return on Hope's West Virginia Distribution Properties	99
	C. The Commission's Exclusion from 1940 Operating Expenses of \$165,963 for an Experimental Deep-Test Well	100
	D. Return from Gasoline and Butane Operations of Affiliate	101
	E. Federal Income Tax	102
III.	Rate of Return	106
IV.	Viewed in Their Entirety the Rates Fixed by the Commission Are Too Low by Any Standard	113
	A. The Commission's Prescribed Rates Are Too Low by Any Standard	113
	B. The Commission's Rates Are Too Low on the Basis of the Price Allowed for Hope's Produced Gas	116
	C. The Commission's Claims as to the Over-all Reasonableness of Its Order	120
	D. Cleveland's Claim that No Constitutional Question is Presented	125
V.	The Commission's Findings as to Lawfulness of Past Rates	126
	A. The Commission Has No Authority Under the Natural Gas Act to Make These Retroactive Determinations	128
	B. These Retroactive Determinations Are Arbitrary and Invalid	138
CONC	CLUSION	140

APPENDICES:

A. The Legislative History of Section 6 of the Natural Gas Act	141
Summary of the History	142
Statements:	
A. Senate Committee Report on the Public Utility Act of 1935	146
B. House Committee Report on the Public Utility Act of 1935	148
C. Statement by Congressman Lea on the Public Utility Act of 1935 in the House of Representatives, June 28, 1935	14 9
D. Statement by Congressman Cole on the Public Utility Act of 1935 in the House of Representatives, June 28, 1935	150
E. Conference Report on the Public Utility Act of 1935	152
F. Hearings Before the House Committee on the Natural Gas Act	154
G. Statement by Congressman Lea on H. R. 6586 (the Natural Gas Act) in the House of Representatives, April 28, 1937	158
B. Authorities Showing that Original Cost is a Matter of Actual Expenditures, Not of Bookkeeping, and Where Not Shown by Records is to be Estimated	159
C. Analysis of Cases Cited in Commission's Brief (Pages 79-82) Said to "Prohibit Reaccounting and Support the Principles Employed by the Commission" in Determining "Original Cost"	174
D. Table—Direct Costs of Production of Gas (Exclusive of Return) and Increment of Direct Costs Year 1940 Over 1939 (Copy of Table 12 of Cleveland Reply Brief Before the Commission)	183
E. Table—Indicated Rate Reduction Based on Findings of the Commission for the Year 1940 and Reported Changes in Plant, Revenues, and Expenses to December 31, 1942 (Excluding former Reserve Gas Company Operations)	

LIST OF TABLES AND MAP: Hope's Annual Gas Sales*—1937-1940..... 4 Outline Map Showing Hope's Principal Pipe Lines, Compressor Stations and Delivery Points to Interstate Customers 4 Statistics as to Hope's Properties..... 5 Hope's Interstate Rates Which Were Reduced by the 7 Commission Hope's Fixed Assets, Total Sales, Depreciation and Net 12 Gas Income per Books—1926-1940..... Hope's Statement of Existing Depreciation in Its Physical Properties 25 Commission's Rate Base Calculation..... 28 Undepreciated Costs and Values of Hope's Interstate Properties 29 Summary of Differences Between Parties as to Original Cost 33 Comparison of Hope's Actual Exploration and Development Costs with Amounts Allowed by the Commission 101 Comparison of Hope's Actual Federal Income Taxes with Amounts Allowed by the Commission...... 104 Investors' Appraisal of Capital Risk in Various Divisions of the Utility Business......Footnote, 107 Commission's Total Allowance for Annual Return, De-Rate Bases for Hope on California Prudent Investment Method 114 Commission's Staff's Computation of Hope's Net Operating Income from Interstate Business—1937-1940 116 Commission's Determination of Increase in Revenue and Expenses for Interstate Business—1940 Over 1939 119 Net Operating Income under Commission's Rates— 1937-1939 123

^{*}Sales shown on this Table exclude exchange gas included in Hope's sales per books in Table on page 12 (See Ex. 37, 41).

TABLE OF AUTHORITIES.

Cases.

Akron case—Re East Ohio Gas Company, 17 P. U. R. (N. S.) 433 (1937); The East Ohio Gas Company v. The Public Utilities Commission of Ohio, etc., 133 O. S. 212, 12 N. E. (2d) 765 (1938)
Arizona Grocery Co. v. Atchison, Topeka & Santa Fe Railway Co., 284 U. S. 370131, 136
Atlantic Coast Line Railroad v. Florida, 295 U. S. 301 137
Baer Brothers Mercantile Company v. Denver & Rio Grande Railroad Company, 233 U. S. 479 131
Bluefield Water Works & Improvement Company v. Public Service Commission of the State of West Virginia, 262 U. S. 679
Board of Public Utility Commissioners v. New York Telephone Company, 271 U. S. 23
Boise Artesian Water Co. v. Public Utilities Commission, 236 Pac. 525, P. U. R. 1926A, 195 (Idaho, 1925)
Brooklyn Borough Gas Co. v. Prendergast, 16 F. (2d) 615, P. U. R. 1927A, 200 (D. C., E. D. N. Y., 1926) 166
Chicago & N. W. R. Co. v. Commissioner, 114 F. (2d) 882, 886 (C. C. A. 7th, 1940)
City of Erie v. Public Service Commission, 123 Atl. 471, P. U. R. 1924D, 89 (Pa. 1924)
City of Knoxville v. Knoxville Water Company, 212 U. S. 1 (1909)
City of Minneapolis v. Rand, 285 Fed. 818, 822-824 (C. C. A. 8th, 1923)
Cleveland case—East Ohio Gas Company v. City of Cleveland, 27 P. U. R. (N. S.) 387 (1939); The East Ohio Gas Co. v. Public Utilities Commission of Ohio, City of Cleveland v. Public Utilities Commission (2 cases), 137 O. S. 225, 28 N. E. (2d) 599 (1940)
Columbus Gas & Fuel Co. v. Public Utilities Commission of Ohio, 292 U. S. 398

Consumers Natural Gas Co. v. Commissioners, 78 F. (2d) 161 (C. C. A. 2d, 1935), cert. denied 296 U. S. 634	105
Covington and Lexington Turnpike Road Company v. Sandford, 164 U. S. 578	125
Dayton Coal and Iron Company v. Cincinnati, New Orleans and Texas Pacific Railway Company, 239	120
U. S. 446	132
Doyle v. Mitchell Brothers Company, 247 U. S. 179	164
East Ohio Gas Company, The, v. The City of Akron, 81 O. S. 33, 90 N. E. 40 (1909)	6
East Ohio Gas Company v. City of Cleveland, 4 P. U. R. (N. S.) 433 (1934)	7
Euclid v. Ambler Co., 272 U. S. 365	66
Federal Power Commission v. Natural Gas Pipeline Company, 315 U.S. 575	
	174
Garden City v. Garden City Telephone, Light & Mfg. Co., 236 Fed. 693, P. U. R. 1917B, 779 (C. C. A. 8th, 1916)	165
Great Falls Gas Co. v. Public Service Commission of Montana, 34 F. (2d) 297 (D. C., D. Mont., 1929)	30
Great Western Portland Cement Co. v. Public Service Commission of Kansas, 121 Kans. 531, 247 Pac. 881 (1926)	134
Greencastle Water Works Co. v. Public Service Commission of Indiana, 31 F. (2d) 600 (D. C., S. D. Ind., 1929)	30
Greensboro Gas Co. v. Commissioner, 79 F. (2d) 701 (C. C. A. 3d, 1935), cert. denied 296 U. S. 639	105
Grosjean v. American Press Co., 297 U. S. 233	125
Hadacheck v. Los Angeles, 239 U. S. 394	66
Hegeman Farms Corp. v. Baldwin, 293 U. S. 163	65
Helvering v. Wilshire Oil Company, 308 U. S. 90	176
Henderson v. Bryan, 46 F. Supp. 682	66

	VIII
	Hope Natural Gas Company, In re, P. U. R. 1921E, 418 (W. Va. P. S. C. 1921)
	Hope Natural Gas Company v. Federal Power Com- mission, et al., 44 P. U. R. (N. S.) 1, 134 F. (2d) 287 (February 16, 1943)
	Illinois Bell Telephone Co. v. Moynihan, 38 F. (2d) 77, 86, P. U. R. 1930B, 148 (D. C., N. D., Ill., 1930), reversed, Smith v. Illinois Bell Telephone Company, 282 U. S. 133 (1930)
	Indiana Bell Telephone Co. v. Public Service Commission of Indiana, 300 Fed. 190, 197, P. U. R. 1925A, 363 (D. C., D. Ind., 1924)
	Interstate Commerce Commission v. Cincinnati, New Orleans and Texas Pacific Railway Company, 167 U. S. 479
	Kentucky Finance Corporation v. Paramount Auto Exchange Corporation, 262 U. S. 544 125
	Lawton v. Steele, 152 U. S. 133
	Lima, City of, v. The Public Utilities Commission, 106 O. S. 379, 140 N. E. 147 (1922)
	Lincoln Gas & Electric Light Company v. City of Lincoln, 250 U. S. 256 (1919)
	Lindheimer v. Illinois Bell Telephone Company, 292 U. S. 15182, 95
	Los Angeles v. Southern California Telephone Com- pany, 39 Cal. R. Com. 739, 14 P. U. R. (N. S.) 252 (1936)
-	Los Angeles Gas & Electric Corp. v. Railroad Commission, 58 F. (2d) 25650, 174
-	Los Angeles Gas & Electric Corp. v. Railroad Commission of Calif., 289 U.S. 287
•	Louisville, City of, v. Cumberland Telephone and Telegraph Co., 225 U. S. 430
	Louisville & Nashville Railroad Company v. Maxwell, 237 U. S. 94
	Miller v. Schoene, 276 U. S. 272

Minnesota Rate Cases, 230 U. S. 352	61
Monongahela Bridge Co. v. United States, 216 U.S. 177	66
Monroe Gaslight & Fuel Co. v. Michigan Public Utilities Commission, 292 Fed. 139, 147, P. U. R. 1923E, 661 (D. C., E. D. Mich., 1923)	
Morgan v. United States, 298 U. S. 468, 304 U. S. 1	14
Morrisdale Coal Co. v. United States, 259 U. S. 188	66
Mugler v. Kansas, 123 U. S. 623	66
Natural Gas Company of West Virginia v. Public Service Commission, 95 W. Va. 557, 121 S. E. 716 (1924)	177
Nebbia v. New York, 291 U. S. 502	64
New Rochelle Water Co. v. Maltbie, 248 App. Div. 66, 289 N. Y. Supp. 388, 15 P. U. R. (N. S.) 32 (3d Dept. 1936)	172
Northwestern Electric Co. v. Federal Power Commission, 125 F. (2d) 882 (C. C. A. 9th, 1942)	
Northwestern Laundry v. Des Moines, 239 U. S. 486	66
Pacific Gas & Electric Company, 39 Cal. R. Com. 49, 1 P. U. R. (N. S.) 1 (1933)	70
Pacific Gas & Electric Co. v. Railroad Commission of California, 26 F. Supp. 507, 514, 26 P. U. R. (N. S.) 1 (D. C., N. D. Calif., 1938)	166
Pacific Telephone and Telegraph Company, Application of, 33 Cal. R. Com. 737, P. U. R. 1930C 481 (1929)	71
Palo Alto, City of, v. Palo Alto Gas Company, 2 Cal. R. Com. 300 (1913)	70
Pennsylvania Coal Co. v. Mahon, 260 U. S. 393	66
People ex rel. New York State Rys. v. Public Service Commission, 202 App. Div. 576, 195 N. Y. Supp. 174, P. U. R. 1922E, 675 (3d Dept. 1922)	171
Peoples Gas Light & Coke Company v. Slattery, 373 Ill. 31, 25 N. E. (2d) 482, 493 (1940), app. dism. 309 U. S. 634	176

Peoples Natural Gas Co. v. Pennsylvania Public Utility Commission, 14 A. (2d) 133 (Pa., 1940)	124
Powell v. Pennsylvania, 127 U. S. 678	66
Public Utilities Commission of Ohio v. United Fuel Gas Co., 317 U. S. 456127,	140
Railroad Commission of California v. Pacific Gas & Electric Co., 302 U. S. 388	69
Reinman v. Little Rock, 237 U. S. 171	66
San Joaquin Light & Power Corporation, 21 Cal. R. Com. 545, P. U. R. 1922D 595 (1922)	70
Smyth v. Ames, 169 U. S. 466	36
Southern California Edison Company, Application of, 19 Cal. R. Com., 595, P. U. R. 1921D 63	71
Standard Oil Co. v. Maryville, 279 U. S. 582	66
State ex rel. The City of Cleveland v. Court of Appeals, 104 O. S. 96, 135 N. E. 377 (1922)	6
State of Missouri, ex rel. Southwestern Bell Telephone Company v. Public Service Commission, 262 U. S. 276	164
Texas and Pacific Railway Company v. Abilene Cotton Oil Company, 204 U. S. 426	132
Union Bridge Co. v. United States, 204 U. S. 364	66
United Railways and Electric Company of Baltimore v. West, 280 U. S. 234	94
United States v. Morgan, 307 U. S. 183	137
Village of Boonville v. Maltbie, 245 App. Div. 468, 283 N. Y. Supp. 460, 466-467, 14 P. U. R. (N. S.) 93 (3d Dept. 1935), affirmed 4 N. E. (2d) 209 (N. Y., 1936)	171
Village of Wellsville v. Maltbie, 257 App. Div. 746, 15 N. Y. Supp. (2d) 580, 32 P. U. R. (N. S.) 436 (3d Dept., 1939)	171
West v. The Chesapeake & Potomac Telephone Co., 295 U. S. 662	100

XI	
West Chicago Street Railroad Co. v. Chicago, 201 U. S. 506	
West Ohio Gas Company v. Public Utilities Commission of Ohio, 294 U. S. 63, 79121, 139	
Wichita Gas Co. v. Public Service Commission of State of Kansas, 3 F. Supp. 722, 726 (D. C., D. Kans., 1930), modified and affirmed, 290 U. S. 561 (1934) 166	
Wilson v. Brown, 11 Pike and Fischer OPA Service 612:17 (Emergency Court of Appeals, July 15, 1943)	
Additional Decisions of Federal and State Commissions appear in Appendices B and C159, 174	
Texts.	
Barnes, "Public Utility Control in Massachusetts,"67, 68	
Wells, Proceedings of the N. A. R. U. C., 1927, pp. 113-114	
Additional Texts are Referred to in Appendices B and C	
Statutes.	
Federal Power Act, Section 208 (16 U. S. C. 824g)57, 59	
General Code of Ohio:	
Sections 614-44 et seq	
Section 3982 6	
Section 3983 6	
Hepburn Act of 1906 (34 Stat. 589, 49 U. S. C. Sec. 15) 131	
Internal Revenue Code, Secs. 23(m), 114(b)(3) 105	
Judicial Code, Section 240(a), as amended by the Act of February 13, 1925 (28 U. S. C. § 347)	

Natural Gas Act:
Section 4(a) (15 U.S.C. 717c(a))
Section 4(e) (15 U. S. C. 717c(e)) 54
Section 5(a) (15 U.S. C. 717d(a))
18, 128, 130, 132, 133
Section 5(b) (15 U. S. C. 717d(b))
Section 6 (15 U. S. C. 717e)
Section 7 (15 U. S. C. 717f)
Section 8 (15 U. S. C. 717g)
Section 14(a) (15 U. S. C. 717m(a)) 130
Section 17 (15 U. S. C. 717p)
Section 19(b) (15 U. S. C. 717r(b))
Section 22 (15 U. S. C. 717u)
Public Utility Act of 1935 (15 U. S. C. 79 and 16 U. S. C. 791-825)
Treasury Reg. 103, Sec. 19.23 (m)-1(f) 105
Hearing before a Subcommittee of the Committee on
Interstate and Foreign Commerce, House of Representatives, Seventy-Fourth Congress, Second Session, on H. R. 11662, pages 28-29 (U. S. Government Printing Office, Washington, 1936) 132
Report of the Senate Committee on Interstate Commerce on the Public Utility Act of 1935, 74th Congress, 1st Session, Senate Report No. 621, page 20
All italiae by may of emphasis in this brief are ours unless

All italics by way of emphasis in this brief are ours unless otherwise noted.

In the Supreme Court of the United States october term, 1943.

FEDERAL POWER COMMISSION, CITY OF AKRON, AND PENNSYLVANIA PUBLIC UTILITY COMMISSION, PETITIONERS,

No. 34

VS.

HOPE NATURAL GAS COMPANY.

CITY OF CLEVELAND,

Petitioner

ntioner,

No. 35

HOPE NATURAL GAS COMPANY,

Respondent.

ON WRITS OF CERTIORARI TO THE UNITED STATES CIRCUIT COURT OF APPEALS FOR THE FOURTH CIRCUIT.

BRIEF ON BEHALF OF HOPE NATURAL GAS COMPANY.

Both of the above cases arise out of the same proceedings below and we therefore file one brief.

OPINIONS BELOW.

The opinion of the Circuit Court of Appeals for the Fourth Circuit (R. IV, 169-207¹) is officially reported in 134 F. (2d) 287. The opinion of the Federal Power Commission (R. I, 16-89) is reported in 44 P. U. R. (N. S.) 1.

¹ In the record citations, roman numerals refer to the volume and arabic numerals to the page.

JURISDICTION.

The judgment of the Circuit Court of Appeals was entered on February 16, 1943 (R. IV, 207). The petitions for a writ of certiorari were filed on April 6, 1943, and were granted on May 17, 1943 (R. IV, 209, 210). The jurisdiction of this Court is invoked under Section 240(a) of the Judicial Code as amended by the Act of February 13, 1925 (28 U. S. C. § 347), and Section 19(b) of the Natural Gas Act (15 U. S. C. § 717r).

QUESTIONS PRESENTED.

(Com. Brief, 2-4; Cleve. Brief, 7-8)2

There are only two ultimate questions in this case. The first is whether the court below properly set aside the reduced rates prescribed by the Commission's findings and order because they are "too low" (Federal Power Commission v. Natural Gas Pipeline Company of America, 315 U. S. 575, 585). The second is whether the court below also properly set aside the Commission's retroactive findings as to the lawfulness of past rates because they are not "within the ambit" of the Commission's statutory authority (315 U. S., 586). These two questions are stated by the petitioners as Nos. 7, 8 and 9.

All other questions are subsidiary to the first. Whether the rates are too low depends upon a proper determination of rate base, operating expenses and rate of return. Petitioners state some of these subsidiary issues in their questions Nos. 1 through 6, but only those as to which they believe the court below erred.

The court below properly set aside the Commission's rate action if "as applied to the facts before it and viewed in its entirety" it produced an "arbitrary result" (315 U.

² These abbreviations refer to the Brief for Petitioners in No. 34 and the Brief of Petitioner in No. 35, respectively. The references thereto under the headings of this brief show where the petitioners discuss the respective subjects here discussed.

S., 586). Accordingly it is necessary to discuss, as we do in this brief, not only the subsidiary questions mentioned by the petitioners, but also the several determinations by the court below supporting its final judgment which are not here challenged by the petitioners and the several other important grounds upon which that judgment can properly rest.

We can not accept the statement in the Commission's brief (p. 2) that the Commission used a "prudent investment" rate base and the resulting implication that it used a prudent investment method of rate making. As we point out in this brief, it used a rate base and method of rate making which viewed in their entirety are arbitrary and unreasonable and produced too low a rate whether tested by the fair value method, or by the prudent investment method, or by any other general standard of reasonableness.

STATEMENT.

(Com. Brief, 4-15; Cleve. Brief, 9-19)

We supplement the statements made in the petitioners' briefs as follows:

1. Hope's Business and Properties.

Hope was organized in 1898 under West Virginia laws. Its business is now, and always its principal business has been, the production, purchase, transmission and marketing of natural gas in that state (Ex. 4, R. I, 107-111). The division of its annual sales between local sales in West Virginia and sales of gas exported from West Virginia is indicated in the following table in thousands of cubic feet, abbreviated as M.c.f. (Ex. 2, 2; Ex. 2B, 33):

³ In accordance with Rule 10 of the Circuit Court of Appeals for the Fourth Circuit the parties below printed as supplements or appendices to their briefs only such parts of the record as they (Continued on next page)

4

Hope's Annual Gas Sales-M.c.f.

	1937	1938	1939	1940*
Total Local Sales of Gas in West Virginia Export Gas Sales:	11,428,353	8,632,673	9,732,983	11,320,325
To East Ohio To Peoples To River To Fayette To Manufacturers	35,074,416 3,506,013 330,644 849,305 4,523,967	30,316,773 2,870,545 222,615 837,986 3,995,563	33,907,672 3,864,104 237,640 840,398 2,500,755	40,376,091 9,738,612 391,859 859,106 2,241,684
Total Export Gas Sales	44,284,345	38,243,482	41,350,569	53,607,352
Total Gas Sales	55,712,698	46,876,155	51,083,552	64,927,677

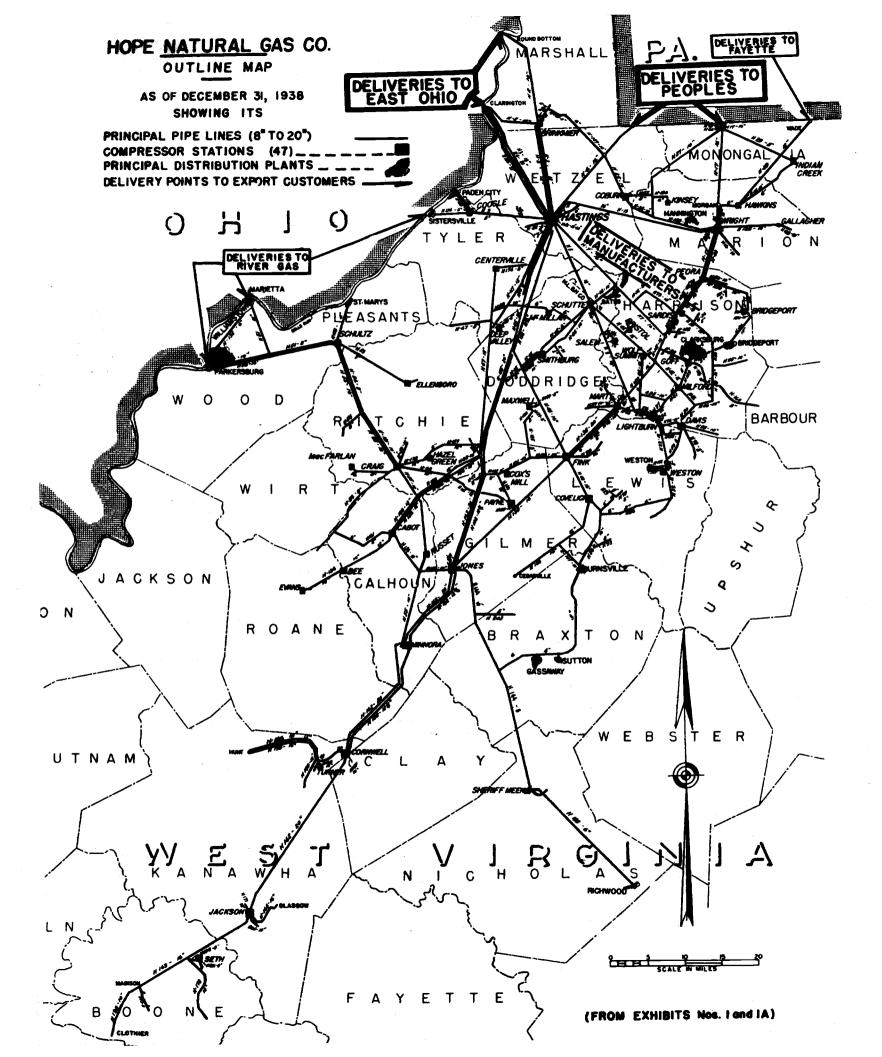
^{*} Excluding sales from former Reserve Gas Company properties, see infra, p. 19.

All five of the export customer companies receive delivery of gas at or near the northern West Virginia state line. The East Ohio Gas Company, The Peoples Natural Gas Company and The River Gas Company, like Hope, are subsidiaries of Standard Oil Company (New Jersey). Fayette County Gas Company and The Manufacturers Light and Heat Company are not. The names of these companies are hereinafter abbreviated as in the foregoing table.

East Ohio distributes the gas purchased from Hope in the northern and eastern parts of Ohio—Cleveland, Akron, Canton, Massillon and Youngstown being the principal cities. River distributes in Marietta, Ohio, but the sales to it are insignificant and since the rates to it were not affected by the Commission's orders no further reference to it will be made. Peoples, Fayette and Manufacturers distribute the gas purchased from Hope in various communities in Pennsylvania, of which Pittsburgh, served in

(Continued from preceding page)

desired the court to read. R. I, II and III as prepared for this Court contain only this matter printed below. Where an exhibit is referred to in this brief and not followed by a reference to the printed volumes in this Court, it will be found in the certified copy of the transcript. Pages of the oral testimony in the original transcript which have not been printed in R. I, II and III are referred to as "Tr."



part by Peoples, is the largest. All of the purchasing companies have local and other supplies of gas. The domestic and commercial consumers on the Hope-East Ohio-Peoples systems totaled almost 710,000 in 1940. (Ex. 4, R. I, 118-126; Ex. 2B, 4).

Between pages 4 and 5 of this brief appears a map showing Hope's principal pipe lines, compressor stations and delivery points to its export customers, taken from Exs. 1 and 1A appearing at R. III, opposite 33. The thousands of small gathering lines and the extensive gas producing fields are not indicated on this map. An idea of the extent of Hope's properties can be gained from the following statistics for 1938 (Ex. 2, 1, 3A; Ex. 4, R. I, 110-111):

	Total Mileage	3 Inch Equivalent Mileage	
Field and Transmission Lines Distribution Lines	4,024 892	9,545 929	
Number of Compressor Stations Total Compressor Station Horsepower		Stations Horsepower	
Number of Gas Wells Owned Number of Vendors' Gas Wells	3,302 12,600	$rac{ ext{Wells}}{ ext{Wells}}$	
Number of Gas Purchase Contracts	340	Contracts	
Operated Leasehold Acreage Owned Unoperated Leasehold	337,790	Acres	
Acreage Owned	647,180	Acres	

A full description of Hope's properties, their history and their method of operation as testified to by Mr. Tonkin, Hope's President, is contained in Exhibit 4 and related exhibits, important parts of which are printed at R. I, 103-142.

⁴ Mileage of pipe of all sizes expressed in terms of equivalent amount of pipe of 3" diameter, for instance 1 mile of 6" pipe being equivalent to 2 miles of 3" pipe.

2. Hope's Rate History.

Because of constant reiteration by petitioners to the effect that Hope has "recouped" a large part of the cost of its properties from the public (Com. Brief, 3, 18, 71, 74, 78-85; Cleve. Brief, 8, 20, 40, 42, 44, 53) it is necessary to say something about the rate history of Hope and of its largest customer, East Ohio. Both companies were organized in 1898 by the same interests, the one to be primarily a producing company in West Virginia and the other to be a distributing company in Ohio (Ex. 4, R. I, 123). Gas rates in Ohio in 1898, as now, were fixed by ordinances passed by municipal councils. If these ordinances were accepted by the utility they became a contract for the period fixed in the ordinance not exceeding ten years. (Ohio General Code, Sections 3982, 3983). After the passage of the Ohio Public Service Commission Act in 1911 a utility dissatisfied with an ordinance rate had the right to appeal to The Public Utilities Commission from the rates fixed by Council (Ohio General Code, Sections 614-44 et seq.).

In 1898 East Ohio procured its first franchise from the City of Akron. The ordinance granting this franchise provided a rate of 25ϕ per M.c.f. for the first 5 years and 30ϕ for the succeeding 5 years. This ordinance was accepted by East Ohio and fixed the rate up to 1908. The East Ohio Gas Company v. The City of Akron, 81 O. S. 33, 90 N. E. 40 (1909).

In 1902 East Ohio accepted a franchise from the City of Cleveland which fixed a rate of 30ϕ per M.c.f. for a period of 10 years. In 1911 a new ordinance was passed by Cleveland and accepted by East Ohio continuing the rate of 30ϕ per M.c.f. for 8 years and increasing it to 35ϕ per M.c.f. for the last two years. This ordinance by its terms expired February 6, 1921. State ex rel. The City of Cleveland v. Court of Appeals, 104 O. S. 96, 135 N. E. 377 (1922).

The rate charged by Hope to East Ohio prior to 1910 does not appear from the record or decided cases. Ex-

hibit 5 shows that beginning March 1, 1910 the rate for gas furnished by Hope to East Ohio was fixed at 50% of the amount paid by East Ohio's domestic consumers, provided that this should not be less than 15ϕ per M.c.f. prior to May 31, 1918 and not less than $17\frac{1}{2}\phi$ for 2 years thereafter. It thus directly reflected the terms of the Cleveland ordinance.

Thus until the early 1920's East Ohio's rates were fixed by contract for periods of ten years in advance and Hope's rates to East Ohio were similarly fixed. Following the large depletion of Hope's fields by World War I and the increased costs of operation that occurred after that period, Hope's rates to East Ohio and East Ohio's rates in Cleveland were substantially increased to approximately present levels as a result of the litigation reported in the case last above cited (Ex. 5, 24).

In 1931 Cleveland passed an ordinance reducing East Ohio's rates which, on appeal, the Ohio Commission sustained. East Ohio Gas Company v. City of Cleveland, 4 P. U. R. (N. S.) 433 (1934). Hope agreed to absorb a part of this rate reduction and reduced its net rate to East Ohio to 38.5ϕ (Ex. 5, 24). In 1937 a provision for a discount on gas purchased by East Ohio for resale to large industrial consumers in order to enable East Ohio to sell industrial gas in competition with other fuels reduced Hope's average rate to East Ohio to 36.5ϕ (Ex. 5, 28).

Since 1937 to the effective date of the Commission's rate reducing order the average rates collected by Hope from its export business were as follows (Ex. 11, 5; Ex. 37, 17, 45):

From	Per M.c.f.		
East Ohio	36.5ϕ		
Peoples	35.5ϕ		
River	35.0¢		
Fayette	31.5 c		
Manufacturers	31.5ϕ		
Average	$\overline{35.9}\phi$		

Differences in the terms and conditions of these various contracts accounting for the differences in prices were fully explained by Mr. Tonkin (Ex. 4, R. I, 112-118).

These export rates have enabled Peoples in Pittsburgh and East Ohio in Cleveland to maintain the lowest domestic natural gas rates in force in any of the 25 largest cities in the United States (Ex. 25, 5; Ex. 50, Table 1).⁵

Nevertheless the Cities of Cleveland and Akron, Ohio, petitioners herein, have attempted to secure still lower rates. In 1932 Akron and in 1937 Cleveland passed rate ordinances prescribing lower rates for East Ohio than those then in force. These being appealed to the Ohio Commission it, among other matters, investigated Hope's interstate rates to East Ohio in great detail and in both cases sustained them as reasonable. Its findings in these respects were substantially sustained by the Ohio Supreme Court in the Akron case and completely sustained by that court in the more recent Cleveland case. Akron case—Re East Ohio Gas Company, 17 P. U. R. (N. S.) 433 (1937);

⁵ These exhibits show the following monthly bills, for 16 of the 25 largest cities, resulting from the normal use of natural gas amounting to 37 therms for cooking, water heating and refrigeration. The remainder of the 25 largest cities have manufactured gas at substantially higher rates.

	Monthly Bill		
Pittsburgh, Pa.	\$1. 93		
Cleveland, Ohio	2.47		
Louisville, Ky.	2.50		
San Francisco, Calif.	2.51		
Los Angeles, Calif.	2.52		
Buffalo, N. Y.	2.67 (Mixed Gas)		
Houston, Texas	2.91		
Cincinnati, Ohio	2.92 (Mixed Gas)		
Kansas City, Mo.	3.51		
New Orleans, La.	3.72		
Denver, Colo.	4.11		
Detroit, Mich.	4.24		
Washington, D. C.	4.72 (Mixed gas)		
St. Louis, Mo.	4.97 (Mixed Gas)		
Minneapolis, Minn.	5.07 (Mixed Gas)		
Chicago, Ill.	5.46 (Mixed Gas)		

The East Ohio Gas Company v. The Public Utilities Commission of Ohio, etc., 133 O. S. 212, 12 N. E. (2d) 765 (1938). Cleveland case—East Ohio Gas Company v. City of Cleveland, 27 P. U. R. (N. S.) 387 (1939); The East Ohio Gas Co. v. Public Utilities Commission of Ohio, City of Cleveland v. Public Utilities Commission (2 cases), 137 O. S. 225, 28 N. E. (2d) 599 (1940); see Exhibits A and C to Cleveland's "Supplement to Petition and Complaint as Amended" filed in Docket No. G-100 herein on March 10, 1939.

While, therefore, Hope's export rates have never been directly subject to regulation, nevertheless their reasonableness was before the Ohio courts in 1921 and before the Ohio Commission and courts in 1931, 1932, 1937 and now again since 1939. In all of these cases the investigations by these bodies of Hope's properties and operations were as complete as in the case of East Ohio.

The East Ohio-Cleveland cases presently pending before the Ohio Commission, frequently referred to in Cleveland's brief (pp. 2, 13, 63) and the Commission's brief (pp. 8, 110-111), arose out of the fact that effective July 1, 1939 Cleveland passed a new ordinance fixing precisely the same rate for natural gas in Cleveland that the Ohio Commission had declared in its order of January 10, 1939 was 13¢ per M.c.f. too low, a holding that was sustained by the Ohio Supreme Court in the last Cleveland case above cited.

3. Hope's Financial History.

The repeated statement in the Commission's brief that "the average annual yield on the average annual amount of Hope's capital stock issued for cash or other assets has exceeded 20%" (Com. Brief, 5, 26), is mathematically correct, but wholly misrepresents the true picture. This computation ignores these facts: Hope paid no dividends for the first ten years of its history and put all of its earnings back into the development of its property (Ex. 81, R. III,

13). In that development it was assisted by an associated company that at one time advanced as much as \$6,265,000 on open account to enable Hope to make this development (Ex. 81, R. III, 16). Thus the total capital stock issued for the first ten years of Hope's history was only \$500,000 although by the end of that time, with advances and earnings put back, it had fixed assets of more than \$10,000,000 (Ex. 81, R. III, 16). In 1908 these advances were liquidated when Standard Oil Company purchased \$4,500,000 additional stock for cash and at the same time a \$5,000,000 stock dividend was declared (Ex. 81, R. III, 13). In any realistic view this stock dividend, representing ten years of earnings on cash capital and cash advances which earnings were reinvested in the business, was issued for cash although the Commission did not so treat it in this computation.

Thus the average annual amount of Hope's capital stock formally issued for cash (\$11,328,133 per Ex. 81, R. III, 15, note) is not in any sense a fair base upon which to predicate a percentum of either earnings or yield. In addition, the 20% computation includes in the earnings out of which dividends were paid almost \$40,000,000 of net earnings that came from sources other than Hope's natural gas service (Ex. 81, R. III, opp. 17, cols. (c), (k) and (l)).

A more accurate measure of Hope's financial history so far as it has any bearing on rates is, we suggest, its history beginning with 1926.

During the first two decades of its existence Hope had available to it the flush production from the thereto-fore untapped gas fields of northern West Virginia. It sold enormous quantities of gas at low costs and low prices. A large part of these low cost sales were for industrial, field and other uses of a wholly non-utility character. In the period from 1904 to 1909 its sales ranged from slightly less than 31 million M.c.f. to about 45 million M.c.f. From that time until 1916 its sales were never less than 64 million M.c.f. and in many years larger. In 1916, 1917 and 1918 it

was forced to meet enormous demands upon its system occasioned by World War I, its sales in 1916 being over 102 million M.c.f. (Ex. 2, 2). During this period Hope's earnings steadily increased, reaching \$5,221,000 in 1916 (Ex. 81, R. III, opp. 17, col. (j)).

During this period Hope met these demands largely from its own producing fields. As a result of this World War I depletion of its gas reserves Hope was required to extend its system southward after the war even in the face of greatly declining demands. Finally in 1925 it built a long transmission line to southern West Virginia where it could procure additional supplies from producers who had theretofore engaged in the manufacture of carbon black. (Ex. 4, 55-61; Ex. 3A). 1926 was thus the first year of full operation of this extended property and of Hope's greater dependence upon purchased gas.

Since 1925 Hope's sales, revenues and earnings have fluctuated widely each year, depending upon winter weather conditions, industrial activity, the extent of local gas supplies available to its customer companies in Ohio and Pennsylvania, the extent to which it was called upon to meet winter loads from its own gas reserves and other factors (Ex. 4, 61-65).

The following table summarizes its operations:

Year	Fixed Assets — Per Books ⁶	Hope's Total Sales Per Books		Depreciation and	Hope Net Operating	Total
		M.c.f.	Revenues	- Depletion Per Books	Gas Income Per Books ¹⁰	Col. $(5) + (6)$
(1)	(2)	(3)	(4)	(5)	(6)	(7)
			(Thousa)	nds Omit	t e d)	
1926	\$ 47,164	57,156	\$ 20,662	\$ 2,872	\$ 3,479	\$ 6,351
1927	48,762	$52,\!433$	19,363	2,809	1,535	4,344
1928	48,548	55,081	20,635	2,651	2,393	5,044
1929	52,193	57,444	22,048	2,660	3,234	5,894
1930	53,009	52,649	19,931	2,677	1,188	3,865
1931	$52,\!\!\!\!/779$	47,725	17,993	2,560	699	3,259
1932	52,412	37,702	14,206	2,329	$(805) L_0$	1,524
1933	52,191	37,080	14,121	1,998	366	$2,\!364$
1934	$54,\!454$	43,535	15,986	1,693	1,041	2,734
1935	54,312	47,133	16,976	1,846	2,279	4,125
1936	56,106	55,679	20,139	2,013	3,555	5,568
1937	56,536	58,911	20,366	1,982	2,368	4,350
1938	56,650	47,921	16,942	1,663	872	2,535
1939	$64,\!251$	51,344	18,119	1,218	2,283	3,501
1940	65, 193	69,056	24,362	1,464	5,337	6,801
Total	\$814,560	770,849	\$281,849	\$32,435	\$29,824	\$62,259
Average	\$ 54,304	51,390	\$ 18,790	\$ 2,162	\$ 1,988	\$ 4,150

⁶ From Ex. 81, R. III, 16, Col. (b). Fixed Assets for 1939 and 1940 include former Reserve Gas Company properties. Other columns include operations of former Reserve Gas Company for 1940 only.

From Ex. 2, 2 and 2B, 3, R. III, 307.

The figures above include Hope's distribution business, as do all general financial figures used by the Commission. In column (2) is given the fixed assets relating to the natural gas business which average over \$54 million. Column (7) represents the net operating gas income before any deduction for depreciation and depletion and averages \$4.1 million per annum. In examining Hope's book figures it is necessary to show the combined earnings available for return, depreciation and depletion because of Hope's depreciation policy. That policy was never an attempt to provide for merely the annual depreciation and depletion of the property. Hope's Treasurer, Mr. Chisler, explained that the amounts annually set aside were determined by ascertaining the amount of money needed for current property replacements and the additional amounts which it was

⁸ From Ex. 81, R. III, opp. 17, Col. (b).
⁹ From Ex. 81, R. III, opp. 17, Col. (h).
¹⁰ From Ex. 81, R. III, opp. 17, Col. (j).

deemed advisable to reserve from earnings to pay for needed improvements (Chisler, R. II, 399-400). As Mr. Chisler said:

"Well, the whole plan was to keep enough money from revenues, from earnings, to develop the property with." (R. II, 399.)

This policy, of course, explains Hope's large depreciation reserves and its low capitalization. It was a conservative policy that harmed no one and kept available money to make replacements at current price levels and necessary extensions.

Taking these fifteen years Hope's total operating gas income available for return, depreciation and depletion of \$4.1 million on fixed assets which we know from this record were substantially understated on the books at \$54 million cannot be distorted into a showing of excessive or even adequate earnings.

4. Proceedings Before the Commission.

In addition to the parties referred to in the petitioners' briefs, the State of West Virginia and The Public Service Commission of West Virginia were permitted to intervene in the consolidated proceedings before the Commission by order dated April 2, 1940 and the City of Toledo, Ohio, was permitted to intervene in the investigatory proceedings by order dated May 28, 1940. The State of West Virginia subsequently filed a brief opposing the recommendations of the Commission's Staff as being contrary to the interests of West Virginia in tax revenues from utility property and in the securing of reasonable prices for the production and sale for export of an irreplaceable West Virginia natural resource.

The hearings referred to were before a Trial Examiner, and not before the Commission itself.¹¹

Hope, being required by the Commission to proceed first with its testimony (R. II, 36), presented all of the evidence which this Court has heretofore held relevant for rate-making purposes and rate base determinations—data as to the dates of the construction of its property and as to changes in price levels, book cost, original cost, reproduction cost and the accrued depreciation in its properties, as well as data on operating expenses for 1937 through 1940 and on rate of return.

The complainants, Cleveland, Akron and the Pennsylvania Public Utility Commission, presented no evidence on rate base or anything else.

The Commission's Staff presented no evidence as to the present value of Hope's properties, but introduced figures showing a rate base consisting of an adjusted book cost of Hope's properties, less a recomputed depreciation

¹¹ Hope's application to the Commission for a copy of the Examiner's report in order that it might be apprised of the Government's claims and file exceptions and objections to the report was denied (Order, October 3, 1941). The Commission failed to include the Examiner's report in the certified transcript of the record which it filed with the Circuit Court of Appeals, although inclusion of the report was specifically requested by Hope (Petition for Review, R. IV, 12). In view of the scope of the exhibits and the length of the hearings before the Trial Examiner this case was peculiarly one where the Commission should have followed the practice as to Examiner's reports recommended to insure a fair hearing in Morgan vs. United States, 298 U.S. 468, 304 U.S. 1. All other important federal regulatory bodies follow this practice: Bituminous Coal Division, Department of Interior (Rule XXIV); Civil Aeronautics Board (Rule 5); Federal Communications Commission (Commission's proposed findings served on all parties, Rule 1.231 (f) and (g)); Federal Trade Commission (Rules XX and XXI); Food and Drug Administration, Federal Security Agency (Proposed order issued, Rules of Practice, Sec. 2.712); Interstate Commerce Commission (Rules 95 and 96); National Labor Relations Board (Rules, Art. II, Secs. 32 and 33); Public Contracts Division, Department of Labor (Rules, Part I, Secs. IX and X); Railroad Retirement Board (Regulations, Sec. 250.15); Securities and Exchange Commission (Rules IX and X).

reserve, plus unoperated leases at book cost, and working capital. It also introduced data as to Hope's operating expenses and statistical data as to rate of return.

A complete list of the exhibits presented by Hope and by the Commission's Staff, classified by subject matter, appears at R. I, 91-101.

Since the true nature and effect of the Commission's determinations can be understood only in the light of the evidence which was before it when it rendered its Opinion and made its rate order, we later summarize this evidence and the Commission's determinations thereon under our discussion of rate base, operating expenses and other factors requiring determination in fixing rates.

SUMMARY OF ARGUMENT.

The judgment of the Circuit Court of Appeals reversing the Commission's orders in this case should be affirmed for the following among other reasons:

I. RATE BASE.

The Commission began its rate base calculations with a figure more than \$17 million below the original cost of Hope's interstate properties here involved. This it did by erroneously considering as "original cost" and "actual legitimate cost" under the Natural Gas Act not the amount of money actually spent by Hope in the construction of those properties, which amount was not in dispute, but only such parts of those amounts as Hope had at the time capitalized on its books under its varying accounting practices of the past. As a result the Commission here fixed a rate base on accounting principles inconsistent with those applied by it in determining annual operating expenses and inconsistent with a proper construction of the term "original cost" as that term is used in the Natural Gas Act and as it is defined in the Commission's Uniform System of

Accounts. Thus it eliminated from the rate base a large part or all of the original cost of some 2600 wells and many other items of physical property now used in rendering public service. There is no justification for this elimination either in theory or in the facts pertaining to Hope's past rate history. It constitutes arbitrary retroactive regulation.

Hope's existing interstate properties were built over a 43-year period commencing in 1898 with half of them built prior to World War I at price levels approximately one-half of those since prevailing. By beginning its rate base calculations with these ancient, partial book costs the Commission disregarded the known, proved and great changes in price levels that have occurred since 1898. Thus its rate base admittedly does not reflect by any amount the change in general price levels since 1898, in the purchasing power of the dollar, or present value by any standard of measurement.

From partial past costs of Hope's properties the Commission deducted a recalculated depreciation reserve which on many substantial items of property left in the rate base less than their present salvage value and otherwise greatly overstated the amount of accrued depreciation existing in fact.

The rate base so fixed is too low under the Natural Gas Act and under the Constitution. Both protect Hope's existing property to the extent of not permitting the Commission to compel its consumption and use at less than a fair return on its present value, and properly so. The Commission's rate base and rate making method here applied further fail to meet the prudent investment or any other standard of reasonableness. They are not supported by reason or experience and are arbitrary and invalid.

II.

OPERATING EXPENSES.

The Commission reduced or eliminated substantial portions of Hope's necessary operating expenses. It failed to allow any annual depreciation upon the properties which it omitted from its rate base and upon properties in service in 1942 which Hope had added to its plant since 1940. On other properties it substantially understated Hope's necessary depreciation expenses by calculating its allowances on past book cost rather than upon the present value of the properties in service. Thus it refused Hope the money necessary to maintain its plant under present price levels. In allocating cost the Commission allowed Hope a wholly inadequate return upon its West Virginia distribution properties. It eliminated Hope's actual expenditures for a deep test well which proved dry. It reduced Hope's expenses by crediting against them substantially all of the earnings from the gasoline and butane business of an affiliated company without adequate allowance to that company for return on its property. Finally, the Commission eliminated millions of dollars of federal income taxes actually paid by Hope in determining past rates and allowed a wholly inadequate amount of federal income taxes in determining future rates.

III. RATE OF RETURN.

The Commission arbitrarily applied a low present rate of return to its past cost rate base. This combination of ancient cost in the rate base with a present day rate of return is not in accordance with the prudent investment principle of rate making and in any view is unreasonable. The rates of return applicable to the past periods when Hope's properties were being built were shown in the record and the Commission arbitrarily and unreasonably refused to apply them to its past cost rate base.

IV.

VIEWED IN THEIR ENTIRETY THE RATES FIXED BY THE COMMISSION ARE TOO LOW BY ANY STANDARD.

The rates fixed by the Commission are substantially too low on either the present value or the prudent investment method of rate making. They allow Hope less than 4% on any minimum estimate of present value. On the prudent investment basis they allow Hope less than 5% for both return and annual depreciation and depletion. That the rates are too low is shown additionally by the fact that they assume that Hope can continue indefinitely to furnish large quantities of gas to meet present abnormal demands at a delivered cost of 9¢ per M.c.f., whereas the average price which Hope must pay for purchased gas in West Virginia is 18¢ per M.c.f. The Commission's rates cannot be justified on the ground that Hope's financial record in the past has been successful, or on any other ground. Hope's recent experience attempted to be added to the record at this time indicates that even upon the Commission's own rate making theories the reduction which it ordered is excessive.

V.

THE COMMISSION'S FINDINGS AS TO LAWFULNESS OF PAST RATES.

The Commission's retroactive determination of rates for the three and a half year period prior to the effective date of its order fixing rates for the future is beyond its authority. The Natural Gas Act authorizes it to fix only future rates "to be thereafter observed and in force" (15 U. S. C. 717d (a)). It contains no authority to order reparations or to make retroative determinations. These retroactive findings are based upon the same formulas applied in fixing future rates and are therefore invalid. Additionally, they retroactively judge the reasonableness of past rates each year by hindsight instead of by foresight and thus impose an arbitrary and unreasonable standard of conduct.

ARGUMENT. I. RATE BASE.

(Com. Brief, 33-99; Cleve. Brief, 28-52)

A. SUMMARY OF THE EVIDENCE AND THE COMMISSION'S DETERMINATIONS.

1. Costs New.

Originally both parties introduced evidence as to rate base as of December 31, 1938. Thereafter such evidence was brought down to various later dates. Because all of the original exhibits develop figures as of December 31, 1938 we shall use these figures hereinafter unless the text otherwise indicates.

In submitting evidence of the rate base for the interstate business both parties excluded all distribution property and likewise excluded certain property used to carry coke oven gas used as fuel in Hope's compressor stations. For 1940 by stipulation of the parties the properties, revenues and operations of the former Reserve Gas Company, a subsidiary of Hope whose properties and business Hope acquired by merger on December 30, 1939, were excluded (Stipulation, Ex. 77; Tonkin, Tr. 302). It will be understood that all figures hereafter used referring to rate base exclude all of these items.

The items which entered into the interstate rate base were these:

- (1) The physical properties, including production system, transmission system and general property;
- (2) Operated leaseholds;
- (3) Useful unoperated leaseholds;
- (4) Working capital; and
- (5) Capital additions after 1940.

Items (4) and (5) were the subject of separate allowance and figures for them will not be included in the present discussion of property costs. Although items (1), (2) and (3) are separately dealt with in many of the exhibits, we believe it will contribute to simplicity of explanation hereafter to combine them and thus show over-all figures for the interstate physical property and leaseholds. If the Court refers to figures in the exhibits and they seem at first not to be the same as those in the brief this varying treatment of leaseholds will explain the difference.

Book Cost. The properties devoted to interstate service as capitalized on the books of Hope as of December 31, 1938 amounted to \$52,730,666 (Ex. 20, R. I, 197). cost so capitalized reflected, of course, the varying accounting practices of Hope over its previous 40-year history. It included only such costs as had been charged to capital accounts on its books at the time the properties were constructed and which had not been retired from the capital accounts. When Hope prepared a detailed field inventory and cost study of its property as of that date it found certain property shown in its capital accounts which did not appear in the inventory and conversely, other property which appeared in the inventory, but was not shown in its capital accounts. Hope made the proper adjustment both ways when it determined the actual original cost of the existing properties (Ex. 20, R. I, 173-177). All of Hope's work sheets and other data with respect to these studies were made available to the Commission's Staff (Ex. 20, R. I, 189).

Adjusted Book Cost. The Commission's Staff began with this \$52,730,666 book cost and prepared an adjusted book cost, making changes to correct what it called "accounting errors." It accepted Hope's inventory. It then made the same adjustments downward which had been made by Hope for the items of property which had been retired from service but not retired on the books as shown

by this inventory, but made only a small part of the upward adjustments which had been made by Hope to include the cost of the items of property not shown on the books but actually found to exist by the inventory. The balance of these necessary upward adjustments were not made by the Staff, either on the theory that the cost of these existing items of property had originally been charged to other than capital accounts or on the claim that no voucher for them as separate items could be found in Hope's records. The adjusted book cost so arrived at by the Staff for Hope's interstate property was \$51,792,000 (Ex. 57, R. I, 219-221).

Original Cost. Hope at the direction of the Commission under Section 6(b) of the Natural Gas Act prepared and introduced a statement of the original cost of its property (Ex. 20, R. I, 167). In so doing it considered original cost to mean the amount of money actually spent to construct the various items of property now in service at the time they were constructed regardless of how the expenditures were at the time charged on the books. For reasons hereinafter fully discussed the full original cost was not capitalized on its books. Accordingly Hope went back to its original work orders, vouchers and other records to ascertain what they recorded the actual construction cost of the existing properties to have been at the time of construction and found the actual original cost of all the property now in service to be \$69,735,000 (Ex. 20, R. I, 195-197).

The Staff introduced no statement of original cost but claimed that its "adjusted book cost" was also the "original cost" and the "actual legitimate cost" (Smith, R. I, 270).

The difference between the Staff's figures and those of Hope depend on a question of law which is fully discussed beginning at page 30 below. Increased Price Levels. Hope's properties in service on December 31, 1938 were constructed gradually over a period of more than forty years. Necessarily its costs, both original and book, reflected the varying price levels that prevailed over those years. In order to show the effect of these changing price levels upon Hope's property the costs of the various items of property constructed in each year were adjusted by the application of price trends to show what they would have cost if constructed when and as they were but substituting the prices for labor and materials paid by Hope in 1938 for the prices actually paid at the time of construction. The purpose of this was to show just how much change there was in the level of prices applicable to this property over the 40-year period (Ex. 20, R. I, 195-197).

The result of this trending was to show that had the property been constructed in the manner it was, but at 1938 prices, the amount of money actually paid therefor (original cost) would have been \$105,101,000 in place of the actual original cost of \$69,735,000 (Ex. 20, R. I, 193). Thus the price level applicable to this property in 1938 was more than 50% higher than the average price level prevailing at the times the various items of property were constructed. Exhibit 20 (R. I, 207) contains a summary of the original cost by years together with the trended original cost as shown in the exhibits.

This summary further shows that one-half of Hope's present property was constructed prior to 1917 at an original cost in round figures of \$25,000,000. The other half was constructed since 1917 at an original cost of \$45,000,000. Accordingly, if both halves of Hope's present property had been constructed over the years since 1917 its original cost would have been \$90,000,000, and if its books had been kept in accordance with the present Commission System of Accounts, the recorded book cost would now be \$90,000,000.

Reproduction Cost New. Hope presented an estimate of reproduction cost new of \$97,340,000 (Rhodes, Ex. 16-A, R. I, 165, Ex. 16-B to I, inclusive; Ex. 37, 50). This estimate was made by George I. Rhodes of Ford, Bacon & Davis, a widely experienced engineer in the design, construction and operation of many natural gas systems. It was most carefully prepared. It contained no estimate whatever for the cost of developing the business, or for going concern value, or for any discovery value of the great gas fields developed by Hope (Ex. 16-A, R. I, 162). In other words, it included only the estimated cost of reproducing the physical property with leaseholds included at actual cost.

It will be noted that this reproduction cost is nearly \$8,000,000 less than the trended original cost. This is to be expected. The trended original cost reflected a construction of the property by the methods and in the exact manner employed at the time the various items were constructed but at prices prevailing in 1938. The reproduction cost contemplated a present reproduction of the property at one time by the most modern and efficient methods.

The record also showed that The Public Utilities Commission of Ohio in passing on the rates of Hope's affiliate, East Ohio, determined a reproduction cost new of Hope's interstate property as of June 30, 1937 in the amount of \$100,257,000 (Cleveland case, supra, pp. 8-9, Exhibits A and C to Cleveland's "Supplement to Petition and Complaint as Amended" herein, Docket No. G-100, Table 6,

¹² No Commission witness testified that Hope's properties could be built at present price levels at anything less than the aggregate amount shown in Hope's exhibit. Criticism was made only by one Staff witness as to installation costs on field and transmission lines and as to what pipe prices prevailed in 1938 (Bodner, Ex. 73 and 73A, R. III, 83-95). The record showed that pipe on large scale pipe line projects in 1941 cost more than the 1938 pipe prices used in Hope's exhibit (Rhodes, Tr. 5541-5555; Tonkin, Tr. 5760).

p. 117). Pipe prices as of the date of that determination were higher than the 1938 prices which Mr. Rhodes used. As of 1941 and later, the Ohio Commission's finding of reproduction cost new is probably more accurate than that of Mr. Rhodes (Rhodes, R. II, 72; Tr. 5541-5552; Tonkin, Tr. 5760).

Hope further offered evidence to show that the reproduction cost new determination by the Ohio Commission as of 1937 was merely an adjustment to that date of a reproduction cost new of Hope's physical property agreed to as of 1931 and 1932 between the engineers of East Ohio and of the complaining Cities of Cleveland and Akron. This evidence the Commission excluded (Exs. 121 and 122; Tr. 5927-5945).

2. Accrued Depreciation.

Hope's Evidence. On behalf of Hope Mr. Rhodes and his engineering assistants determined the amount of accrued depreciation existing in all of Hope's properties as of December 31, 1938, that is the extent to which their total service life had already expired (Rhodes, R. II, 421-422). This determination was made by methods appropriate to each of the several property classifications (Ex. 21, R. I, 355-367; Ex. 22).

Accrued depreciation in Hope's 3300 gas wells was determined on the basis of the proportionate decline in useful rock pressure from the time the wells were drilled to the date certain (Ex. 21, R. I, 356-358). Depreciation of pipe lines was determined by extensive sampling and inspection of buried pipe in 1939, the measurement of the pitting of the pipe inspected, the application of rules developed by the U. S. Bureau of Standards expressing the behavior of pitting in buried pipe and a final determination of the overall extent to which the service life of the pipe lines had been consumed to the date certain (Ex. 21, R. I, 358-360;

Rhodes, R. II, 440-442). Depreciation accumulated in compressor station equipment was based on a 1939 field observation of this equipment, a study of the history of its use and operation, retirements and other factors affecting its service life (Ex. 21, R. I, 360-361). Depreciation accumulated in property in other accounts was similarly determined from inspections in 1939 and similar investigations. In all accounts where necessary an additional allowance was made to provide for accumulated depreciation or expired service life that could not be determined from inspection (Ex. 22).

Mr. Rhodes found Hope's physical properties as a whole to have an average accrued depreciation of 34.51% and a corresponding present per cent condition of 65.49%. The present per cent conditions of the principal classes of physical property were found to be as follows (Ex. 21, R. I, 369-371; Ex. 38):

Physical Properties	Repro- duction Cost New	Percent Accrued Depre- ciation	Resulting Percent Condition	Cost New Less Depre- ciation
332-1 Gas Well Construction	\$19,321,139	68.7 %	31.3 %	\$ 6,047,517
332-2 Gas Well Equipment	10,874,199	43.6	56.4	6,133,048
333-1 Field Lines	17,282,312	26.	74.	12,788,911
352-2 Compressor Station Structures	1,957,473	28.	72.	1,409,381
353 Transmission Mains	16,500,288	21.	79.	13,035,228
354-2 Compressor Station Equip-				•
ment	$9,\!874,\!271$	19.	81.	7,998,160
All other accounts	4,868,075	20.4	79.6	3,874,030
Undistributed Construction Costs	14,296,099	23.66	76.34	10,913,139
Total	\$94,973,856	34.51%	${65.49\%}$	\$62,199,414

Before this Hope evidence was presented counsel for the Commission assumed that Hope would claim merely "observed physical deterioration" of its properties, as utilities often have (see, for example, *Natural Gas Pipeline* case, 315 U. S. 586, Note 4). However, when questioned on this point Mr. Rhodes explained clearly that he had determined the accrued depreciation from all causes (R. II, 424).¹³

The Commission's Staff's Evidence. The Commission's Staff did not undertake to determine by inspection of Hope's properties, by a study of their use and operation, by a study of the past depreciation experience of Hope, or otherwise, what the present actual existing depreciation was in any or all of Hope's properties or what proportion of their service life had expired. Instead Mr. French, a Staff engineer, estimated total service lives for each kind of Hope property—for example 45 years for field line pipe, 40 years for gas well tubing and casing, 39 years for compressor station equipment and 64 years for transmission line pipe (Ex. 65, R. III, 172-173). There was a great deal of evidence showing that these estimates on Hope's long-

¹³ "Q. [By Commission Counsel] Then really, your condition per cent was based upon observed physical deterioration in the Hope properties, was it?

[&]quot;A. [Rhodes] We started with observed physical deterioration. There was added to that all of the effects of obsolescence and things of similar nature which have been and are leading to the retirement of Hope's property, and on top of all that, there was added an allowance which I deemed sufficient to cover all depreciation of all other kinds, existing in the property." (R. II, 424)

Mr. Smith of the Commission's Staff in his general oral testimony on depreciation principles (Smith, R. I, 380, 383-384) commented unfavorably on what he called "the observed depreciation" method. However, on cross examination he readily admitted that these comments had nothing to do with Hope's testimony in this case (R. I, 388):

[&]quot;Q. In your comments upon observed depreciation, do I understand that you were not referring to Mr. Rhodes' testimony?

[&]quot;A. I was speaking generally of observed depreciation studies.

[&]quot;Q. And you weren't referring specifically to the testimony in this case?

[&]quot;A. That is correct."

lived properties were either based on erroneous calculations or were mere "judgments" or guesses by Mr. French (Ex. 65, R. III, 151; Exs. 84, 85, 86, 87, 101, 102, 103, 104; French, Tr. 3463, 3465, 3478, 3484, 3490-3493, 3502, 3508, 3523, 3532-3534, 3553, 3578, 3601; Rhodes, Tr. 5239-5395).

Next Mr. French converted his estimated service lives into annual depreciation rates by dividing the lives into 100—for example the 45 years for field line pipe became 2.22%, the 40 years for gas well tubing and casing became 2.5% and so on (R. III, 172-173). The Staff accountants then applied these annual depreciation rates to their "adjusted book cost" of the properties to compute a so-called "reserve requirement" (Dunn, Ex. 61, R. III, 175). In other words, they calculated the depreciation reserve that they claimed Hope would have accumulated if it had started in 1898 and had each year applied Mr. French's rate to Hope's book costs for its plant (Dunn, R. II, 540-541). Similar computations, using estimated percentages of annual gas withdrawals, were used to arrive at a revised depletion "reserve requirement" for some properties which the Staff claimed should be "depleted" rather than depreciated (Ex. 61, R. III, 180-181, 187). In this instance also there was much evidence showing that the estimated percentages of withdrawal were erroneous and were erroneously applied and that some of the properties which the Staff depleted were not in fact subject to depletion (Exs. 88, 93-97, 100, 119, 141; Dunn, R. II, 473-510; Tollefson, Tr. 4919-4994; Rhodes, Tr. 5233-5237, 5966-5976; Tonkin, Tr. 5773-5785).

As a result of all its computations the Staff worked out an "Adjusted Depreciation Reserve" of \$23,501,355.80 as of December 31, 1938 (Ex. 61, R. III, 184-186).

3. The Commission's Rate Base Determinations.

The Commission's rate base calculation was as follows (Opinion, R. I, 50):

	December 31, 1938	December 31, 1940
"Gross Investment in Gas Plant in Service" (including all		
leaseholds ¹⁴)	\$51,792,000	\$52,523,000
Less: "Actual Existing Depletion and Depreciation"	21,188,000	22,328,000
"Net Investment"	\$30,604,000	\$30,195,000
Add: "Working Capital" 15	2,100,000	2,125,000
"Interstate Rate Base"	\$32,704,000	\$32,320,000

For the purpose of its order reducing future rates the Commission used the rate base shown for December 31, 1940 plus an allowance of \$1,392,000 (Opinion, R. I, 50) for one-half of Hope's net capital additions during the years 1941 to 1943. The corresponding figures for December 31, 1938 are shown because in the evidence heretofore stated it was figures of that year that were used.

¹⁴ The unoperated leaseholds were found by the Commission, as the evidence showed, to be "useful or imminently useful and *** necessary for the continued and efficient production of natural gas" (Finding (14), R. I, 4). The Commission's further finding that "its cost should be included in the rate base" (*ibid.*) was clearly required by the evidence. This was no item of "liberality" for which any credit may be claimed, as the petitioners now try to do (Com. Brief, 31).

¹⁵ In addition to an uncontested amount for materials and supplies the Commission allowed \$871,407 cash working capital as of December 31, 1938 and \$896,401 for 1940 (R. I, 49). Hope's testimony showed that as a practical business matter it needed at least \$1,750,000 (Ex. 36; Chisler, Tr. 1781-1782). The Commission brief's reference to "Hope's corrected claim" (p. 32) is apparently based on the lower court's remark that if certain adjustments were made in Hope's estimate the result would be less than the Commission's allowance (R. IV, 194). This remark overlooked the offsetting adjustment to include prepaid items which the Commission recognized in its Opinion had to be made (R. I, 49). This allowance by the Commission of half the cash working capital Hope testified it needed is another of the items of "liberality" for which it now claims credit (Com. Brief, 32).

As we have seen, when the Commission fixed the above rate base it had before it the following undepreciated costs or values for the interstate property as of December 31, 1938:

Book Cost	\$ 52,730,000
Staff's Adjusted Book Cost	51,792,000
Original Cost	69,735,000
Original Cost at 1917-1938 prices	90,000,000
Original Cost Trended to 1938 prices	105,101,000
Reproduction Cost New:	
Ohio Commission—6/30/37	100,257,000
Company—12/31/38	97,340,000

The Commission started its rate base computation with the exact dollars shown by its Staff's adjusted book cost of \$51,792,000.

The source of the "Actual Existing Depletion and Depreciation" in the Commission's rate base calculation is the Staff's "Adjusted Depreciation Reserve" of \$23,501,355 as of December 31, 1938. The Commission revised this reserve downward to \$21,188,000, on the basis of four of the obvious errors pointed out by Hope in the application of the Staff's own theories (Kennedy, Exs. 137 and 138, Tr. 6492-6519; Opinion, R. I, 43-45). However, following the Staff's general notions, the Commission said this "required depreciation and depletion reserve" is "the best evidence of the measure of actual existing depreciation and depletion and it will be deducted from the actual legitimate cost of the Company's property for rate making" (Opinion, R. I, 45).

This "required depreciation and depletion reserve" is about 41% of the adjusted book cost from which it was deducted to arrive at the Commission's rate base.

The Commission's "Net Investment" rate base includes operated and unoperated leaseholds at cost less depletion in the amount of \$1,212,600 for December 31, 1938 (R. I, 50; R. III, 188). Thus its "Net Investment" rate

base for Hope's physical properties is \$29,391,400 for December 31, 1938.

The present value of these physical properties was determined at \$66,166,382 as of June 30, 1937 by The Public Utilities Commission of Ohio in the *Cleveland* case, *supra*, pages 8-9, and affirmed by the Supreme Court of Ohio in that case (R. IV, 171; Exhibits A and C to Cleveland's "Supplement to Petition and Complaint as Amended," Docket No. G-100, Table 6, p. 117).

These physical properties which appear in the Commission's rate base at about \$29,000,000 were valued for 1941 taxation by the State of West Virginia at over \$50,000,000 (Ex. 108, R. I, 391-393; Tr. 5431-5433, all excluded by the Commission¹⁶).

B. THE RATE BASE CALCULATION OF THE COMMISSION STARTED WITH A FIGURE THAT IS OVER \$17,000,000 BELOW THE ACTUAL ORIGINAL COST OF HOPE'S INTERSTATE PHYSICAL PROPERTIES AND LEASEHOLDS.

(Com. Brief, 70-89; Cleve. Brief, 39-46)

1. Statement of This Issue.

We start with this issue, not because it is the most important, but because whatever method of arriving at a rate base is adopted, an important element of evidence is the true original cost.

At the direction of the Commission (R. II, 36), pursuant to Section 6(b) of the Natural Gas Act, Hope prepared a detailed field inventory and a statement of the original cost of its properties (Ex. 20, R. I, 167-207) supra, pages 20 to 21. In doing this Hope followed the accounting principles set forth in the Commission's Uni-

¹⁶ This exclusion was erroneous. City of Lima v. The Public Utilities Commission, 106 O. S. 379, 140 N. E. 147 (1922); Greencastle Water Works Co. v. Public Service Commission of Indiana, 31 F. (2d) 600 (D. C., S. D. Ind., 1929); Great Falls Gas Co. v. Public Service Commission of Montana, 34 F. (2d) 297 (D. C., D. Mont., 1929).

form System of Accounts (Ex. 58, R. III, 41-68) and the new West Virginia System of Accounts which is practically identical with the Commission's System (Ex. 13). statement of original cost prepared by Hope is the statement which its books would actually show today had they been kept from the beginning in accordance with the new System of Accounts (Antonelli, R. II, 226, 179, 207). All annual operating statements prepared by the various parties in this case were prepared in accordance with the same Thus Hope achieved an entire consistency between the accounting principles used in preparing the annual operating statements and the accounting principles used in determining all evidence as to rate base. Proceeding in this way it found that the amount of money actually spent to construct Hope's present properties as of December 31, 1938 was \$69,735,000 (Ex. 20, R. I, 195-197).

As we have seen, in preparing the original cost statement ordered by the Commission Hope went back to its original work orders and vouchers and determined the actual amount of money spent for each item of existing property at the time of its construction (Ex. 20, R. I, 174, 195-197). The original work orders and vouchers were available for this to the extent of 94% of the property. In the case of the remaining 6% estimates were made of the probable cost at the time of construction¹⁷ (Antonelli, R. II, 184).

¹⁷ In determining the original cost of the properties by examination of its books of account, vouchers and other records and similar records of its predecessor companies, Hope was unable to secure records relating to minor amounts of property acquired from other utilities, the original cost of which had to be estimated upon the basis of Hope's experience in constructing similar properties under similar circumstances and during like periods (Ex. 20, R. I, 182). Similar estimates had to be made in the case of a few small field lines laid prior to 1907, a few early compressor station and other structures, and minor miscellaneous equipment (Ex. 20, R. I, 186, 188-189). In certain other cases the actual total cost of a group of properties was allocated among several properties on the basis of estimates but the total amounts included in original cost were determined directly from actual records and vouchers (Ex. 20, R. I, 186-187).

As we have noted, the Commission's Staff started with Hope's book costs of \$52,730,666 and adjusted them for what it found to be "accounting errors" to \$51,792,000, with which the Commission began its rate base calculation (Opinion, R. I, 50). This latter figure the Commission and its Staff referred to variously as "Investment in Gas Plant per Books as Adjusted" (Ex. 57, R. I, 219), "Gross Investment in Gas Plant in Service" (Opinion, R. I, 50), "Original Cost" (Ex. 57, R. I, 209, 215) and "actual legitimate cost" (Order, R. I, 10, 11).

The Commission made no attempt whatever to determine original cost on the accounting principles set forth in its Uniform System of Accounts and thus to make its rate base accounting consistent with its annual operating statement accounting.

Thus the difference between the parties is fundamentally a question of what is original cost. There was no dispute about the facts. It was conceded by Staff witnesses that if the Staff's conception of original cost had been the same as that of Hope the Staff would have arrived at substantially the same dollars shown by Hope (Smith, R. I, 300; Pace, R. I, 318-321, 324-326). Thus whether the Commission or Hope correctly stated what money was actually spent to construct Hope's existing properties is not in issue. Admittedly Hope's original cost figures show this.¹⁸

¹⁸ In the reply brief filed by the Commission's Staff before the Commission the correctness of this statement was admitted in the following language, page 12:

[&]quot;On page 40 of the Company's Brief the statement is made that Mr. Smith and Mr. Pace of the Commission's Staff would not differ with the Company's claims on gross dollars that were originally spent on the various Company accounts. This is a correct statement, but does not disclose the complete picture. The other half of the picture is the past voluntary assignments by the Hope Company to operations of a part of the gross dollars originally expended. * * * *''

The difference between the parties consisted of the following items (Ex. 59, R. I, 351, 353):

Total	\$17,848,921
Field and general overheads, including interest during construction	3,825,126
Other direct material and labor costs of buildings, pipe lines and other miscellaneous property	1,380,154
Drilling and other direct well construction costs for 2,633 wells	\$12,643,641

Brief comment as to each of these is necessary.

Prior to 1923 Hope had charged the cost of drilling wells to operating expenses (Ex. 20, R. I, 185). The first West Virginia System of Accounts became effective as to Hope in 1923 (Ex. 117; Chisler, R. II, 174) and required these costs to be capitalized as does the Commission's present System of Accounts (Ex. 58, R. III, 41). now has in service approximately 3300 wells the total direct drilling cost of which was a little more than \$16,500,000 (Ex. 20, R. I, 195-197). Of this \$16,500,000 a little over \$4,000,000 is capitalized on the Company's books and represents the 772 wells now in service which were drilled or drilled deeper after 1922. The Commission in its so-called "original cost" has in the inventory the 3300 wells. In the equipment account it has the cost of equipping 3300 wells but in construction or well drilling cost it has only the cost of drilling or drilling deeper 772 wells (Pace, R. I, 318-320). Hope, of course, has included the cost of drilling all wells now rendering public service (Opinion, R. I, 25). This one item accounts for \$12,643,000 of the difference between the original cost as determined by Hope and by the Commission.

\$1,380,000 of the difference represents all or a large part of the cost of the following among other items of property now actually being used by Hope to produce and deliver gas, which the Commission excluded entirely from its original cost (Ex. 59, R. I, 349-353; Ex. 60):

- 275 warehouses, barns, garages, blacksmith shops, sheds, tool houses, storage buildings and wash houses;
- 686 pits, bridges, fences, pipe skids, pipe racks and sidewalks;
- 2,945 benches, racks, heaters, cabinets, tables, truck flat beds and accessory items;
 - 152 miles of pipeline trench for lines from 1" to 20";
- 9,584 telephone poles with crossarms, brackets, pins and insulators;
 - 122 meter houses;
- 1,386 meter boxes;
 - 752 installation costs for tanks, pumps, motors, engines, gas coolers, boilers, traveling cranes, etc.

When a check of Hope's inventory with its books disclosed property such as this in the inventory was not on the books, and some property on the books was not in the inventory, Hope made the adjustments both ways in all cases (Ex. 20, R. I, 177) but the Commission did not.

Let us illustrate by a concrete example. On one of its main transmission lines, H-3, Hope put in a new river crossing which cost over \$10,000. At the same time the old river crossing was taken out and retired from service. On its books, however, Hope charged the cost of the new river crossing to expense and left the old river crossing, which cost \$8,000, in its capital account. When the preparation of the inventory and the examination of the records disclosed this Hope deducted the \$8,000 cost of the old river crossing from, and added the \$10,000 cost of the new crossing to, its original cost statement (Antonelli, Tr. 5025-5026).

When the Commission accountants checked this they adopted the reduction of the book costs to retire the old river crossing but declined to include in their adjusted book costs the cost of the new river crossing, presumably because that had been previously charged to expenses. The result is that in the Commission's rate base there is not one penny on account of this river crossing now in use. There were many items of property so treated by the Staff. (Antonelli, Tr. 5026-5027).

\$3,825,000 of the difference represents overhead costs of constructing Hope's properties (Ex. 59, R. I, 349-353) which at various times in the past Hope charged to operating expenses or, in the case of interest during construction, did not enter on its books at all since Hope did not account for the interest which its own funds were entitled to earn. In the case of these items as in the case of others there was no substantial disagreement as to the amount of these costs but the Commission and its Staff disallowed them on the ground that they had not previously been capitalized (Smith, R. I, 251-254).¹⁹

We turn then to the meaning of original cost.

2. Meaning of Original Cost.

The differing conceptions of original cost of the Commission and Hope may be tersely stated. Mr. Smith, the Commission's chief accountant, defined original cost as

"the cost accounted for in the past [on the Company's book plant accounts] exclusive of errors in accounting." (Smith, R. 1, 233-234)

Hope's decision to treat overheads as current expense, referred to in the Commission's Opinion (R. I, 49), was made in view of the anticipated action of the Commission excluding overheads both from rate base and from operating expense. In testing rates the capitalization method gives Hope the proper allowance. The current expense method used by the Commission and based solely on the overheads incurred in the improvements and betterments made in a single year does not.

¹⁹ Both Hope and the Commission's Staff excluded from current operating expenses all current overhead costs on current property construction. Hope did so to be consistent between rate base and operating expenses. The Staff was not consistent in that it also excluded overhead charges from capital accounts. The Commission in its Opinion (R. I, 49-50) added current overhead costs to current operating expenses, thus in this instance eliminating the inconsistency in the Staff's accounting treatment. Hope made no claim in any of its exhibits for current overhead charges in operating expenses and none of Hope's figures shown in this brief indicating the results of current operation include them. Hope of course is not entitled both to the capitalization of overheads and an annual allowance in expense for overheads.

This means that if, in accordance with any acceptable practice prevailing at the time the entries in the books were made, expenditures were charged to operating expense they cannot now be considered a part of the original cost, even though by the present System of Accounts they are required to be charged to capital account and even though no corresponding items now appear in expense (Smith, R. I, 238). Thus to Mr. Smith and the Commission "original cost" and "actual legitimate cost" mean no more than the recorded book costs slightly adjusted for what are determined to be "accounting errors" made at the time (Smith, R. I, 233-234; 287-288).

Hope's conception of original cost is that it means the amount actually paid to establish the utility to be ascertained as a fact from the Company's books, work orders, vouchers and other direct evidence, if possible, and to be estimated where these are not available, and that this must be done in accordance with the same accounting principles that are used in setting up the annual operating statements. Otherwise, as will be shown later, the cost of gas is either understated or overstated. Without such consistency rates cannot be fair.

(a) Meaning of original cost prior to the passage of the Natural Gas Act.

The term "original cost" inserted in the Natural Gas Act by Congress in 1938 was not a new conception. It was at least as old as the fair value rule itself and was stated in *Smyth v. Ames*, 169 U. S. 466, as one of the facts to be considered as evidence of value.

What courts, commissions, economists and accountants have all recognized as a proper definition of original cost is nowhere better stated than by Mr. Justice Brandeis, in his celebrated concurring opinion in *State of Missouri*, ex rel. Southwestern Bell Telephone Company vs. Public Service Commission, 262 U. S. 276. In a note at page 295

he defined original cost and the method of determining it as follows:

"Original cost is the amount actually paid to establish the utility. The amount is ascertained, where possible, by inspection of books and vouchers, and by other direct evidence. If this class of evidence is not complete, it may be necessary to supplement it by evidence as to what was probably paid for some items, by showing prices prevailing for work and materials at the time the same were supplied. But the evidence of these prices is merely circumstantial, or corroborative, evidence of the amount actually paid. In determining actual cost, whatever the evidence, there is no attempt to determine whether the expenditure was wise or foolish, or whether it was useful or wasteful. torical cost, on the other hand, is the amount which normally should have been paid for all the property which is usefully devoted to the public service. It is, in effect, what is termed the prudent investment. In enterprises efficiently launched and developed, historical cost and original cost would practically coincide both in items included and in amounts paid; that is, the subjects of expenditure would coincide, and the cost at prices prevailing at the time of installation would substantially coincide with the actual cost."

Nothing could be plainer than that in Mr. Justice Brandeis' view, original cost is the amount of money originally paid to establish the utility. He said nothing about the amount of money that was charged to capital accounts on the books of the company and nothing about corrections for accounting errors. He said original cost was a fact to be ascertained by an examination of the original work orders, vouchers, books and other records of the company. If the cost of part of the property could not be ascertained from direct evidence, it was to be estimated and evidence received "as to what was probably paid for some items."

Not only was this Mr. Justice Brandeis' conception but it was the conception of every other writer and authority on the subject. In Appendix B at page 159 below we have printed excerpts from numerous economists, accountants, courts and commissions all of which in varied language say that original cost is the amount of money spent in the construction of the present property, that it may or may not be represented by the book cost, and that it is to be determined as a fact from all the evidence including estimates where these are necessary to supplement records.

(b) The provisions of the Natural Gas Act support Hope's construction.

Not only did Congress thus use words with a well settled meaning but the language of the Natural Gas Act itself indicates this construction. Section 6(b) of the Act requires a natural-gas company upon request of the Commission to file an inventory of its properties "and a statement of the original cost thereof." If by original cost it meant merely the company's book cost there was no occasion for an inventory and the Act should have provided that the company should file a statement of its balance sheet accounts or a statement of the capital accounts on its books. Since these are a part of every financial statement that a gas company makes there was really no reason for inserting Section 6(b) at all if the Commission's interpretation is correct. Clearly the statement of original cost required by Section 6(b) was a statement of the cost of the various items of its property shown in the inventory and not simply the ordinary statement of a company's plant accounts.

Where a natural-gas company is required to file an inventory of all its property under Section 6(b) it is an anomalous construction of that section to hold that in stating the original cost of that same property it shall state only the cost of so much of the property as was at the time of construction capitalized on its books. Specifically, here Hope was required to file an inventory including all of its 3300 wells. It is not to be supposed that it is then to state

as the original cost of drilling these 3300 wells the cost of drilling or drilling deeper only 772 of them, which is all that is recorded in Hope's plant accounts or included in the Commission's "original cost" (Ex. 16, Pt. B, 95; Pace, R. I, 319).

Plainly Section 6 of the Natural Gas Act contemplates the amount of dollars "actually paid to establish the utility" as Mr. Justice Brandeis said and not merely "the cost accounted for in the past exclusive of accounting errors" as Mr. Smith said (R. I, 233-234).

(c) Hope's construction of "original cost" was adopted in 1939 by the Commission in its uniform system of accounts.

As authorized by Section 8 of the Natural Gas Act the Commission on November 3, 1939 adopted a Uniform System of Accounts to become effective as to all natural-gas companies on January 1, 1940. This is Exhibit 58 (R. III, 41). Its purpose and its language both support the construction of the term "original cost" adopted by Hope and deny that used by the Commission in its decision in this case.

To bring uniformity, consistency and comparability to the balance sheet and income accounts of natural-gas companies the Commission's Uniform System of Accounts required, first, that after January 1, 1940 all balance sheet and income accounts should be kept in accordance with its requirements, with gas plant properties shown in capital accounts at their original cost and, second, that the properties existing on January 1, 1940 should be reclassified into the new plant accounts in accordance with the requirements of the new System (Ex. 58, 16, 36-37, R. III, 47-49). The original cost which was thus to be shown not only for the properties built in the future but for all existing properties was defined to mean the amount of money actually paid for the property by the person first devoting it to

public service.²⁰ No previous system of accounts for gas companies had required such a restatement of the cost of the property installed prior to its effective date.

Thus all natural-gas companies were required to make a new start by restating their plant accounts on their books at original cost as of January 1, 1940 precisely as though the new Uniform System of Accounts had been in effect from the beginning. This original cost was defined as Mr. Justice Brandeis had defined it and of course had to be determined in the same way for all companies in order to

²⁰ The Commission's Uniform System of Accounts requires that Account 100.1, Gas Plant in Service, shall "include the original cost of gas plant" (Ex. 58, p. 16). Original cost as applied to gas plant is defined to mean "the cost of such property to the person first devoting it to public service" (Ex. 58, R. III, 44). Cost is defined as meaning "the amount of money actually paid for property or services or the cash value at the time of the transaction of any consideration other than money" (Ex. 58, R. III, 42). Thus the original cost to be shown for property in service is the amount of money actually paid for it by the person first devoting it to public service. See Gas Plant Accounts 100.1, 100.2, 100.4, 100.5 and 107 and the instructions relating thereto (Ex. 58, 16, 17 and 36; R. III, 47). Cost is to be "ascertained by an analysis of the utility's records" (Ex. 58, Instruction 2B, R. III, 48) and original cost is to be "estimated if not known" where properties have been acquired (Ex. 58, Instruction 2C, R. III, 48).

The footnote at page 74 of the Commission's brief stating that the present System of Accounts prohibits the reaccounting for items properly charged to expense in the past is based upon the existence of one sentence in the "Instructions" (Ex. 58, R. III, 48). Instruction 2 B says among other things that in making a classification of accounts to show original cost it is "not intended" that adjustments be made to record amounts previously charged to operating expenses "in accordance with the uniform system of accounts in effect at the time or in accordance with the discretion of management as exercised under such uniform system of accounts." This one sentence is inconsistent with every other definition, direction and instruction in the code (Antonelli, R. II, 179-180). Moreover, Hope's charges to expense in prior years, such as well drilling costs, were not so charged "in accordance with the uniform system of accounts in effect at the time." These charges occurred mostly prior to 1923 (Ex. 99, 10; Chisler, R. II, 174) when there was no uniform system of accounts applicable to Hope (R. II, 174).

achieve the object of uniformity. The result of this requirement was that all natural-gas companies would show their plant accounts both for old and new properties on the same basis in accordance with the new System and consistent with their operating expense statements. All companies would be on a uniform and comparable basis.

All this the Commission denied by its Opinion in this case. Instead it interpreted this accounting code to require the continued statement of the cost of items of plant acquired prior to 1940 in accordance with past accounting practices of each individual company, so long as they do not involve what are called "accounting errors." Mr. Smith answered "absolutely" to a question as to whether he would "freeze the accounting practices of the Company, if they were not due to error, in their statement of plant accounts" (Smith, R. I, 287-288).

To be more specific, if two companies had each spent \$10,000 in drilling and \$10,000 in equipping a well in 1920 and one company had charged the drilling cost to capital account and the other had charged it to expense, both being acceptable methods of doing it at the time, the Commission would now have one company continue in its plant accounts as the original cost of its well \$20,000 and the other company \$10,000. And if a third company had charged both the cost of drilling and equipping a well to expenses at the time it was drilled and this were at the time a recognized accounting practice the Commission would have that well included in the statement of original cost at zero (Smith, R. I, 288-289, 293). And this would be true although all of these wells are today in active operation and supplying gas to consumers. The Commission would include in the respective rate bases of these companies \$20,000 in one, \$10,000 in another and \$0 in the third, less in each case, except the last, a computed depreciation reserve.

3. The Commission's Determination of a Rate Base Inconsistent with Its Determination of Operating Expenses Has Arbitrarily Understated Hope's Cost of Gas.

All operating expense statements submitted by the parties and as found by the Commission conform to the accounting requirements set forth in the Commission's Uniform System of Accounts which became effective January 1, 1940. Hope adjusted its operating statements for the years prior to 1940 in order to conform them. As previously pointed out, Hope likewise followed these accounting requirements in determining original cost. The Staff admitted that Hope's rate base and operating statements were consistent (Smith, R. I, 298, 300).

The Commission has not been consistent. It has taken Hope's book costs that reflect the accounting practices of 40 years, slightly adjusted them for what it determined to be accounting errors and thus has a rate base that clearly is not constructed on the same accounting principles as the operating statements.

The Commission's reason for its inconsistency is thus stated in its Opinion (R. I, 29):

"No greater injustice to consumers could be done than to allow items as operating expenses and at a later date include them in the rate base, thereby placing multiple charges upon the consumers."

In Note 12, page 18 of the Opinion (R. I, 32) the Commission further says:

"Costs of exploration for and development of future gas reserves are considered current operating costs by the industry and Hope has included such costs in its current operating expenses. If retroactive accounting were allowed then the Company might restate these costs as capital investment in the future productive acreage. The Commission will allow \$600,000 in annual operating expenses for exploration and development costs in fixing rates. If this item were permitted to be restated in plant cost ten years from now

\$6,000,000 would be added to the rate base resulting in multiple charges to consumers."

The reasons thus set forth by the Commission are repeated in its brief in this Court (pp. 86-87).

Let us take this illustration selected by the Commission and see what the effect upon rates will be if it is treated as the Commission suggests it should be or with consistency as Hope claims.

Case One on Commission's Theory. Hope is to have \$600,000 per year in expenses for exploration and development costs, which represents roughly 1¢ per M.c.f. in the cost of gas. Suppose effective January 1, 1944 the Commission's System of Accounts is changed to require that thereafter all exploration and development costs shall be capitalized and suppose that it becomes necessary to fix a new rate for Hope as of January 1, 1945. Since these costs have not previous to 1944 been capitalized and since, on the Commission's theory, now to do so and include them in the rate base would result in multiple charges to consumers, there will appear in capital account on Hope's books on January 1, 1945 only \$600,000 by way of exploration and development costs—the amount capitalized in the year 1944. This and only this would go into the rate base. And since for the year 1944 the System of Accounts would no longer allow development costs to be charged to operating expenses, there would be nothing in operating expenses for this item. In computing the rate, therefore, the Commission would have in the rate base only \$600,000 and if it allowed Hope say 10% of this amount for return and depletion there would be in expenses only the annual capital charges of \$60,000 per year, or 1/10th of 1¢ per M.c.f. in the cost of gas. In other words, Hope's cost of gas has apparently been reduced approximately 9/10ths of 1¢ per M.c.f. solely because the change the Commission ordered in accounting has been applied fully to income statement but only partially to capital account.

Case Two on Commission's Theory. Let us now see how the rule works in reverse. Suppose exploration and development costs prior to 1944 had been charged to capital account and effective January 1, 1944 were thereafter required to be charged to operating expenses. In fixing a rate as of January 1, 1945 the Commission would find in capital account about \$20,000,000 (Ex. 26, 9) representing exploration and development costs capitalized prior to 1944. This would go in the rate base at a depleted condition of the wells of approximately 30% or about \$6,000,000 (Ex. 26, 9) upon which, again assuming 10% for return and depletion, Hope would be allowed \$600,000 as capital charges in its rates. But in operating expenses of the test year 1944, in accordance with the changed System of Accounts, it already would have \$600,000 representing the exploration and development cost of that year. If consistency between operating statement and rate base is disregarded, and adherence to accounts as entered is insisted on, as the Commission claims, the result of this change in accounting requirements would be an allowance to Hope of \$1,200,000 per year for exploration and development costs, or the equivalent of about 2¢ per M.c.f. in the cost of gas. This is about twice the normal cost that has been assumed and is again due solely to a change in accounting ordered by the Commission and not fully applied both to rate base and operating statements.

In other words, the Commission's method, which fails to preserve any consistency between rate base and operating expense statements, inevitably results either in an understatement or an overstatement of the cost of gas whenever there is a change in accounting practice.

Effect of Consistency. On the other hand, if consistency is maintained there will be no substantial change in the cost of gas. There will be approximately \$600,000 allowed in operating expenses either directly as current annual exploration and development costs or through capital

charges on past costs. Thus the cost of gas will not fluctuate with each change in accounting practice ordered by the Commission.²¹

Consistency requires that when any cost is included in current expense all like costs must be eliminated from the rate base, and in reverse when any cost is excluded from current expense and capitalized all like costs must be included in the rate base. Duplicate charges can occur only when the expenditures are considered in determining both current expense and rate base.

One more illustration of the effect of the Commission's inconsistency is important in this case. Well drilling costs were not capitalized prior to 1923 but since that date under the various codes of account they have been. Suppose that down to January 1, 1937 the cost of drilling presently operated wells had been capitalized in the amount of \$16,500,000, and then beginning January 1, 1937 by a change in the System of Accounts such costs were required to be

²¹ It is difficult to believe the Commission was familiar with the record in this case when it selected this particular illustration of exploration and development costs. In Exhibit 26 Mr. Rhodes worked out the two methods of handling exploration and development costs. The one method he called "Industry Practice of Charging to Expense" and the other method the "Capitalization Method" (Ex. 26, 11). In the first method he used the average of Hope's exploration and development costs for the years 1937 to 1939, both inclusive, as fairly representative; in the second method he capitalized all Hope's exploration and development costs from the beginning down to December 31, 1938, attributed these to all operated acres Hope had ever developed, and retired these costs in proportion as operated acres were retired, depleting the remainder on the same basis as the wells. At all times he maintained complete consistency between rate base and operating expense statements.

He found that on the basis of an 8% rate of return the expense method would put \$669,702 annually in operating expenses, whereas the capitalization method would put in expenses \$742,390 (Ex. 26, 11). On the basis of a 6½% return, which the Commission used in this case, the figures become \$652,240 on the expense method and \$655,187 on the capitalization method. The difference between the two methods is wholly inconsequential.

charged to operating expenses. On the Commission's theory the \$16,500,000 less depletion would go into the rate base and Hope would be given a return and annual depletion allowance thereon. At the same time there would go into operating expenses the annual well drilling costs for the years 1937 to 1940, resulting in a substantial duplication of cost at the expense of consumers.

It is a partial reverse of that situation that is presented here. Well drilling costs were not capitalized prior to 1923. Since that time they have been. The book costs therefore reflect only the cost of drilling 772 wells drilled since 1922 but do not show the cost of drilling 2600 wells now in use but drilled prior to that time. On the other hand, in operating expenses of the test years 1937 to 1940 there is no allowance for well drilling costs. The result is that the Commission's order includes an inadequate and sub-normal allowance for well drilling. It has no allowance for return or depletion on the drilling cost of 2600 wells from which gas is currently being supplied to consumers.

The Commission's inconsistent basis for operating expenses and rate base is arbitrary and demonstrates that its interpretation of "original cost" in the Natural Gas Act is unsound.

4. The Omission from the Commission's Rate Base of any Consideration of Property Costing Over \$17,000,000 is not Justified on the Ground that These Costs have been Recouped by Hope from Consumers or on Other Grounds.

(Com. Brief, 78-85; Cleve. Brief, 39-46)

The justification for the omission of these property costs is placed on various grounds. It is said that a company should not be permitted to impeach the integrity of its books or discretions exercised by management (Opinion, R. I, 31). The principal claim, however, is that Hope's rates were larger in the past than they would have been

if these expenditures had been charged to capital account and that in consequence Hope has "recouped" the expenditures from consumers and no longer has any investment in them (Opinion, R. I, 34; Com. Brief, 78-85; Cleve. Brief, 42).

As to impeaching books it is clear that Hope in setting forth a correct original cost in accordance with modern accounting procedures is not in any wise impeaching its books or its records. In fact it uses all of those for the purpose of finding the true cost. This no more impeaches these records than would a determination of reproduction cost new or any other method of measuring the value of the whole property as presently existing.

Moreover, it is to be observed that the position is not one for which Hope is responsible. Hope might well have been charging well drilling costs to operating expenses up to the present day had not West Virginia in 1923 ordered it to do otherwise. That as a matter of proper accounting West Virginia was right in requiring well drilling to be capitalized the Commission admits by its own System of Accounts. Thus the Commission, not Hope, has reversed former decisions of management on accounting matters. But the Commission seeks to reverse these decisions only as to the operating statement and not as to the capital statement, thereby substantially understating the present cost of gas.

As to whether Hope's rates in the past were higher then they otherwise would have been, the Commission's assumption is contrary to both theory and fact. In theory, costs will be somewhat higher by the capitalization method than by the expense method used by Hope in the past. This is obviously so because in the capitalization method interest or return on the amount capitalized must be included whereas in the expense method this is not so. In theory, therefore, Hope's rates in the early days (if they were determined in accordance with modern regulatory theories) were lower because they were determined on an

expense method as to the items in dispute than they would have been if they had been determined by the capitalization method.

Laying theory aside, the fact is that Hope's book-keeping methods prior to 1923 had little to do with fixing rates. As previously shown in the Statement, *supra*, pages 6 to 9, Hope's largest customer, East Ohio, made its earliest contracts with Akron and Cleveland in 1898 and 1902 for ten-year periods in advance and in the case of Cleveland, East Ohio's largest customer, renewed it for a ten-year period in advance to expire in 1921. Hope also fixed its contract rates to East Ohio for ten-year periods in advance.

Thus until 1921, which covered practically all the period when well drilling and other costs were being charged to expenses, the rates to Hope's principal customer and the rates to East Ohio's principal customers were all fixed by long term contracts in advance. In fact the first ones were made for ten years in advance of any exact knowledge of what operating expenses would be. After these contracts were made it was a matter of no consequence to any one what items either East Ohio or Hope charged to operating expense. Consumers who were able because of these contracts to replace artificial gas containing 550 B.t.u. and costing certainly not less than 75¢ per M.c.f. with natural gas containing 1100 B.t.u. at 30¢ per M.c.f. were not concerned either with how much money the two companies made or how they kept their books.

These simple facts are a complete answer to all the assumptions and theories in the petitioners' briefs that consumers in the past paid items charged to expense on the books or paid higher rates than they otherwise would when as a matter of fact the rates were fixed long before the book entries were made.

The truth is that this "recoupment" theory is merely a thinly disguised attempt at retroactive regulation covering the past 44 years without going through the steps necessary to proper regulation. Obviously what effect a different method of treating well drilling costs in any year prior to 1923 would have had on rates could only be determined by a careful determination of rate base and operating expenses for that year and similarly for other years. It cannot be determined merely on the assumption that a utility that made money from the natural gas business and from other sources has made enough over its entire history so that its well drilling costs have been "recouped." Such an assumption would be equally applicable to capitalized costs of any property.

Nor is it helpful to refer to the case of Re Hope Natural Gas Co., P. U. R. 1921E, 418 (1921) (Opinion, R. I, 29). It is true that in that case, which concerned only rates in West Virginia, Hope, in accordance with its then accounting practice, included current well drilling costs in operating expenses and consistently did not capitalize past well drilling costs. Also, in repeated recent cases in Ohio Hope's well drilling costs have all been capitalized and the current well drilling costs excluded from expense (Smith, R. I, 283-284). Consistency was preserved in every case. There was no duplication of costs and no omission.

However, it is interesting to note that in this West Virginia case the West Virginia Commission found that for the years 1918, 1919 and the first six months of 1920 Hope failed to earn the return from its utility business fixed by the Commission by \$1,100,000 per year (*ibid*, 433). Here is a direct finding that at least in that thirty-month period prior to 1923 Hope was not recouping its drilling costs in addition to a fair return from its utility operations.

General statements as to Hope's earnings during this or any other period (Opinion, R. I, 34) are not a substitute for such necessary determinations because, as we have seen at page 10, *supra*, over its history Hope has had approximately \$40,000,000 of earnings from other sources than its natural gas service. Also, a great portion of Hope's early natural gas sales were not to "rate payers" at all, but

were field sales to drillers, pumpers and others in West Virginia (Tonkin, Ex. 2, 2; Ex. 4, 50-51).

Had the Commission attempted to determine any "recoupment" as a matter of fact, that attempt would have forcibly illustrated that the rate making theories the Commission applied in fixing Hope's rate base in this case are wholly retroactive. Without making this necessary "recoupment" determination the Commission nevertheless eliminated these early well drilling and similar property costs from the rate base. Such retroactive rate regulation is not authorized under the Natural Gas Act and is obviously arbitrary under the Constitution.

This is not to say that there may not be particular cases where the principles of estoppel are applicable as to utilities' past accounting practices, as for example in Los Angeles Gas & Electric Corp. v. Railroad Commission, 58 F. (2d) 256. This and the other cases cited by the petitioners on this point are analyzed in Appendix C, page 174, infra. They lend no support to the Commission's retroactive determinations in this case. We have also set forth in Appendix B, page 159, infra, a number of court and commission decisions establishing that in the absence of particular estoppel it is wholly improper to eliminate property items from the rate base because they were in the past charged to operating expenses.

Additionally in Board of Public Utility Commissioners v. New York Telephone Company, 271 U. S. 23, at page 32, this Court said:

"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."

The application of this decision to the Commission's determination in this case is direct. When Hope included well drilling costs in operating expenses the effect was equivalent to the setting up of a 100% depletion or depreciation reserve on each well as drilled in each year, rather than accruing a depletion reserve on the basis of the production from that well spread out over a number of years. The Commission's decision here is in substance that Hope's future rates should include less return and a lower depletion charge than otherwise necessary because, in the Commission's view, Hope has charged excessive depletion amounts on these wells in the past. Hence Hope should furnish free to present consumers the annual use and annual consumption of its pre-1923 wells and other property. This is just what this Court condemned in the New York Telephone case.

The Commission itself recognized this principle in its treatment of Hope's depreciation reserve in this case. Commissioner Scott, dissenting from the Commission's Opinion (R. I, 80-89), advocated the deduction from the rate base of Hope's entire book depreciation reserve on the theory that it was built up of annual charges to expense and hence was "contributed by the customers," saying that he could "see no distinction between property which has been constructed by the company through charges upon the consumers by operating expenses labelled, for example, 'well drilling expense' and property which has been constructed by the company through charges upon the consumers by operating expenses labelled 'depreciation and depletion expense'" (Dissenting Opinion, R. I, 83). Commission, however, recognized that where, as here, a "large part of the Company's business is brought under regulation for the first time" it is improper to deduct the book reserve (Opinion, R. I. 40).

In his concurring opinion Commissioner Manly pointed out the immateriality of past charges in a case such as this (R. I, 77-78):

"Attention should also be directed to the fact that, until the passage of the Federal Power Act in 1935 and the Natural Gas Act in 1938, the depreciation policies of both the electric utilities and the natural gas companies, as regards their interstate operations, were not subject to regulation. Under such conditions, while it is true that the amounts set up on the books as depreciation reserves were derived from revenues collected from customers, they did not, as under regulation, play a determining part in fixing the level of rates and the consequent amount of the revenues. Without regulation, the good old rule of 'What the traffic will bear' is controlling and depreciation policies are an afterthought, determined by the management and board of directors. It follows therefore that, during the preregulatory period, the customers would not have contributed any more or less to the company's revenues, regardless of what depreciation program was pursued."

What Commissioner Manly said as to Hope's prior depreciation practices is equally and exactly applicable to Hope's practice as to these well drilling and other costs. What charges it made on its books in the past were wholly immaterial to its customers or to others, and the effect retroactively given them by the Commission is wholly arbitrary.

It should be apparent from the foregoing discussion that the Circuit Court of Appeals was wholly correct in determining that the Commission should not have excluded these wells and similar property from the rate base whether that be fair value or original cost (R. IV, 184-189).

C. THE RATE BASE ON WHICH THE COMMISSION'S ORDER RESTS DISREGARDS PRESENT VALUE AND IS CONTRARY TO THE NATURAL GAS ACT AND TO CONSTITUTIONAL REQUIREMENTS.

(Com. Brief, 34-70; Cleve. Brief, 28-38, 56-59)

The Commission Ignored the Present Value of Hope's Properties.

As we have seen, *supra*, pages 27 to 30, the Commission started its rate base calculation with the Staff's adjusted book cost of \$51,792,000. It thus gave no consideration whatever to the estimates of reproduction cost new presented by the Company or as found by the Ohio Commission, or to the trended original cost. It took no judicial notice of the known increases in price levels during the last forty-five years. In other words it disregarded all evidence of present value and even evidence of the true original cost. Nowhere does it claim that its rate base reflects present value.

The judges below were unanimous in pointing out that the Commission made no attempt to ascertain and paid no attention to the present value of Hope's properties (R. IV, 172, 203).²²

Before discussing the invalidity of such a rate base under the Natural Gas Act and the Constitution we point out that the Commission's failure to determine whether its rates permitted a fair return on present value cannot be justified on the ground that Hope's evidence was not entitled to any probative value and hence there was no other evidence than book cost. This is not a case in which

²² The Commission's brief argues (pp. 43-44) that "There is no evidence that present value is greater than original cost." Quite so. The \$69,735,000 original cost of Hope's properties is in excess of their present value, but the Commission's rate base does not use this original cost, or even that part of it included in its adjusted book cost, but deducts a revised depreciation reserve to arrive at a \$31,000,000 result which no one can claim or has claimed is anything less than a fraction of the present value of Hope's properties determined on any reasonable basis.

the provision of Section 4(e) of the Natural Gas Act is applicable. It says (15 U. S. C. § 717 c (e)):

"At any hearing involving a rate or charge sought to be increased, the burden of proof to show that the increased rate or charge is just and reasonable shall be upon the natural-gas company."

Here Hope sought no increased rate. On the contrary, complaints were filed against Hope's existing rates on the ground that they were unreasonable and in response thereto the Commission began its investigation. It follows that the burden of justifying these charges and supporting any reduced rates was upon the complainants or the Commission, and that the latter could make no order unless sustained by evidence of present value, if it be, as Hope submits, that both the Natural Gas Act and the Constitution require that rates permit a fair return upon present value. In such circumstances and in view of the fact that much of Hope's existing property was built before World War I it was the duty of the Commission or the complainants to introduce evidence of present value of the kind they believed convincing and the duty of the Commission to consider it.

Plainly, as the Circuit Court of Appeals said, it was also the duty of the Commission to take judicial notice of the greatly changed general price level, if present value is to be determined (R. IV, 180-181).

Moreover, the findings that original cost, trended original cost and reproduction cost as presented by Hope are all without "probative value" (see R. I, Findings (7), (8), (9) and (10)) obviously mean no more than that the Commission rejected and disregarded all evidence as to rate base other than the Staff's adjusted book cost. In note 6, page 9, of its Opinion (R. I, 23) the Commission says that under the *Natural Gas Pipeline* decision—

"such estimates of reproduction cost and trended 'original cost' need not have been admitted in evidence." We turn then to the question of the validity under the Natural Gas Act and the Constitution of a rate base which is less than present value.

2. The Natural Gas Act Requires a Rate Base Not Lower Than Present Value.

(Com. Brief, 36-39; Cleve. Brief, 28-34)

Under the Natural Gas Act Congress intended the rate base to be no lower than present value. This most clearly appears in Section 6, which provides as follows (15 U. S. C. Sec. 717e):

"Ascertainment of Cost of Property"

"Sec. 6 (a) 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.

"(b) Every natural-gas company upon request shall file with the Commission an inventory of all or any part of its property and a statement of the original cost thereof, and shall keep the Commission informed regarding the cost of all additions, betterments, extensions, and new construction."

It will be observed both from the title and the provisions of this section that it is not limited to rate-making. Both the statement of "original cost" and the determination of "actual legitimate cost" which are referred to in Section 6 may be useful to the Commission for accounting, depreciation and other purposes as well as rate making.

Section 6(a) also authorizes the Commission to investigate and ascertain "when found necessary for ratemaking purposes, other facts which bear on the determination of * * * the fair value of such property." Thus when rates are to be fixed the Commission is not only to investigate and ascertain "actual legitimate cost" but

other facts which bear on the determination of the "fair value" of such property. The Commission is thus to determine fair value having before it actual legitimate cost and other facts evidencing fair or present value.

Of these sections the Circuit Court of Appeals said (R. IV, 175):

"It was clearly the intention of Congress that under these sections the Commission might investigate and ascertain cost and depreciation of properties of natural gas companies, irrespective of whether a rate inquiry was involved or not, and that, where rate making was involved, the investigation might extend to other facts which bear on cost or depreciation and the fair value of the property. Instead of prescribing a change in the method of determining the rate base, it is clear that the statute contemplates that the base should be determined in accordance with existing legal rules; and it is basic in these rules that the present fair value of the property be ascertained so that rates may be established which will afford a fair return upon fair value and so will not be confiscatory in the constitutional sense. This we understand to be the construction given the Act in the recent case of Federal Power Commission v. Natural Gas Pipeline Co., 315 U. S. 575, 585, 586, * * *."

The legislative history of the Natural Gas Act supports the construction placed upon it by the Court of Appeals. Appendix A beginning at page 141 of this brief shows the complete legislative history which we shall briefly summarize:

The Public Utility Act of 1935 as originally introduced (Senate Bill 1725 and House Bill 5423, 74th Congress, 1st Session) included a provision as to rate base applicable both to Title II of the Act which was the Federal Power Act and to Title III which regulated natural-gas companies. Section 211, subparagraph (a), gave the Commission power to ascertain "the actual, legitimate, prudent cost of the property of every public utility" and subparagraph (c) provided that the Commission "shall fix such rate as will

allow a fair return upon the actual legitimate prudent cost of the property used and useful for the service in question." As originally introduced it was designed to make prudent investment the rate base.

The Senate Committee on Interstate and Foreign Commerce reported out a revised version of the Public Utility Act of 1935 (S. 2796) omitting Title III, relating to natural gas companies. The section referred to above was renumbered Section 208 and, as introduced and passed by the Senate, still referred only to the "actual legitimate cost of the property." The House Committee on Interstate and Foreign Commerce substantially amended the Senate Bill (S. 2796) and changed what had now become Section 208 of the Federal Power Act to read precisely as Section 6(a) of the Natural Gas Act now reads except that it referred only to electric companies and not to natural-gas companies.

The Chairman of the House Committee in explaining the change in the Senate Bill said (see Appendix A, p. 149 below):

"After the recent decision of the Supreme Court in a Maryland telephone case it is practically a futile thing, in my judgment, for any legislative body to try to write a rate-making base. * * * we have provided that rates shall be reasonable and just, and under the Supreme Court decision that means that the valuation must be based upon the current value of the property.

"Cost is an element of the rate base, but only an element. The cost of reproduction might be an element, but only an element. The one question is the current value of the property, and the Supreme Court will permit no deviation from this principle." (Congressional Record, Vol. 79, Part 9, p. 10378, 74th Cong., 1st Sess.)

The Maryland telephone case referred to above was West v. The Chesapeake & Potomac Telephone Co., 295 U. S. 662. In that case the Maryland Commission attempted to arrive at a rate base by adjusting historical cost by

means of general commodity price indices. The District Court reversed its order and itself arrived at a rate base by taking the book cost to the time of its determination, deducting the book depreciation reserve and adding an allowance for working capital. This Court held that neither the Commission nor the District Court had arrived at a figure reflecting present value and affirmed the lower court's holding that the order made was confiscatory and invalid.

Certainly the majority opinion adhered to the fair value rule and the minority opinion approving the Maryland Commission's rate base was predicated on the view that the Commission was being condemned for the method it used (trended prices) and not for the confiscatory result. After criticizing replacement value Mr. Justice Stone said, 295 U. S., 692:

"Present fair value at best is but an estimate. Historical cost appropriately adjusted by reasonable recognition of price trends appears to be quite as common sense a method of arrival at a present theoretical value as any other."

This case was decided immediately prior to the passage of the Federal Power Act. It was a case which the members of the Committees had studied and to which the Chairman of the House Committee expressly referred in the quotation previously given. Not only that but Congressman Cole, a member of the House Committee, in the debate on the bill said (Appendix A, pp. 150-151 below):

"The bill was originally drawn on the theory that for the purpose of just and reasonable rates the Commission should determine the actual and prudent cost of the property less accrued depreciation thereon. Mr. Justice Roberts, in delivering the opinion of the Court in the Telephone case, *supra*, made it very clear that such a provision would be unconstitutional and it was therefore stricken out. In lieu thereof there is new language and while that may not be entirely clear, it was inconceivable to those of us serving on the sub-

committee that any State or National commission establishing valuation of a public utility for rate purposes should do other than follow the very clear formula or standard now established by the Court. No one consideration alone as to value such as legitimate cost or prudent cost, is sufficient; but all elements must be taken into account, such as reproduction value, actual cost, going value, proper depreciation allowance, so that in the end, after considering the aforegoing and such other elements of value as are essential, leave a figure upon which the rate established thereon will not be confiscatory."

The petitioners apparently consider significant the initial failure of the Senate to adopt Senator Bailey's amendment requiring the use of "fair value" as the rate base (Com. Brief, 38; Cleve. Brief, 30). Clearly this means nothing, since the Bill as passed by the Senate four days later, on June 11, 1935, expressly provided for an actual legitimate cost rate base. Subsequently, in August, 1935, this was changed when the Senate concurred in the House amendment adopting the language in the present act.

To complete this history it only need be added that when the Natural Gas Act was later passed in 1938 Section 6 was taken directly from Section 208 of the Federal Power Act. The only change made was in substituting "naturalgas companies" for "public utilities" which latter meant electric power companies.

Thus it is plain that Congress by Section 6(a) of the Natural Gas Act did not authorize the Commission to fix a rate on the basis of depreciated book cost or depreciated actual legitimate cost, unless those under the circumstances reasonably reflected the present value of the property.

3. This Court Has Long Construed the Constitution As Requiring Utility Rates, However Fixed, To Allow at Least a Fair Return on Present Value and That Construction Should Not Be Reversed.

(Com. Brief, 40-70; Cleve. Brief, 56-59)

This Court itself has so often considered this matter, and Judge Parker for the Circuit Court of Appeals has so cogently and forcefully stated the legal basis and the reasons for the continuance of the present value rule (R. IV, 172-184) that we do no more than call the Court's attention to the precise issue that is presented and the principal reasons urged by the petitioners for changing the present value rule.

The Circuit Court of Appeals' decision on this point rests on the precise ground that the Commission "could not absolutely ignore the fact of increased price levels" in determining Hope's rates (R. IV, 181). It did not require the Commission to use reproduction cost or trended original cost or any price trends or any other specific formula. The discussion in the Commission's brief (pp. 42-49) under the heading "The Court Below Erred In Requiring That Price Trends Be Utilized in Determining The Rate Base" is beside the point. The Commission was left free to determine present value by any reasonable method it chose, including "investment cost" if this were "a true measure of the present value of the property notwithstanding increases in prices" (R. IV, 180).

(a) The Legal Basis of the Present Value Rule Is Sound.

The legal basis of the present value rule rests on three simple propositions:

(1) The property is held in private ownership; (2) the Constitution protects the property, not its cost, against confiscation, and (3) on the analogy of eminent domain there is a taking of property when the owner who is re-

quired to use it up for the public is denied a fair return and depreciation thereon. Those principles have been announced in many cases, most clearly in *The Minnesota Rate Cases*, 230 U. S. 352, remained the legal basis of the rule at the time of adoption of the Natural Gas Act (see West v. Chesapeake & Potomac Telephone Company, 295 U. S. 662, 671), and certainly have never been rejected in any subsequent decision.

The petitioners do not deny propositions (1) and (2) but they claim that the analogy of eminent domain is inapplicable to rate regulation which should rest solely on the broader principle underlying other price fixing. It is said that the regulation of rates is not a "taking" but is a mere restriction of the owner's use and enjoyment of his property similar to many other regulations, while "eminent domain is the power to command a sale" (Com. Brief, 60).

Nothing could better describe the regulatory power of the government over utilities such as Hope than the "power to command a sale." While this is not the sole difference, in ordinary price and other regulation of businesses which are not utilities the owner of the business is free to continue the operation of the business, or not, as he sees fit, and is free to sell his commodity, or not, as he sees fit. Not so the utility. It is required by law to continue its business unless the government permits it to stop.²³ It is required

(Continued on next page)

²³ Natural Gas Act, Section 7(b) (15 U. S. C. Section 717f (b)):

[&]quot;(b) No natural-gas company shall abandon all or any portion of its facilities subject to the jurisdiction of the Commission, or any service rendered by means of such facilities, without the permission and approval of the Commission first had and obtained, after due hearing, and a finding by the Commission that the available supply of natural gas is depleted to the extent that the continuance of service is unwarranted, or that the present or future public convenience or necessity permit such abandonment."

by law to continue to make sales of its product or service to customers who apply.²⁴ In this case Hope is certainly commanded to sell its gas. Thereby there is in each year taken for the public use all its property consumed in that service and the use of the remainder, for which just compensation must be paid.

After reviewing the legal basis of the present value rule Judge Parker in this case said (R. IV, 177-178):

"Property has no value except present value. Past value exists only in memory or in history, future value only in estimate or expectation. It is the property presently existing which belongs to the utility and is used by the public. It is that property which is depreciated through use and which is gradually being sold through depreciation to the public. And it is the value of that property as used which must be consid-

(Continued from preceding page)

Note the mistaken statements denying government compulsion on Hope to continue its service appearing in the Commission brief's footnote 25 (p. 62). The non-eminent domain cases there cited deal with the duty of a father to support his child, the liability of a person who voluntarily undertakes to do something for another, and the liability of a contracting party to a third party beneficiary. They have nothing to do with the legal compulsion on a utility to continue service.

²⁴ Natural Gas Act, Section 7(a) (15 U. S. C. Section 717f (a)):

"(a) Whenever the Commission, after notice and opportunity for hearing, finds such action necessary or desirable in the public interest, it may by order direct a natural-gas company to extend or improve its transportation facilities, to establish physical connection of its transportation facilities with the facilities of, and sell natural gas to, any person or municipality engaged or legally authorized to engage in the local distribution of natural or artificial gas to the public, and for such purpose to extend its transportation facilities to communities immediately adjacent to such facilities or to territory served by such natural-gas company, if the Commission finds that no undue burden will be placed upon such natural-gas company thereby: Provided, That the Commission shall have no authority to compel the enlargement of transportation facilities for such purposes, or to compel such natural-gas company to establish physical connection or sell natural gas when to do so would impair its ability to render adequate service to its customers."

ered in fixing rates that will reimburse the company for its partial sale through use and provide an adequate return upon investment. * * It must not be forgotten that it is the property owned by the utility, and not the cash invested by stockholders in its stock, that is devoted to public use; that this property is worn out in furnishing the service which the public receives and which the utility is bound to render; and that, unless the utility receives a rate sufficient to make necessary replacements at current prices with a fair return upon the present fair value of its investment, its property is being taken from it and given to its customers."

The legal basis of the present value rule including the requirement of just compensation on analogy to the taking of property under the power of eminent domain is sound.

The difficulties in the administration of the present value rule are not due to any unsoundness in this legal basis but are due entirely to another matter. For reasons familiar to all the dollars to be used in a rate base to represent present value can not be determined in the ordinary way. A reasonable substitute is necessary. If it be conceded that the usual formula that has been applied which includes reproduction cost has not always worked well as a measure of present value, that practical difficulty does not justify utter disregard of present value. There is not always an easy road to protection of fundamental civil rights, either of liberty or of property. Certainly it does not justify the usual line of reasoning evidenced throughout the Commission's brief and its Supplement, namely that since reproduction cost has not worked well therefore "prudent investment" should be adopted. An infirmity in a particular method of arriving at the dollars to represent the present value of the property does not change the fundamental legal basis that it is still privately owned and that the Constitution does not permit it to be taken either by way of eminent domain or by compulsory sale through compulsory service without just compensation.

In this connection it may be observed that the method of fixing a rate employed by the Commission in this case is based on a practical denial that the property is privately owned. The theory appears to be that consumers gradually acquire ownership of a utility through depreciation or other charges in the rate and that when these charges equal the cost of the property, no matter how low that cost may have been, the utility is not thereafter entitled either to return or depreciation on that property. Thus it says (Com. Brief, 83):

"There is no principle which would entitle it [Hope] to a continuing return on an item of property whose cost has been fully recovered from the rates received, and which thus does not represent an investment, even though the property involved remains in use."

That is to say when a company, through depreciation charges or other operating expenses has "recouped" its original cost, from that time forward it is required to continue to operate the properties but is no longer entitled to any return. This is but another way of saying that the property is now owned by consumers and not by the utility.

Nothing this Court said in the *Natural Gas Pipeline* case in any way supports this novel view of the petitioners or denies the common sense legal basis of the present value rule. In fact the rates before this Court in that case had been fixed upon a reproduction cost new rate base.

Nor is there anything to the contrary in Nebbia v. New York, 291 U. S. 502 (Com. Brief, 63), which was decided one year earlier than West v. Chesapeake & Potomac Telephone Company, supra, page 57. The opinion of the Court in each case was written by Mr. Justice Roberts and neither his opinion in the latter case nor that of the minority found any necessity for even referring to the Nebbia case. The controlling principles in the two cases are obviously different. In the Nebbia case no maximum price was fixed, but merely a minimum price, and so far as the governmental

regulation was concerned, anyone was free at will to charge more than this minimum price or not to sell at all. This distinction was clearly pointed out in the related case of *Hegeman Farms Corp. v. Baldwin*, 293 U. S. 163, where Mr. Justice Cardozo said:

"** * For an understanding of the complainant's position both in its economic and in its legal aspects, the fact is of critical importance that there has been no attempt by the Board to fix a maximum price in respect of any of the transactions subject to its regulatory power. What is fixed is a minimum only. None the less, the competition among dealers is so keen that in practice the legal minimum is the maximum that the appellant is able to charge. * * * * " (p. 169)

"" * The Fourteenth Amendment does not protect a business against the hazards of competition. Public Service Comm'n v. Great Northern Utilities Co., supra, at p. 135. It is from hazards of that order, and not from restraints of law capriciously imposed, that the appellant seeks relief. The refuge from its ills is not in constitutional immunities.

Much is made of a supposed analogy between the plight in which the appellant finds itself and that of public utilities subjected to maximum rates that do not yield a fair return. But the analogy, when scrutinized, is seen to be unreal. A public utility in such circumstances has no outlet of escape. If it is running its business with reasonable economy, it must break the law or bleed to death. But that is not the alternative offered where the law prescribes a minimum. An outlet is then available to the regulated business, an outlet that presumably will be utilized whenever use becomes expedient. If the price is not raised, the reason must be that efficient operators find that they can get along without a change. * * *" (pp. 170-171)

None of the other cases cited by the petitioners support their view that utility rates are constitutionally "reasonable" and not "arbitrary" when they produce less than a fair return on present value. These cases deal with oleomargarine, smoke control, obstructions upon navigable

waters, fish conservation, fire prevention, rationing and the like²⁵ (Com. Brief, 60-63; Cleve. Brief, 56-59). We know of no case where maximum prices have been fixed and it has not been held that upon judicial test inquiry should be made whether just compensation is allowed, except perhaps in war emergency anti-inflationary price regulation where no requirement is made that the vendor continue to sell. Cf. Wilson v. Brown, 11 Pike and Fischer OPA Service 612:17 (Emergency Court of Appeals, July 15, 1943).

(b) Considerations Urged by The Commission to Justify the Aplication of its Particular Rate Making Theories Regardless of Whether its Rates Allow a Fair Return on Present Value Are Unsound.

The Commission insists that it be permitted to use depreciated original cost even where it can not on any reasonable basis find that the resulting rate base is at least equivalent to present value or that its resulting rate is sufficient to allow at least a fair return on present value. In the case of utilities constructed in whole or in large part at the higher level of prices prevailing since World War I present value and depreciated original cost will frequently coincide for all substantial purposes. The Commission, however, insists upon the right to say that even when this is not true depreciated past costs shall control. To cite an extreme case, it insists that if Manhattan Island

²⁵ Oleomargarine—Powell v. Pennsylvania, 127 U. S. 678; Smoke Control—Northwestern Laundry v. Des Moines, 239 U. S. 486; Obstruction upon Navigable Waters—Monongahela Bridge Co. v. United States, 216 U. S. 177, Union Bridge Co. v. United States, 204 U. S. 364, West Chicago Street Railroad Co. v. Chicago, 201 U. S. 506; Fish Conservation—Lawton v. Steele, 152 U. S. 133; Fire Prevention—Standard Oil Co. v. Maryville, 279 U. S. 582; Rationing—Henderson v. Bryan, 46 F. Supp. 682; Morrisdale Coal Co. v. United States, 259 U. S. 188; Zoning—Euclid v. Ambler Co., 272 U. S. 365; Tree Conservation—Miller v. Schoene, 276 U. S. 272; Intoxicating Liquor—Mugler v. Kansas, 123 U. S. 623; Bricks—Hadacheck v. Los Angeles, 239 U. S. 394; Livery Stable—Reinman v. Little Rock, 237 U. S. 171; Right of Support—Pennsylvania Coal Co. v. Mahon, 260 U. S. 393.

had been acquired from the Indians by a utility and continuously thereafter devoted to public service, it could now go into the rate base at \$24.

In support of this view it urges a number of considerations (Com. Brief, 64-70; Com. Brief's Supplement, 66-89) under the proposition that "We submit that an acceptable and reasonable formula is the prudent investment standard adopted by the Commission" (Com. Brief, 64).

It is important to note that the "prudent investment standard" and the "prudent investment basis of rate regulation," as these terms are used by the various writers cited in the Commission's brief and in its Supplement, are not descriptive of the rate base and method of fixing rates which the Commission in fact employed in the present case. This fact is perfectly illustrated by the Commission's repeated references to experience in Massachusetts and California as demonstrating that its own mislabelled rate making theories are "sound and workable" and have been adopted by "many experienced regulatory bodies" (Com. Brief, 65). To this experience we first turn.

(1) Experience. While the phrase "prudent investment" originated in Massachusetts²⁶ the fact is that Massachusetts has never applied what various writers now call the prudent investment method of regulating rates, and it has certainly never applied the theories which the Commission applied in the present case.

Professor Irston Barnes in his book "Public Utility Control in Massachusetts," from which citations are made below, analyzed the claims as to the success of the Massachusetts system. He found:

²⁶ The term "prudent investment" originated in Massachusetts because the Commission of that state fixed rates on the amount of money stockholders had "honestly and prudently invested" in a utility although this was more than the then value of its property. In other words, the phrase was coined to justify including in rate base sums in excess of present value, and not vice versa. Wells, *Proceedings of the N. A. R. U. C.*, 1927, pp. 113-114.

- (a) In practice the Massachusetts Commission has rarely determined either the prudent investment or any other rate base and nowhere explains how to do it (*Ibid.*, pp. 105, 106, 118, 143, 145, 147, 149).
- (b) The small amount of litigation involving the Massachusetts Commission decisions is due to the extremely liberal treatment usually accorded utilities in that state. Of this Professor Barnes says:
 - "The normal conclusion must be that the utilities have in the past received more liberal treatment from the Massachusetts Commissions than they could have expected from an appeal to the Federal Courts" (*Ibid.*, p. 206; also pp. 138, 139.)
- (c) The outstanding characteristic of Massachusetts regulation is its method of determining fair return. The Massachusetts law requires a utility to sell stock to finance its requirements at not less than par. The result of this has been that the Massachusetts Commission has allowed utilities to earn sufficient money so that their stocks will sell always above par. Professor Barnes says "usually from 20 to 25 points above." (*Ibid.*, p. 154, also pp. 155, 173, 213.)

It is apparent from this statement that however successful the Massachusetts method may be it is not in any sense an application of the method used by the Commission in this case.

California has often been referred to in this Court and elsewhere as the leading exponent of the prudent investment method of regulating rates. We say regulating rates because as will be developed the prudent investment doctrine is not merely a method of determining rate base but a method of determining rates in such a manner as to avoid as many as possible of the troublesome disputes that have plagued rate litigation.

As to the California method it is thus stated by the California Commission:

"During its entire history in establishing reasonable rates for utilities similar to this company, to determine a proper rate base this Commission has used the actual or estimated historical costs of the properties undepreciated, with land at the present market value. Consistent with this, it has used the sinking fund method to determine the allowance for depreciation to be included in operating expenses.

"This historical method has dominated the Commission's findings for several principal reasons." (quoted in *Railroad Commission of California v. Pacific Gas & Electric Co.*, 302 U. S. 388, 395.)

As to the reasons for using an undepreciated rate base and the sinking fund method of determining the annual allowance for depreciation expense, the California Commission says:

"As this Commission has frequently pointed out, such conflicts and inconsistencies as have been discussed herein in the treatment of depreciation in rate cases may be avoided by the use of the sinking fund method. No estimate of the highly controversial issue of accrued depreciation is needed in this method, the undepreciated property value being used as the base. The amounts accrued are in most properties, as in this Company, invested in the property and with a reasonable interest return thereon are sufficient to replace the property at the end of its estimated useful life. The method has been followed for many years by this Commission." (Los Angeles v. Southern California Telephone Company, 39 Cal. R. Com. 739, 14 P. U. R. (N. S.) 252, 275 (1936).)

It will thus be observed that the rate base is the actual or if necessary, the estimated historical cost undepreciated with land at market value. On this the full rate of return is allowed. In addition there is included in operating expenses an allowance for depreciation calculated on the sinking fund method.

As to the amount of the annual depreciation allowance, the California Commission has said: "The depreciation annuity which this Commission found reasonable in 1916 was equal to 1.54 per cent of the rate base excluding materials and supplies and working cash capital. The depreciation annuity which has been allowed by the Commission in the various decisions since then has averaged practically the same amount. The depreciation annuity so determined is based upon a 6 per cent sinking fund and represents the estimated amount which, set aside annually with compound interest at 6 per cent, will be sufficient to cover the original cost of the various units of property at the expiration of their probable life." San Joaquin Light & Power Corporation, 21 Cal. R. Com. 545, P. U. R. 1922D 595, 625 (1922).

In more recent cases the allowances have substantially conformed with this 1½% (See Pacific Gas & Electric Company, 39 Cal. R. Com. 49, 1 P. U. R. (N. S.) 1 (1933); Los Angeles v. Southern California Telephone Company, 39 Cal. R. Com. 739, 14 P. U. R. (N. S.) 252 (1936)).

As to the rate of return the California Commission early adopted this principle:

"The Commission in fixing a rate of return must be liberal, lest too strict a policy result in turning capital to other fields of enterprise. California needs development by public utilities, and this Commission's policy should be a broad and liberal one, so as to encourage capital to develop the state by legitimate public utility enterprises where needed." (City of Palo Alto v. Palo Alto Gas Company, 2 Cal. R. Com. 300, 317-318 (1913).)

In applying this policy it has always given great weight to the historical cost to the utility of its capital but has added something to cost for profit. In justification of this the Commission has said:

"In this consideration, the same logic that justifies consideration of the reasonable historical cost of property for a utility such as this one, as the fairer basis for determination of rates, applies as well to the question of fair return. If the reasonable historical cost shall be used as the rate base, then it is apparent that

a fair return determined on the basis of present yield of securities, as suggested by Dr. Maltbie, is not applicable. Greater consideration should be given to the historical cost of moneys, though this alone should not be the measure." (Application of Pacific Telephone and Telegraph Company, 33 Cal. R. Com. 737, 772-773, P. U. R. 1930C 481, 513 (1929).)

As to the amount of this return the Commission, writing in 1921, said:

"The Commission in fixing rates for utilities, such as applicant, has generally found that 8 per cent was a reasonable return under conditions prior to 1918. Since January 1, 1918, money invested in property of this applicant has cost from 7 per cent to 8 per cent, and if a utility is to continue to meet its obligations and attract capital it must be expected that some profit on its enterprise be allowed in addition to the bare cost of the money invested. If we consider a return of 8 per cent as reasonable upon money invested prior to January, 1918, and 9 per cent on the money invested since that time, we find that the average rate of return upon the present investment in operative property in 1921 would be 8.3 per cent, * * *." (Application of Southern California Edison Company, 19 Cal. R. Com., 595, 603, P. U. R. 1921D 63, 75.)

Consistent with its theory the California Commission in recent years has fixed a somewhat lower rate of return than formerly although we know of no case in which it went below 7% on the undepreciated historical cost and this in the case of the *Pacific Telephone and Telegraph Company*, 33 Cal. R. Com. 737, P. U. R. 1930D 481 (1929).

Thus the essential features of the California method are these:

- (1) An undepreciated historical cost rate base; actual if possible, estimated if necessary.
- (2) Annual depreciation expense fixed on a sinking fund method at a sinking fund rate somewhat lower than the rate of return. Thus, the interest charge on the depre-

ciation reserve must be added to the reserve by the utility from its return.

(3) A liberal rate of return somewhat above the historical cost of capital to the utility.

This we suggest is the prudent investment method of regulating rates which Mr. Justice Brandeis advocated in his classic exposition in the Southwestern Bell Telephone case. His rate base was to be original cost corrected by historical cost if necessary, and presumably undepreciated since he did not mention depreciation and since his principal object was to avoid as many as possible of the trouble-some questions in rate-making. Of equal importance in his mind was the fact that the rate of return was to be determined on the basis of the capital cost of money to the utility and not on the basis of costs current at the time of regulation. (State of Missouri ex rel. Southwestern Bell Telephone Co. v. Public Service Commission, 262 U. S. 276, 304-308 (Brandeis, J., concurring).)

As an illustration of the California method we take the case of Los Angeles Gas & Electric Company v. Railroad Commission, 289 U. S. 287.²⁷

The Commission found a historical cost of \$60,700,000. This was made up of a rate base established by the Commission in 1917 "upon a valuation made by the Commission's engineers as of October, 1915" (p. 292) to which was added net additions and betterments as entered upon the company's books. Land was taken at current values (pp. 292-293). No accrued depreciation was deducted. Both the Commission and the company introduced evidence of reproduction cost and accrued depreciation and on the basis of this evidence the Commission found a fair value (undepreciated) of \$65,500,000 (p. 298).

²⁷ In the dissenting opinion of Mr. Justice Stone in West v. The Chesapeake & Potomac Telephone Co., 295 U. S. 662, at 693, this case was referred to as one in which the California Commission "made its valuation on the basis of prudent investment."

As a depreciation annuity the Commission allowed \$1,072,000 equivalent to 1.7% of the historical cost rate base (p. 303).

By way of return the Commission allowed a sum equal to 7.7% on the historical cost rate base or 7% on the fair value rate base, both undepreciated (p. 292). While the company was engaged in both the natural gas and electric business it was the natural gas property that was involved in this case.

As we develop later in this brief, if the California method were properly applied to Hope its rate base would have been double that used by the Commission and its permissible earnings more than double (infra, pp. 114-115). For present purposes we content ourselves with pointing out that the Commission method of regulating rates does not bear the slightest resemblance to the prudent investment method of Mr. Justice Brandeis or as practiced in California. It does not take an undepreciated rate base. It purports to estimate accrued depreciation, and in this case has grossly over-estimated it. It does not recognize the historical cost of money but fixes the rate of return on a basis that is less than current cost of capital to natural gas companies.

The only additional experience cited in the Commission's brief is that of the Commission itself and so far, except for Hope, it has dealt only with companies like its water power licensees or with the western natural gas pipe line companies. All of these properties have been constructed within recent years and at price levels where original cost will approximate a fair reproduction cost.

We submit that there is no experience anywhere under the rate-making method used by the Commission in this case.

(2) Accuracy. The Commission argues that its depreciated cost rate base can be determined "expeditiously, accurately, and to a degree of exactness that leaves

substantially little ground for conflict" (Com. Brief, 65). In this case the parties are in violent conflict over original cost and over the determination of accrued depreciation. While here there is no question but that all expenditures were prudently made it is not idle prophecy that violent and prolonged conflict could easily arise over that issue. In fact such an issue appeared in the case of the manufactured gas equipment in the Los Angeles Gas case, supra, page 72. Indeed the necessity for determining today whether a certain action was prudent at a prior time, from which hindsight cannot be wholly excluded, is bound to result in numerous controversies.

Moreover the dollars that will be set down for original cost with such "delusive exactness" will not state with even remote accuracy the true or economic cost of the property or the sacrifice the owner made to construct it. Certainly the dollar is not what it used to be in exchange value or in purchasing power. Only its symbol remains the same.²⁹ When, therefore we set down the figures as

(Continued on next page)

²⁸ Mr. Justice Holmes in City of Louisville v. Cumberland Telephone and Telegraph Co., 225 U. S. 430, 436.

²⁹ For nearly 100 years prior to 1933 a dollar was the right to receive 23.22 grains of fine gold. The exchange value of that gold expressed in other commodities has varied widely over the years due principally to fluctuations of other commodities, but to some extent due to fluctuation of gold. In 1933 the quantity of gold in a dollar was changed to 15-5/21 grains, only .9 fine. More recently when specie payment was suspended it ceased to be the right to receive anything in gold. Whether the dollar of the future will be tied to gold or to commodities no one can say.

It is clear that for every dollar Hope spent in the construction of property prior to World War I it gave up the right to demand 23.22 grains of fine gold. The physical properties for which it exchanged this right to gold were placed at the service of the public. What justification would there be for measuring Hope's rights by the fluctuating value of fine gold which Hope exchanged for its property, instead of measuring it directly by the present value of the land, pipe, and other property for which Hope made the exchange? The pipe, not the gold, is devoted to

to dollars originally spent in the construction of Hope's property in every year from 1898 to date it gives an appearance of accuracy when in fact it merely represents widely varying exchange values of the dollar over a long period of years.

The truth is that it is no more difficult to estimate with substantial fairness the present value of the property devoted to service than it is to estimate the present economic value of the original dollars that were exchanged for the property. To use merely the sum of the dollars originally spent, in utter disregard of their economic value, is merely to avoid and not to solve the problem. Certainly Constitutional protection of property rights disappears if the courts shut their eyes to what every man on the street knows—that the dollar today is worth only 50% of the dollar several decades ago and that the dollar of the future may be worth even less.

(3) **Stability**. The Commission argues that original cost provides a stable rate base (Com. Brief, 66) and that this stability will appeal to investors. We suggest "inflexibility" is a more suitable word than "stability" to describe this attribute.

Rates have been fixed on the basis of present value for about 50 years. We know from this experience that this method has attracted capital to public utility enterprises until today they are more fully developed in the United States than in any other part of the world. The cost of service is lower here than in any other part of the world. Securities of public utilities have attracted both private and

⁽Continued from preceding page)

public service. But the original cost basis does not even measure Hope's rights by the dollars it exchanged, which represented 23.22 grains of fine gold, nor yet by the dollars represented by 15-15/21 grains of gold, not so fine, but by present day dollars that have much less exchange value than even 15 grains of gold. (See article in forthcoming (October) issue of *Michigan Law Review* by Thomas L. Long of Detroit.)

institutional investors to the extent of many billions of dollars. It would, of course, be as wrong to claim that this is all due to the present value rule as it would be to claim that the present value rule had no part in this development.

One reason, we suggest, for the persistence of the rule through periods of depression and prosperity has been its flexibility. The Commission now proposes to substitute for this an absolutely inflexible rule, to be applied to all utilities, electric, gas or other, old or young, which it is said will always be fair to both consumer and investors and will protect the consumers from paying more than a return on investment and the investors from "depreciation in value during times of depression."

Here is defiance to ordinary economic laws. If deflation occurs and prices go down the utility is still to have a rate base higher than the current value of its property. This can only mean that consumers in such periods are to pay the same dollars as before, although they have fewer dollars and should pay less. On the other hand, if prices rise the consumer is to be protected from paying higher rates even though his wages have risen along with all other prices. This means utilities and their owners, at a time when the consumers are fully able to pay higher rates, must nevertheless suffer.

If we are practical we recognize that over a long period of years, in spite of periods of deflation followed by periods of inflation, the world wide trend of prices has been up. Part of every inflation becomes permanent. But suppose, as many well informed persons now fear, with an already high level of prices we have further serious inflation. In the case of a utility plant it now costs about \$2 to build what prior to World War I was built for \$1 (Ex. 20, R. I, 207, col. (6)). Suppose in the future it takes \$5.

Under these circumstances the rigid rate base based on the \$1 and \$2 costs would effectively destroy a large part of the present investment in the public utility industry. There is no way out. If the owners of utility equities—and this includes not only millions of private investors but insurance companies, banks, colleges and other institutional investors—are only permitted the opportunity to earn on the number of dollars originally invested at a time when those dollars have only 1/5th or 2/5ths of their former purchasing power, the effect will be to reduce the value of all such investments by 4/5ths or 3/5ths.

The truth is that this so-called "stability" in the original cost rate base is not a virtue but one of its most serious vices. It is a strait-jacket, which is never a cure.

Public utilities in the future will have to do business on the basis of the future value of the dollar. It is these dollars that they will collect from their customers and that they will use for the payment of wages, operating expenses, taxes and other charges. It is with these dollars that they will have to replace worn out property. If replacement costs are two or three times original cost and the utility's annual allowance for depreciation has been based only on original cost, then the utility must either sell capital securities merely to keep going, if it can, or face bankruptcy. Under such circumstances there is not the slightest justification for requiring the owners of utilities to get a return based on pre-World War I dollars or on any other than those currently in use in the commercial world.

Plainly a strait-jacket on a rate base in an economic system where prices and values are constantly fluctuating is neither desirable nor reasonable.

- (4) Investor Appeal. The Commission argues (Com. Brief, 66):
 - "A basis of rate regulation which maintains the Company's financial integrity and permits it to raise the required capital cannot be deemed arbitrary."

No support of any kind is given for this assumption as to financial stability except a reference to practical experience in California and Massachusetts. As we have seen, *supra*, pages 67 to 73, the method of rate regulation in California and Massachusetts is so wholly unlike anything the Commission has done in this case that successful experience there gives no support to the Commission's theories in this case.

The Commission's statement, however, recognizes what this Court has always recognized, namely that any scheme of rate regulation that will not continue to attract private capital to public utilities is unreasonable and must fail.

We know from long and successful experience that the present value rule has attracted capital to public utility enterprises at reasonable costs. What assurance does the Commission's method as applied in this case give that it will continue this record?

To simplify the problem let us consider the position of an individual who is contemplating the construction of a public utility. He will be told that that part of his dollars afterwards judged to have been "legitimately" spent will be included in the rate base; that the rate base will never reflect changes in price levels either up or down; and that on that rate base he will be entitled to receive a return and an allowance for depreciation, if successful operation permits rates high enough to cover those amounts. According to the further theory of the Commission in this case, when the total depreciation charged equals the cost of the property he will thereafter no longer be entitled to any return or depreciation (Com. Brief, 83, 105-106).

What he will be told about the measure of the rate of return is not clear. The Commission's brief advocates a rate of return based on "current costs of capital" on page 66, but in a note on page 67 it says:

"And if some account must be taken of the factor of increasing prices as bearing upon the instability of investment, this may readily be accomplished by altering the rate of return."

In the present case, however, the Commission actually fixed a low rate of return on the basis of current costs of capital and disregarded the greatly increased price level.

Thus on the Commission's theory as here applied (1) the utility owner will be permitted, if he can, to earn a return on the dollars invested, less accrued depreciation, and (2) at a rate of return based on future money market conditions. The utility owner has not the slightest chance for a profit to compensate him for the risks of loss that he runs.

He is asked to lend his money without any obligation or security for the payment of interest (return) or for the repayment of principal. He will get his return and a restoration of that part of his investment "legitimately" made only if the enterprise is successful. By no possibility can he get more than his investment, plus return and he may lose it all as did many investors in interurban and street railways.

It does no good to argue that a public utility with a return of $6\frac{1}{2}\%$ can issue bonds at 3% and thus pay a much larger return upon its common stock. Every dollar issued in bonds increases the risk of the common stock and so increases the return necessary on it. The rate of return is fixed having in mind the over-all cost of capital to the particular utility including money raised by the sale of bonds and the sale of preferred and common stocks. For purposes of present argument we must assume that the rate will fairly represent the composite risk of all. So considered this Commission theory assumes that an investor in common stocks will accept the terms of a bond minus the security that a bond offers and minus any obligation either to return his money at any time or to pay a stipulated return.

He can not even contemplate a continuance of the rate of return upon the basis of which he was originally asked to supply funds. His unsecured investment is subject to the still further risk of a future reduction in rate of return based on then current money rates, which when applied to a then depreciated dollar gives him but a fraction of the economic return he anticipated when he originally advanced his more valuable dollar.

That money, particularly equity money, will not continue to flow into public utility enterprises on any such bases seems too obvious for controversy. Commissions and courts can control rate base, rate of return and allowable operating expenses, but they cannot control the economic laws that regulate the flow of money into new or old enterprises. If the terms they impose are not satisfactory to the investing public the money will not be forthcoming. It will go into other channels.

There is no experience that indicates, and there is not the slightest ground for the belief, that private investors will continue to supply the equity money for public utilities whose rates are regulated on the theory here applied by the Commission. The imposition of any such method of rate regulation as here advocated in the end means either government financing or government ownership of public utilities.

D. THE COMMISSION ARBITRARILY DEDUCTED IN ITS RATE BASE MORE FOR ACCRUED DEPLETION AND DEPRECIATION THAN EXISTED IN FACT.

(Com. Brief, 89-99; Cleve. Brief, 46-52)

As we have seen, the prudent investment method of rate making as employed in Massachusetts and California does not call for deduction of accrued or existing depreciation in determining the rate base. Such a deduction is of course a necessary step in determining the present value of utility property (R. IV, 189) which the Commission never undertook to do. Nevertheless it did make a large deduction for accrued depreciation (Opinion, R. I, 36).

Both the petitioners state the fundamental question on this point to be whether the Commission's "method" of determining actual existing depreciation is reasonable (Com. Brief, 4, 89; Cleve. Brief, 8, 20, 47). The true issue obviously is the reasonableness of the Commission's results, as the Circuit Court of Appeals held (R. IV, 189-193). Anything deducted by the Commission in arriving at its rate base in excess of the depletion and depreciation existing in fact in Hope's properties plainly confiscates them.

There was no disagreement between the parties as to the underlying principles of depreciation that should be applied: that true depreciation is the extent to which the service or economic life of the property has been consumed, and that accrued and annual depreciation must be harmonized. The petitioners' general discussion of these principles is purely of academic interest, since all parties agreed upon them and Hope applied them.³⁰

³⁰ This was clearly developed at the hearings:

[&]quot;The Witness: [Rhodes] Well, in general, the methods followed by the Commission and the methods followed by me differ only as to the order of procedure. The Commission first found depreciation rates—

By Mr. Cockley:

[&]quot;Q. (Interposing) You mean the Commission's Staff?

[&]quot;A. Yes, the Commission's staff first found rates of depreciation, and then from these rates of depreciation they computed accrued depreciation of the property.

[&]quot;In my work I determined directly the accrued depreciation in the property, and I computed the rates of depreciation required by the Company to meet its losses.

[&]quot;Both methods, when correctly applied, use accepted accounting procedure.

[&]quot;'Q. Now will you tell us why you chose the method you did, rather than the method that the Commission used or the Commission's staff used?

[&]quot;A. There were a number of reasons for my choice, the principal one of which was that since I was primarily interested in determining accrued depreciation in the property, I determined it directly from measured and observed facts.

[&]quot;The Commission's method is based upon determining service life, largely a matter of judgment not supported by facts in the Company's experience. There is no mortality experience that means much in property such as Hope's natural gas property.

⁽Continued on next page)

This Court has already called attention to the inherent difficulties of determining actual accrued depreciation by the Commission's roundabout method of estimating service lives and then using them to compute a depreciation reserve. In *Lindheimer v. Illinois Bell Telephone Company*, 292 U. S. 151, 168, it said:

"If the predictions of service life were entirely accurate and retirements were made when and as these predictions were precisely fulfilled, the depreciation reserve would represent the consumption of capital, on a cost basis, according to the method which spreads that loss over the respective service periods."

It then went on to say that the burden of showing the correctness of the depreciation allowances arrived at by the Telephone Company on that method—

"" * " is not sustained by proof that its general accounting system has been correct. The calculations are mathematical but the predictions underlying them are essentially matters of opinion. They proceed from studies of the 'behavior of large groups' of items. These studies are beset with a host of perplexing problems. Their determination involves the examination of many variable elements, and opportunities for excessive allowances, even under a correct system of accounting, are always present. The necessity of check-

(Continued from preceding page)

"Furthermore, in starting from a judgment figure, the computing of the accrued depreciation in the property magnifies any errors in accounting procedure or any difference between the accounting procedure followed by the Company and that which somebody now thinks it should have followed.

"When accrued depreciation in the property is directly determined from the property itself, the property and the condition of the property is the test of the method; but when the depreciation in the property is calculated by the roundabout method of judging as to the service life and going through 40 years of accounting records, the only test of the correctness of the Commission's result is whether or not it compares with the facts which can be found by examining the property.

"I ascertained those facts first, by my method, and that is the reason I chose it." (Tr. 5239-5241).

ing the results is not questioned. The predictions must meet the controlling test of experience.

"In this instance, the evidence of expert computations of the amounts required for annual allowances does not stand alone. In striking contrast is the proof of the actual condition of the plant as maintained—
* * *." (292 U. S., 169-170.)

This Court then concluded that the annual depreciation charges determined by that straight line method and the resulting depreciation reserve were erroneous, when so tested by comparison with the actual condition of the plant—"in the face of the disparity between the actual extent of depreciation, as ascertained according to the comprehensive standards used by the Company's witnesses, and the amount of depreciation reserve" (292 U. S., 174-175).

This necessary check upon the results reached by the Commission's Staff was never made. The various Staff members worked separately on the various separate parts of the formula set up for them to follow (supra, pp. 26 to 27). No Staff witness reviewed the results and testified that they in fact reflected accurately the accrued depreciation and depletion now existing in Hope's property. This is astonishing but true. A check of results would of course have disclosed the errors in service lives and of application of the method (supra, pp. 26 and 27) which produced the arbitrary results next referred to. All any of the Commission witnesses ever claimed is that the general method they used was a good one, and this is all the briefs of the petitioners say here.

Had the Commission checked the results of its Staff's work, as the court below did, instead of being concerned only with general principles and general methods (Opinion, R. I, 36-46), it would have discovered the following among other grossly arbitrary and unreasonable results:

(1) Hope's well equipment, having an adjusted book cost of \$7,610,510 at the end of 1938, the Staff depreciated

to a net book cost of \$3,227,807 (Ex. 61, R. III, 189, 191). Only 42.4% of the book cost thus went in the rate base. This is less than the salvage value of that equipment, which over the past ten years has amounted to 65.2% of the book cost (Ex. 21, 4-5). In other words, the Staff wrote down the book cost of Hope's well equipment to less than two-thirds of its salvage value as established over a long period of years. So gross was this error that the Commission in its Opinion corrected it in part by recognizing that the depreciation rates used in its calculations were excessive and, consequently, reducing its "Accrued Depreciation" by \$566,771 (Opinion, R. I, 44). However, even after this partial correction the Commission's "rate base" for Hope's well equipment is only three-fourths of the book cost of the salvage which Hope has been obtaining from its wells.31

This "rate base" is of course an even smaller fraction of the salvage of well equipment in terms of present prices.

(2) In the case of field line equipment having a book cost of \$7,934,169 at the end of 1938, the Commission's "accrued depreciation" deducted from its adjusted book cost leaves a net book cost or "rate base" of only \$4,088,602, or 51.5% of the book cost (Ex. 61, R. III, 189, 191). Hope's actual experience in gross salvage of field line equipment has been 56.7% over the past ten years (Ex. 24, 26). Thus, the Commission has written down all of Hope's field line pipe to less than the gross salvage value of this pipe on a book cost basis as established by Hope's actual experience.

³¹ Actually after deduction of the Commission's hypothetical reserve for future well abandoning costs, *infra*, pp. 86-87, the Commission allowed in Hope's rate base only \$1,687,300 or 22.2% of its adjusted book cost of Hope's well equipment for 3300 wells. This amount compares with Hope's \$6,133,000 or 56% net present value after deducting well abandoning costs (Ex. 124, R. III, 204), with which Cleveland's brief (pp. 50-51) says comparison should properly be made.

On the basis of current pipe prices, rather than the prices Hope paid years ago, the Commission's "rate base" for field line pipe would, of course, be very substantially less than the present salvage value of this pipe.

(3) In the case of compressor station equipment having a book cost of \$7,683,672 at the end of 1938, the Commission has deducted "accrued depreciation" so as to leave a net book cost or "rate base" of \$4,579,853, or only 59.6% of the book cost (Ex. 61, R. III, 192, 194). Hope's actual experience in gross salvage on compressor station equipment has averaged 56.4% over the past ten years (Ex. 24, 29). Thus, the Commission has used as a rate base for Hope's compressor station equipment only a few dollars more than the gross book salvage value of this equipment.

On the basis of the higher current prices for compressor station material it is obvious that the Commission has used no more than salvage value for this equipment.

- (4) On properties purchased by Hope from prior utilities the Staff and the Commission assumed, without any investigation, that whatever depreciation reserves the prior utilities had set up on their books accurately represented the accrued depreciation on those properties as of the date of their purchase by Hope. By using these reserves as set up by predecessor utilities instead of reserves accumulated at the Staff's own annual depreciation rates applied to these purchased properties, the Staff, and the Commission in its Opinion, overstated its "Reserve Requirement" or "Actual Existing Depreciation," and understated its "rate base," by \$743,927 (Ex. 137, 3, Tr. 2917, 6502).
- (5) On communication equipment, i.e., telephone lines and equipment, having an adjusted book cost as of the end of 1938 of approximately \$250,000 the Staff, and the Commission in its Opinion, deducted an "Adjusted Depreciation Reserve" of \$185,000. It was admitted by Commission witness Dunn that this reserve was sufficient to take care of all the past retirements of communication equipment

property that had ever occurred over Hope's entire history from 1898 on (Tr. 3781-3782), and that if he had been able to get all of the actual retirements in the past he would have deducted them from his computed reserve, but these figures not being available he did not do so (Tr. 3782-3783). In other words his "accrued depreciation" includes the depreciation not only in the existing property but in all of the property of this sort Hope has ever had, including that retired from service during the past 40 years.

(6) The Commission deducted from the book cost of Hope's properties as a part of its "Adjusted Depletion Reserves" the sum of \$2,107,261 for what is labeled "Cost of Abandoning Gas Wells" (Ex. 61, R. III, 188). This cost is one that is incurred by Hope for cementing in and plugging wells in accordance with West Virginia laws at the time they are abandoned. The cost of this is an operating expense when abandonment occurs and has nothing whatever to do with depreciation or depletion of book costs or any other costs as the Staff admitted (Dunn, R. II, 512-513).

The \$2,107,261 represents a hypothetical reserve which the Commission claimed Hope should have set up in the past for the future cost of abandoning all of its present 3300 gas wells. It was not limited to the 772 wells whose drilling cost was included in the Commission's adjusted book cost. The Commission has thus in this instance reversed Hope's former accounting practice and set up a capital account in place of an operating expense.

From the very beginning of operations Hope, in accordance with accounting practice that was admittedly good then and still is (Dunn, R. II, 512), charged the cost of abandoning gas wells to operating expenses when wells were actually abandoned (R. II, 511-512). In fact it was required so to do by the 1923 West Virginia code of accounts (R. II, 511-512) and until West Virginia's present code became effective in 1939.

Nevertheless, because the Commission's new Uniform System of Accounts now requires that a reserve be set up each year for future well abandoning costs, the Staff assumed that Hope should have set one up for this purpose in the past (R. II, 515, 518). In this case Hope's past accounting practices as to all well abandonments are not to be "frozen," although as to well drilling costs they are (supra, p. 41). Here again is an inconsistency by the Commission in applying its accounting theories which is arbitrary and unreasonable.

Of course in determining the present value of property the economic encumbrance of future abandoning costs must be recognized and the Circuit Court of Appeals, we believe, properly so held (R. IV, 192-193). In determining the present value of Hope's approximately 3300 wells Hope did deduct future abandoning costs from the present depreciated value of the equipment in these 3300 wells. But the Commission's rate-fixing method is not concerned with property now in existence or with present day values—hence it should not have been concerned with this encumbrance on present value.

It will be observed that the Commission's brief does not attempt to defend the results reached by the Commission. Instead, it is stated in a footnote (p. 94) that the Circuit Court of Appeals overlooked the inspection of Hope's properties made by Commission engineer French as an aid in arriving at his estimated service lives. This inspection was called to the court's attention in the Commission's brief before that court (p. 58), but the court knew from the record that neither Mr. French nor any other Commission witness ever testified that the Staff's results in fact reflected the actual depreciation in Hope's property as checked by this inspection or any others.

There is also a footnote criticism (Com. Brief, 95) of the Circuit Court of Appeals' use of the term "salvage value." The fact is that the court used this term precise-