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DUE PROCESS IN VALUATION OF LOCAL UTILITIES

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*Argumentum ab inconvenienti plurimum valet in lege. Non solum quod licet sed quid est conveniens est considerandum. Nihil quod est inconveniens, est licitum.*¹

I THE INTERESTS AND THEORIES INVOLVED IN RATE MAKING

IN OUR anxiety to pursue logic to its bitter end, and to reduce all law to rules that can be ascertained with mechanical certainty, we are often prone to overlook the great jurist's suggestion that one of the purposes of the law is human convenience. After all, the primary justification of any rule is what it accomplishes to solve a concrete social problem. Its logic and reason are important, but must ultimately give way to the pragmatic test of success or failure of the law in operation.

Volumes of discussion have been written on the economic side of the question of public utility rate regulation, and scarcely less voluminous are the articles, books, and decisions devoted to the legal theory of "rate making." And perhaps it is because learned lawyers, economists and engineers have argued and disagreed upon almost every conceivable phase of the theory, that the practice of rate making still remains unsettled in its most important phase, "valuation for rate making purposes."

It is not the desire of the writer to add to, or attempt a reconciliation of the theories already advanced. If any contribution is to be made at this time, it lies in an examination and evaluation

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¹Coke upon Littleton, sec. 87, 66a. "The argument from inconvenience is of greatest strength in the law for not only what is permissible but what is convenient is to be taken into consideration. Nothing that is inconvenient is permissible." For other examples of the force of the argument from inconvenience see *id.* sec. 138, 97a, sec. 231, 152b, sec. 269, 178a, sec. 440, 261b, sec. 478, 279a, sec. 665, 351b, sec. 772, 379a, sec. 732, 383a; see also Broom, Legal Maxims 127-129 and cases there cited.

of the results which are being achieved in the actual practice of rate regulation. This paper turns its attention entirely to one phase of the whole problem, the methods followed and the practical results obtained by the federal courts in dealing with the question of valuation.²

Before examining the procedure and questions of law raised in these cases, it is necessary to review briefly the interests in rate making cases and the general economic theories upon which prices of public utility goods might be determined.

The usual parties to public utility rate cases before the courts are the utility corporation on one side, and a representative of the regulatory body on the other.³ But it is a well known fact that both of the nominal parties are merely convenient legal fictions to designate, or camouflage, the real human interests involved. The corporation stands in a direct representative capacity for the investors, and indirectly for the executives and the workers in the industry. The commission represents a still more complex body of interests, those of the actual consumers or purchasers of the utility service, and those of the state or the general public.

The ends which the corporations ultimately desire to realize are a maximum of financial return, and the fullest possible freedom of action in the conduct of the industry. These interests stated concretely are a high rate of return on the investment, a freedom to make innovations in service, and a guarantee of security against losses. The consumers, on the other hand, are interested in a maximum of utility in exchange for a minimum of inconvenience—that is, in continuous service, improvement of methods and product, and lowest possible rates. The state, or public at large, desires a maximum of production and a normal industrial advancement consistent with the progress of a changing social order, concretely, a maximum of continually improving service, at rates which equitably distribute the economic benefit of the industry to both producer and consumer, achieved with the least outlay of money and time spent in supervision by the commission and review by the courts. All are interested in a

²For a discussion of state cases on this problem see Whitten & Wilcox, *Valuation of Public Service Corporations*, ch. VII, VIII, X, and XIII.

³It is not unusual to find many other parties to the suit before the public service commission. As an example of this see *McCardle v. Indianapolis Water Co.*, 272 U. S., record p. 10, where the city of Indianapolis, the Chamber of Commerce, the Central Labor Unions, and fifteen civic organizations appeared before the commission.

speedy trial and a reasonable predictability of the result, "in order that there may be a government of law and not of men."

Theories of rate making will be found to differ to the extent that their advocates represent one or the other of these points of view. The rates of the unregulated corporation will be determined only upon the principle of what the traffic will bear. That is, the enlightened directors will set their rates at a point which will immediately, or in the long run, yield the largest net return to the company ⁴

The consumers, on the other hand, will insist that rates be set at a point which will yield them a maximum of service at the greatest economic profit to themselves. Skillfully applied this theory would result in efficient service at cost or less.⁵

The public interest will demand a rate which yields the maximum of social wealth in the form of useful production. This would result in the so-called competitive compromise, or economic theory of rate making.⁶

It should be noted that in each of these theories the cost of production is a secondary consideration. The corporation has its eye on gross return and clear profit, the consumer on maximum service at minimum cost to himself, and the public welfare demands the production of social wealth and happiness.⁷ The cost of

⁴Their success in this effort to get the largest financial return from the consuming public will depend upon many factors, the most important of which are: the existence of monopoly conditions and the ability of the executives to estimate the demand for the service at various levels of prices, and the ease with which prices and types of service may be changed without disrupting business conditions. See Spurr, *Guiding Principles of Public Service Regulation*, ch. X, Barker, *Public Utility Rates* 11, Nash, *Economics of Public Utilities* 242.

⁵Some of the factors affecting the consumers' ability to get such rates will be the existence of competition, the ratio of the combined bargaining power of the purchasers to that of the company, or the consumers' power to fix rates either through cooperative production, public ownership, or intelligent commissions with heavy leanings toward the consumers' interests. For an attempt to approach this theory from the cost side see Barker, *Public Utility Rates*, ch. IV

⁶Under this theory, rates are set at a point which they would reach in a free market under the existence of normal or theoretical competition, or at a point which would secure maximum production consistent with an equitable division of the profits of the industry between the producer and consumer. Cabot, *Address Before American Gas Association*, October, 1926.

⁷Some economists, usually those representing the companies, have argued that in the long run all these interests will prove to be identical: and that the only function of the commission is to set the rates at this optimum point which will give the maximum of return to each. However this may be in theory, it is certain that no case has yet arisen where the various parties to the litigation could be persuaded that their interests were identical in every respect.

service⁸ is only one of the items to be considered in rate making, and its only function is to set a limit of gross return below which rates cannot long remain if the industry is to be conducted by unaided private capital.⁹ Thus it is possible to have effective rate regulation without placing much emphasis on the cost of service, with its accompanying problem of valuation.¹⁰

II RATE MAKING PRACTICE, THE FEDERAL QUESTION

Rate making in practice has not followed consistently any theory. In the early stages of the growth of public utilities in this country the rates were fixed by competition, if it existed, by contract between the company and the community served, by charters and franchises, by legislative fiat, or by the companies themselves.¹¹ As each utility rapidly developed into a monopoly in its field,¹² each followed as best it could a course which approached the theory of charging what the traffic would bear. In this situation the only limits on the companies' ability to get a maximum return were the franchise and other contracts which they had made with governmental bodies, the legal requirement of a "reasonable rate" or "reasonable return," the growing fear of public ownership,¹³ or compulsory rate fixing.

⁸Of course it is impossible even with the best cost accounting methods to determine exactly the cost of any particular service within the field covered by the business, as, for example, the cost of carrying a passenger on a railroad handling both freight and passengers. Thus particular rates are never set on a cost basis; but rather in relation to their contribution to the total income. For the accounting problems involved see Nash, *Economics of Public Utilities*, ch. IX.

⁹Many public utilities are operated on a basis of contribution to cost of service by the public. These contributions may take the form of subsidies, land grants, private ownership and state operation, state ownership and private operation, or both governmental ownership and operation. For a summary of the development of government ownership see Glaeser, *Outlines of Public Utility Economics* 677 ff. Nash, *Economics of Public Utilities*, ch. XIV.

¹⁰The policy of valuation as a basis of rate making has been criticized in England, see L. R. A. 1916F 600. For the English method see Glaeser, *Outlines of Public Utility Economics* 299-304, and C. S. Morgan, *Regulation and Management of Public Utilities* 157 ff.

¹¹For a detailed discussion of this development see Glaeser, *Outlines of Public Utility Economics*, ch. IX, X, XII.

¹²Effective competition over the whole field of rates now is removed almost entirely. If it exists at all today it is only at the fringes of the business, where the service is similar to that rendered by other companies, as, for example, the competition between gas and coal for heating, or electricity and gas for lighting purposes.

¹³On the extent and success of public ownership see Nash, *Economics of Public Utilities*, ch. XIV. Thompson, *Public Ownership of Public Utilities*; National Electric Light Ass'n, *Political Ownership and the Electric Industry*.

The rise of public service commissions, with increasing attempts to establish a reasonable return, soon resulted in legislation empowering the commission to fix and change rates.¹⁴

Due to the fact that each commission has a history of its own and operates under special legislation, it is impossible to go into even a summary of the development of rate fixing before the commissions.¹⁵ It is sufficient for our purposes to say that no uniform theory of rate making has been adopted.¹⁶ Although there has been a great deal of talk about the "cost of service" theory of rate fixing, there never has been a successful attempt to apply it,¹⁷ because, as we shall see, no scientific or effective method of determining valuation has yet been devised.

In actual practice, rates of local public utilities are still made occasionally by the company itself, by charters or other agreements between the company and representatives of municipal corporations or governmental units, by local city ordinances or by statute. But rate fixing involving action by some type of state public service commission rapidly is becoming the normal practice. The statutes and procedures differ as to the means by which the commission obtains jurisdiction to pass upon rates. In some cases the company may initiate the change by submitting a new rate schedule, in others a private citizen or public official may raise the question, and sometimes the commission starts the action on its own motion. These different means may be optional or prescribed by law; but eventually the commission hears the case on its merits and fixes a rate.

Appeal to the state courts from the findings of the commission on the reasonableness or legality of the rates so fixed may usually be had by any of the parties. The forms of these actions are of little importance for our purposes except that they are similar to suits in equity and involve some form of setting the rate aside or enjoining the commission from enforcing it.

However, the procedure by which these cases get into the federal courts is of extreme importance to the subject at hand.

¹⁴This power has existed in some states since 1885, and a general extension to local utilities began shortly after 1900. See Glaeser, *Outlines of Public Utility Economics* 223-235.

¹⁵For such a history of this development see Glaeser, *Outlines of Public Utility Economics*, ch. XI, XIV and XV.

¹⁶For a discussion of the various methods of fixing rates see Whitten & Wilcox, and Glaeser, *Outlines of Public Utility Economics* and also Bauer, *Effective Regulation of Public Utilities*.

¹⁷See Bauer, *Effective Regulation of Public Utilities* 43 ff, and Glaeser, *Outlines of Public Utility Economics*, ch. XXVII.

With the exception of suits involving diversity of citizenship, which are too rare to be of any importance, there are only two ways by which these cases get into the federal courts¹⁸ by writ of error from the supreme court of the state in which the utility is located,¹⁹ or by an original suit brought in the lower federal courts to enjoin directly the enforcement of the rate.²⁰ In both forms of procedure the question of law is the same. It arises under the fourteenth amendment to the constitution, *i.e.*, is the return to the company on the rate so fixed so low as to constitute taking of its property without due process of law?

It is fundamental to an understanding of these cases to note that the federal courts are not fixing the rates to be charged.²¹ Neither are they passing upon the question of whether or not the commission followed the proper procedure or used prescribed methods in fixing the rates.²² The sole question of law is does

¹⁸We are dealing here only with cases involving rates of local public utilities coming up under state laws. Those under the Interstate Commerce Act and the local statutes for the District of Columbia are not considered except where similar questions are raised.

¹⁹For examples of this sort of case see *Bluefields Water Works Co. v. Public Service Commission*, (1922) 262 U. S. 679, 43 Sup. Ct. 675, 67 L. Ed. 1176; *Ohio Utilities Co. v. Public Utilities Commission of Ohio*, (1924) 267 U. S. 359, 45 Sup. Ct. 259, 69 L. Ed. 656; *Southwestern Bell Tel. Co. v. Public Service Commission*, (1922) 262 U. S. 276, 43 Sup. Ct. 544, 67 L. Ed. 981.

²⁰For examples of this procedure see *Georgia Ry and Power Co. v. Railway Commission of Georgia*, (1922) 262 U. S. 625, 43 Sup. Ct. 680, 67 L. Ed. 1144, *Minnesota Rate Case*, (1912) 230 U. S. 352, 33 Sup. Ct. 729, 57 L. Ed. 1511 *Galveston Electric Co. v. Galveston*, (1921) 258 U. S. 388, 42 Sup. Ct. 351, 66 L. Ed. 678, *Pacific Gas and Electric Co. v. San Francisco*, (1923) 265 U. S. 403, 44 Sup. Ct. 537, 68 L. Ed. 1075, *McCardle v. Indianapolis Water Co.*, (1926) 272 U. S. 400, 47 Sup. Ct. 144, 71 L. Ed. 316; and the *Consolidated Gas Co.* Cases cited in note 87 below.

²¹*Honolulu v. Hawaii*, (1908) 211 U. S. 282, 29 Sup. Ct. 55, 53 L. Ed. 186; *Newton v. Consolidated Gas Co.*, (1921) 258 U. S. 165, 177 42 Sup. Ct. 264, 66 L. Ed. 538, *Keller v. Potomac Electric Power Co.*, (1922) 261 U. S. 428, 43 Sup. Ct. 445, 67 L. Ed. 731.

²²The procedure before the commission is governed by state statute, and cannot be a federal question except in so far as it raises the question of arbitrary action under the constitutional requirements of due process of law. The Supreme Court has even gone so far as to refuse to tamper with methods used by the Interstate Commerce Commission. *St. Louis Southwestern Ry. Co. v. Interstate Commerce Commission*, (1923) 264 U. S. 64, 44 Sup. Ct. 294, 68 L. Ed. 565; *Delaware & Hudson Co. v. United States*, (1924) 266 U. S. 438, 45 Sup. Ct. 153, 69 L. Ed. 369; *United States v. Interstate Commission (C.A. D.C. 1925)* 6 F (2d) 692, certiorari denied, (1925) 269 U. S. 570, 46 Sup. Ct. 26, 70 L. Ed. 417 *New York, O. & W Ry v. United States*, (D.C. N.Y. 1926) 14 F (2d) 850, affirmed without opinion, (1927) 273 U. S. 652, 47 Sup. Ct. 334, 71 L. Ed. 823; *United States v. Los Angeles & Salt Lake R. R.*, (1927) 273 U. S. 299, 47 Sup. Ct. 431, 71 L. Ed. 446.

this rate as fixed by the commission yield a financial return which is so unreasonably low as to constitute confiscation? This constitutional measure of confiscation is too well settled to admit of any question of doubt. Stated in the language of the courts the law is this, "There must be a fair return upon the reasonable value of the property" being used for the public.²³

III MEANING OF "RETURN" AND "VALUE OF PROPERTY"

It is apparent that this rule requires an explanation of the meaning of the expressions "return" and "value of the property"

Let us examine first the meaning of "return." Although considerable confusion is introduced into the whole subject due to the fact that lawyers, economists, accountants and engineers do not have a uniform meaning for the same terms used in discussing valuation, it is clear that "rate of return" must be distinguished from "rates" fixed by the commission. The rates are the price which the consumer pays for a unit of service, while the return is the residue left to the company after the cost of production is subtracted from the gross proceeds of the sale of the service to all customers. Thus it is possible that a decrease in rates might yield an increased return, or an increase in rates might yield a smaller return, due to changes in volume of consumption resulting from changes in price. But in any event, the return is a matter of fact which must be determined by accounting and economics, and not by any artificial rules of law.²⁴

Omitting accounting technicalities and overlooking innumerable minor problems of economics and finance, the return may be said to be made up of the following factors

²³"There must be a fair return upon the reasonable value of the property at the time it is being used for the public the value of the property is to be determined as of the time when the inquiry is made regarding rates." *Missouri ex rel. S. W. Bell Tel. Co. v. Public Service Commission*, (1922) 262 U. S. 276, 287 43 Sup. Ct. 544, 67 L. Ed. 981. See also *Wilcox v. Consolidated Co.*, (1908) 212 U. S. 19, 41, 52, 29 Sup. Ct. 192, 53 L. Ed. 382; *San Diego Land and Town Co. v. National City*, (1899) 174 U. S. 739, 757 19 Sup. Ct. 804, 43 L. Ed. 1154; *Minnesota Rate Case*, (1912) 230 U. S. 352, 454, 33 Sup. Ct. 729, 57 L. Ed. 1511, *Denver v. Denver Union Water Co.*, (1917) 246 U. S. 178, 191, 38 Sup. Ct. 278, 62 L. Ed. 649; *Newton v. Consolidated Gas Co.*, (1921) 258 U. S. 165, 42 Sup. Ct. 264, 66 L. Ed. 538; *Galveston Electric Co. v. Galveston*, (1921) 259 U. S. 388, 42 Sup. Ct. 351, 66 L. Ed. 678; *Bluefields Co. v. Public Service Commission*, (1922) 262 U. S. 679, 690, 43 Sup. Ct. 675, 67 L. Ed. 1176, and *Georgia Ry. and Power Co. v. Railroad Commission*, (1922) 262 U. S. 625, 631, 43 Sup. Ct. 680, 67 L. E. 1144.

²⁴For the cases on the points and discussions of the law involved see notes, L. R. A. 1915A 5; and 52 L. R. A. (N.S.) 15.

- (1) Gross income from all services
- Less
 - (2) Total operating expenses
 - (3) Total overhead costs including
 - (a) Interest on borrowed capital
 - (b) Executive supervision, etc.
 - (4) Proper allowances for depreciation
- Remainder
 - (5) Return

The determination of items (1), (2) and (3) would appear to be a simple problem of accounting and to offer little difficulty. If the rates have been in effect for some time before the litigation is started, the question is simply one of weighing and evaluating amounts to be subtracted from a known gross income. But if the rates in question have never been collected, the tribunal is faced with the task of projecting the effect upon the market of the change in rates, with its resulting increase or decrease of operating expenses, overhead costs and gross income, which in turn reflects an increased or decreased return. Thus the cases involving the constitutionality of a new rate enter at once into a fog of speculation and expert opinion, upon even the most elemental phases of the problem, which no court passing upon the facts can ever hope to escape.²⁵

Regardless of whether the rate is established or new, the problem of determining item (4), proper deduction from the income as *allowance* for depreciation, is a difficult one. It involves estimating a future wear and tear on machinery and losses due to unforeseeable obsolescence. At least five approved methods of determining this one item to be subtracted from gross income to establish return have been evolved.²⁶ No two of the systems

²⁵In practice the courts often overlook the necessity of making this adjustment, and erroneously project the new return on the basis of the old volume of business. This of course never corresponds to the actual facts. For an example of this sort of calculation see *Consolidated Gas Co. v. City of New York*, (C.C.N.Y. 1907) 157 Fed. 849, 869.

²⁶"Several different methods are used for measuring depreciation: (1) The replacement method; (2) The straight-line method; (3) The compound interest method; (4) The sinking fund method; (5) The unit cost method. It is largely a matter of judgment whether, and to what extent, any one of these several methods of depreciation should be applied. They may give widely different results. Special Report, October 28, 1916, Valuation of Public Utilities, American Society of Civil Engineers, Vol. 42 Proceedings, pp. 1723-1727 1846-1900." Note, Mr. Justice Brandeis' concurring opinion, *Missouri ex rel. Southwestern Bell Tel. Co. v. Public Service Commission*, (1922) 262 U. S. 276, 294, 43 Sup. Ct. 544, 67 L. Ed. 981.

can be reconciled in theory or result. Each has its particular purpose, and economists and engineers will differ widely in choosing the rule to be applied to any particular case. So it is not surprising that whenever law courts have been faced with the task of determining this amount, they have either dodged the issue or floundered hopelessly in a mire of conflicting expert opinion.²⁷

After the tribunal has determined this comparatively elementary fact of return, the second and more difficult problem of determining value still remains. The rule of law requires a "fair return upon the *reasonable value of the property.*"

Disregarding for the moment the question of fairness of the return,²⁸ let us see how the value of the property is to be determined. Here again the law is clear. "The value of the property is to be determined as of the time when the inquiry is made regarding rates."²⁹ Once more we are faced with a mere question of fact; but the determination of that fact is one of the knottiest problems that has commanded the attention of modern courts. Value for any purpose is one of the most disputed theories of the economists, and even writers of elementary texts disagree as to the meaning and application of the term to the simplest of problems.³⁰ It is no wonder, then, that there is difficulty in determining the value of so complicated a unit as a public utility.³¹

The property included in such a valuation of a complete operating concern has been classified as follows³²

²⁷For cases dealing with depreciation see notes, 38 L. R. A. (N.S.) 1209; L. R. A. 1916F 761. For judicial differences on the subject see *Pacific Gas Co. v. San Francisco*, (1923) 265 U. S. 403, 406, 424, 44 Sup. Ct. 537, 68 L. Ed. 1075, where the master, Mr. Justice McReynolds and Mr. Justice Brandeis all disagreed as to the proper method of charging depreciation.

²⁸For a discussion of the economic question involved in fairness of return see Glaeser, *Outlines of Public Utility Economics*, ch. XIX, Nash, *Economics of Public Utilities*, ch. IX.

²⁹See cases cited in note 23 above.

³⁰For examples of this divergence of opinion among economists see: Davenport, *Economics of Enterprise* 24; Taussig, *Principles of Economics* 11 ff; Fairchild, *Elementary Economics* 22; Garver, *Elementary Economics* 197, summary there given.

³¹As early as 1920 it was pointed out that "fair value" was a "myth" to conceal a process of arbitrary decisions based upon considerations of policy. Henderson, *Railway Valuation and the Courts*, 33 *Harv. Law Rev.* 902 and 1031, 1055.

³²Note to Mr. Justice Brandeis' opinion in *Southwestern Bell Case*, (1922) 262 U. S. 276, 293, 43 Sup. Ct. 544, 67 L. Ed. 981, citing Report of Special Committee on Valuation, American Society of Civil Engineers, October 28, 1916, 42 *Proceedings*, pp. 1708-1938.

- A. Tangibles
 - 1. Land and Buildings
 - 2. Plant
- B. Incidentals during construction
 - 1. Administration
 - 2. Engineering and superintendence
 - 3. Legal expense
 - 4. Brokerage
 - 5. Promotion fees
 - 6. Insurance
 - 7. Taxes
 - 8. Bond discount
 - 9. Contingencies
- C. Intangibles
 - 1. Good will
 - 2. Franchise value
 - 3. Going concern value
 - 4. Working capital.

IV THEORIES OF VALUATION

It would be impossible to discuss here in detail all of the various theories and methods which have been advanced to determine the present value of these items for "rate making purposes."³³ But to illustrate the complicated nature of the problem, it will be useful to examine briefly the question of the valuation of the tangible property (item A above). A few of the independent and irreconcilable theories which have been offered in evidence as a measure of the present value of this property all of which have received judicial approval, are set out below

1. The market price³⁴ of the property either (a) as a going concern or (b) as scrap, i.e., its sales price for other uses. This

³³Value for other purposes is not even considered here; but it is not at all unusual in practice to find a utility with different values for different purposes such as taxation, capitalization, incorporation and stock sales, bond issues, etc. For an example of this needless compounding of valuations see Whitten & Wilcox, *Valuation of Public Service Corporation* ch. IV Bonbright, *Problem of Judicial Valuation*, 27 Col. L. Rev. 493.

³⁴For an example of the use of market price as a measure of valuation see Mr. Hagenah's testimony on canal value in *Indianapolis Water Case* in lower court 272 U. S. Record 90, and Mr. Carter's, *id.* 131 market value of lands outside terminals, *Minnesota Rate Case*, (1912) 230 U. S. 352, 445-456, 38 Sup. Ct. 729, 57 L. Ed. 1511 and for the use of this method to value land in general see note, 48 L. R. A. (N.S.) 1196.

is a common measurement of value, but proves useless here because large plants seldom have a market value as an operating unit, and are almost always worth more than their scrap value.

2. Capitalized earning power as evidenced by market value of stocks and securities. Although this is a useful measure of value for some purposes, it is entirely inadequate for testing rates, because earning power is largely determined by the rate to be set, and thus we have a vicious circle, *i.e.*, test the rate by a capitalization of the return from the rate to be tested. Operating on this theory, any rate which reduced the opportunity of the company to get its present net return would be confiscatory. Therefore under this theory rates could be revised only to yield the present, or a higher return. This theory, however, has crept into a number of cases by the backhand method of evaluating intangibles such as franchises, patents, good will, going concern value, future earning power, etc.³⁵

3. Original or historic cost of the property, sometimes, in a slightly modified form, called the "prudent investment" theory.³⁶ In many cases this theory offers a very satisfactory solution but is

³⁵This measure of valuation was first introduced into the cases by *Smyth v. Ames*, (1897) 169 U. S. 466-547, 18 Sup. Ct. 418, 42 L. Ed. 819, and has received at least lip service in almost every case decided since that time. Some of the most vicious examples of this type of reasoning are found in the following: Water rights and going concern value a pure capitalization of earning power, *Indianapolis Water Case*, 272 U. S. record, 199-210, capitalized at \$2,598,000 and approved by majority opinion, (1926) 272 U. S. 400, 413, 415, 47 Sup. Ct. 144, 71 L. Ed. 316; contra and better view, *United Fuel Gas Co. v. Railroad Commission of Kentucky*, (D.C. Ky. 1925) 13 F. (2d) 510, affirmed Jan. 2, 1929, 3 U. S. Daily 2687, 49 Sup. Ct. 150, where court refused to allow such circuitous reasoning in setting values of gas fields and going concern, see also *Des Moines Gas Co. v. Des Moines*, (1915) 238 U. S. 153, 164 ff., 35 Sup. Ct. 811, 59 L. Ed. 1244; successful use of patents capitalized, *Pacific Gas Co. v. San Francisco*, (1923) 265 U. S. 403, 407 44 Sup. Ct. 527 68 L. Ed. 1075. For early cases dealing with good will see 48 L. R. A. (N.S.) 1146, note; franchise and good will of a \$60,000,000 plant set at \$20,000,000, *Consolidated Gas Co. v. New York*, (C.C.N.Y. 1907) 157 Fed. 849, 854, later cut to \$7,781,000 in *Wilcox v. Consolidated Gas Co.*, (1908) 212 U. S. 19, 44-48, 29 Sup. Ct. 192, 53 L. Ed. 382; and for a collection of cases showing various views on this point see Whitten & Wilcox, *Valuation of Public Service Corporations*, ch. XXV

³⁶Mr. Justice Brandeis is the leading advocate of the prudent investment theory which is fully set forth in his dissenting opinions in the *Southwestern Bell Case*, (1922) 262 U. S. 276, 289, 43 Sup. Ct. 544, 67 L. Ed. 981, the *Pacific Gas Co. Case*, (1923) 265 U. S. 403, 416, 44 Sup. Ct. 537 68 L. Ed. 1075, and the *Indianapolis Water Case*, (1926) 272 U. S. 400, 421, 47 Sup. Ct. 144, 71 L. Ed. 316; and for a further discussion of this theory see Richberg, 31 *Yale L. J.* 263, 266, 279; Hale, 30 *Yale L. J.* 710, 720; Henderson, 33 *Harv. L. Rev.* 902, 1031 36 *Quart. J. of Econ.* 197, 211.

very hard on recent investors who have bought stocks or bonds depending upon capital appreciation, and becomes almost useless where the company has gone through a series of receiverships or financial reorganizations.³⁷

4. Cost of reproducing the physical plant.³⁸ This cost may be at almost any date or price level. As we shall see, it has proved worse than useless because it offers no permanent solution of any problem, and leads to the most absurd speculations and unnatural costs.³⁹

5. Cost of the next best substitute for the present plant. This theory often proves useful in determining the value of partly obsolescent property, but if logically followed, it leads to absurd conclusions.⁴⁰

6. The cost of reproducing (a) the identical service, (b) its next best substitute, sometimes called the competitive theory of valuation. This theory is very closely connected with the next

³⁷For an approval of historical cost see *Smyth v. Ames*, (1891) 169 U. S. 466, 547, 18 Sup. Ct. 418, 42 L. Ed. 819; *Galveston Electric Co. v. Galveston*, (1921) 258 U. S. 388, 391, 42 Sup. Ct. 351, 66 L. Ed. 678, and opinions cited supra. This theory was disapproved directly or by inference in all cases adopting the reproduction theory, cited *infra*.

³⁸This theory at present dominates the lower courts and some of the commissions. See the cases cited in note 95 below.

³⁹Some of the absurdities of this theory will appear from the following examples: Claims for extra cost of "reproducing" mains laid long ago but now in thickly populated districts, *Indianapolis Water Case*, 272, U. S. record, 83; replacing paving over mains laid before the paving existed, *Kings County Lighting Case*, (D.C. N.Y. 1925) 7 F (2d) 192, 201 *Des Moines Gas Case*, (1915) 238 U. S. 153, 171, 35 Sup. Ct. 811, 59 L. Ed. 1244, *Pacific Gas Co. Case*, (D.C. Calif. 1921), 273 Fed. 937 and see also summary of subject in *Whitten & Wilcox*, *Valuation of Public Service Corporations*, ch. XVIII, charges for theoretical cost of preliminary organization expenses and overhead items for reconstruction of plant when in fact none actually existed in original construction approved, *Ohio Utilities Co. Case* (1924), 267 U. S. 359, 361-363, 45 Sup. Ct. 259 69 L. Ed. 634 insisting upon the use of reproduction cost to evaluate obsolete property such value reaching \$1,396,170.54, although the original cost was less than \$200,000 and the next best substitute would cost only \$267,306, the court ruled out the evidence of the cost of the substitute, *Indianapolis Water Co. Case*, 272 U. S. record, pp. 159, 335, 214, and this was approved by the Supreme Court, (1926) 272 U. S. 400, 417-418, 47 Sup. Ct. 144, 71 L. Ed. 316.

⁴⁰This theory is approved and disapproved in the same passage by the Supreme Court in the *Indianapolis Water Case* in the citation in note 39 above; approved where the next best substitute would cost more, replacing the canal; and disapproved where it would cost less, replacing the pumping station. For an absurd use of this theory see the *Worcester Electric Light Rate Case*, (June 3, 1927) Mass. D. P. U. 2609 and 2694, Order 9472, record 403-416, 864, 865, where a pond costing less than \$100,000 became worth \$1,200,000 when valued on this theory see also *Brooklyn Union Gas Co. Case*, (D.C. N.Y. 1925) 7 F (2d) 628, 649, where this theory is disapproved.

best substitute theory mentioned above except that the emphasis is on the service rather than the plant. It is useful in setting rates, but has little bearing on the question of confiscation of property except where dealing with a partly obsolete plant.⁴¹

The results obtained by any one of these theories may or not have to be corrected by allowing for depreciation. Whether or not such corrections are allowed will depend upon the past policy of the company in charging depreciation as part of the rates,⁴² and upon the particular type of valuation theory adopted. The item of depreciation itself looms so large in valuation, and this problem alone is so complex, that the authorities on the subject are in hopeless disagreement.⁴³

V FEDERAL PRACTICE IN DEALING WITH VALUATION OF LOCAL UTILITIES

The problem of evaluating the physical property is reproduced in each of the incidentals and intangibles, the theories becoming more vague and the arguments hotter as the property to be considered varies from tangible to intangible. Thus we find the writers on valuation wandering in disorder with their heads in a fog of undeveloped economic theory and their feet in a quagmire of clashing financial interests. An examination of the results achieved by litigation will show that the courts are no nearer than the writers to a solution of the problem.

Although the constitutionality of a rate may be questioned on its facts by appeal to the state courts,⁴⁴ the usual and more approved method is to raise the question by enjoining the com-

⁴¹The so-called economic value of the canal in Indianapolis Water Case, mentioned in (1926) 272 U. S. 400, 417, 47 Sup. Ct. 144, 71 L. Ed. 316, and in the Commission order No. 6613 there cited, 272 U. S. record 209, 210, 231, is an example of this theory: see also San Diego Land Co. v. National City, (1899) 174 U. S. 739, 757, 19 Sup. Ct. 804, 43 L. Ed. 1154.

⁴²Different results will be obtained upon the use of the theories set out in note 26 above.

⁴³For examples of this disagreement among jurists see note 27 above. For further discussion of the subject see Whitten & Wilcox, Valuation of Public Service Corporation, ch. XXXII, Glaeser, Outline of Public Utility Economics, ch. XV Dewing, Financial Policy of Corporations (1926) 469. Bonbright, Depreciation and Valuation for Rate Control, 27 Col. L. Rev. 113, and numerous articles there cited.

⁴⁴Ohio Valley Water Co. v. Ben Avon Borough, (1919) 253 U. S. 287 40 Sup. Ct. 527 64 L. Ed. 908; see also Buchanan, The Ohio Valley Water Company Case and the Valuation of Railroads, 40 Harv. L. Rev. 1033, and cases cited in Appendix, 1070 ff.

mission or other regulatory officers from enforcing the rates.⁴⁵ In this proceeding, after the commission has fixed a rate, the company asks for a temporary injunction till the court can determine whether in fact the rate violates the company's rights under the fourteenth amendment. As we have already seen, the facts are so involved and complicated that the court itself cannot take time to investigate them in detail, so after a hearing before three judges the case is turned over to a master. Although the commission has usually given the whole subject a full hearing and considered all the facts bearing upon the valuation, the master begins the case de novo. "Judicial process" demands that facts be found upon evidence, so the master⁴⁶ calls in the evidence, which always consists of volumes of books, papers, charts, and a long list of expert witnesses who testify as to their opinion of the value of the property⁴⁷ After a protracted hearing the master reports his results to the lower court, together with a record of the "relevant" parts of the evidence, which usually runs into volumes of printed matter.

The court then renders an "independent opinion on the facts," determining whether the rate will yield a fair return on the "value" which it finds in the opinion. As we have seen such a decision rests purely on opinion. One great jurist⁴⁸ has described the process as follows

"The decision involves ordinarily the making of four subsidiary ones

⁴⁵See Mr. Justice Brandeis' dissenting opinion in the Ohio Valley Water Case, (1919) 253 U. S. 287-294, 40 Sup. Ct. 527-646 L. Ed. 908, and cases there cited. For examples of this type of procedure see cases cited in notes 99 to 110 below.

⁴⁶The master in these cases is chosen by the court with the consent of both parties. Thus he is always a neutral party and this neutrality almost always requires a lack of experience with valuation cases. So we find the task of finding the facts placed in the hands of a lawyer who is poorly equipped to deal with the economic and engineering technicalities which are certain to arise in the hearing. The result is an initial confusion of the entire matter, which is augmented as the judicial process grinds on. In European practice, the master in such a case would be an expert engineer or economist; see Englemann, *History of Continental Civil Procedure*, 7 *Continental Legal History Series*, 361, 557-558, 563, 719, 762, 789.

⁴⁷Expert witnesses and capable counsel are very expensive. One eastern public service corporation (name withheld by request) reports that the engineering cost alone of evaluating a \$230,000,000 plant was \$1,800,000.

⁴⁸Mr. Justice Brandeis' concurring opinion in the Southwestern Bell Telephone Case, (1922) 262 U. S. 276, 291, 43 Sup. Ct. 544, 67 L. Ed. 981.

1. What the gross earnings from operating the utility under the rate in controversy would be. (A prediction.)

2. What the operating expenses and charges, while so operating would be. (A prediction.)

3. The rate-base, that is, what the amount is on which a return should be earned. (Under *Smyth v. Ames*, an opinion, largely.)

4. What rate of return should be deemed fair. (An opinion, largely.)

A decision that a rate is confiscatory (or compensatory) is thus a result of four subsidiary determinations. Each of the four involves forming a judgment, as distinguished from ascertaining facts. And as to each factor, there is usually room for difference in judgment."

After the lower court has rendered its judgment, the case then goes up with its now highly augmented record, and voluminous briefs of counsel speculating upon the plausibility of the expert testimony and the manner in which the commission, the master and the lower court reached their respective decisions.⁴⁹ The Supreme Court then repeats the process of the lower court, rendering its opinion upon the opinion of the commission, the experts, the master and the lower court as to the adequacy of the valuation and incidentally upon the question of "fair rate of return."

VI RESULTS ACHIEVED IN INDIANAPOLIS WATER CASE

The insuperable difficulties which the courts face in attempting thus to determine a fact of valuation are illustrated by the record of the *Indianapolis Water Co. Case*.⁵⁰ This company is a comparatively small corporation capitalized at about \$5,500,000, with an authorized bond issue of \$10,522,000.⁵¹ It serves 82,291 customers in a population of 397,000 people in the city of Indianapolis, Indiana. The total valuation of all its property approximates something well under twenty-five million dollars.⁵² Yet its history contains a series of reorganizations.⁵³ And its

⁴⁹Any record of a valuation case will disclose a large amount of space taken up with briefs. A few examples of the total space devoted to briefs alone follow: Consolidated Gas Co. Case, 212 U. S., 1054 pages; Consolidated Gas Co. Case, 258 U. S., 1459 pages; Consolidated Gas Co. Case, 272 U. S., 602 pages; Brooklyn Union Gas Co. Case, 272 U. S., 322 pages; Southwestern Bell Case, 262 U. S., 195 pages; Indianapolis Water Co. Case, 272 U. S., 274 pages; Los Angeles & Salt Lake R. R. Case, 273 U. S., 614 pages.

⁵⁰(1926) 272 U. S. 400, 47 Sup. Ct. 144, 71 L. Ed. 316.

⁵¹These figures include \$4,500,000 of stock dividends and \$3,000,000 of bond dividends; see 272 U. S. record, p. 149.

⁵²See opinion of lower court, 272 U. S. record, 63.

⁵³See 272 U. S. record, 209.

present corporate structure is complicated by the existence of an operating, and one or more holding companies,⁵⁴ which are so common in the field of public utility financing.⁵⁵

The case in question arose in the usual manner upon a bill in equity filed by the water company in December, 1923, in the United States district court, to enjoin the enforcement of new water rates set by the Public Service Commission of Indiana. The proceedings to fix these rates had begun six months earlier, and the commission, after extensive hearings participated in by the company, the city, and civic bodies, had fixed the rate in question.⁵⁶ The new rates, representing an increase over the ones then in force, were determined on the basis of a complete new evaluation calculated upon all the evidence that later came before the court.

The company was comparatively small. The court, dispensing with the services of a master, heard the evidence itself. The commission, the lower court, and the majority of the Supreme Court, were agreed that the theory of reproduction was to be taken as the determining factor of value,⁵⁷ and that 7 per cent was a reasonable rate of return on the value so determined.⁵⁸ Within seven months of the beginning of these proceedings before the commission, the company and commission, after a complete investigation by the commission's engineers, had agreed upon a valuation of the entire property involved, for bond issue purposes. This result supported in detail the valuation for rate making purposes later made by the commission and questioned in this suit.⁵⁹ All

⁵⁴For these, and further details of financial structure see Moody's *Manual of Investments, Public Utilities* (1927) 271-272.

⁵⁵For the extent to which the electric power industry is being consolidated and becoming an interstate rather than a local problem see Federal Trade Commission's Report on Electric Power Industry Senate Document No. 213, (1927) U. S. Daily 228, 229, 4374.

⁵⁶See the company's Bill of Complaint, Record, p. 1-8.

⁵⁷See commission's opinion, 272 U. S. record, p. 25-28, District Judge Geiger's opinion and explanatory letters, 272 U. S. record, p. 57-60; majority opinion of Supreme Court, (1926) 272 U. S. 400, 408 ff., 47 Sup. Ct. 144, 71 L. Ed. 316; but see Mr. Justice Brandeis' dissenting opinion, *id.* 421 ff.

⁵⁸See *id.* record, p. 9, District Judge Geiger's opinion, *id.* record, pp. 57-64 Supreme Court, majority opinion, (1926) 272 U. S. 400, 420, 47 Sup. Ct. 144, 71 L. Ed. 316; but see Mr. Justice Brandeis' dissenting opinion at page 425.

⁵⁹The earlier valuation for bond issue purposes was \$16,455,000 (Record, 242), while the valuation questioned in this suit was \$15,264,000. There is an apparent discrepancy of \$1,191,000 between the two findings which causes the court (Record, 61-63) to hold the second clearly unreasonable. But this difference is clearly explained in both the earlier findings of the commission (Record, 238) and the

these facts tended to simplify the case. There was no necessity of projecting return or calculating fictitious costs of production. The only point at issue was the value of the property on the reproduction theory. Thus we have here an example of a valuation case reduced to its simplest possible element, the determination of the pure fact of value by agreed methods.

If ever the judicial solution of the rate making problem is to succeed, this case offered the opportunity. Yet what were the practical results obtained?

An examination of the record⁶⁰ and opinions discloses that over forty different estimates of the total value of the property were offered in evidence before the commission and the courts. These estimates ranged from \$8,612,399, the actual cost of the property shown by the company's books, to \$25,404,026, the value claimed by Mr. Hagenah, an expert witness for the company. On the basis of this testimony the commission split. In a three to two decision the majority⁶¹ set the value as not less than \$15,260,400, while the minority⁶² put it at \$12,000,000. The company, although it claimed as high as \$25,000,000, offered in court to accept \$19,000,000 as a minimum. The lower court, after floundering hopelessly in the mass of "evidence" accepted the company's figures as a minimum and enjoined enforcement of the rate because it would yield less than five per cent return on that figure.⁶³ On appeal the United States Supreme Court, with Mr. Justice Brandeis and Mr. Justice Stone vigorously dissenting, talked about items to be considered, reproduction at spot prices as the determining factor, and various theories of intangible valuation. Then it took the bit in its teeth and set the valuation at not less than the company's price, \$19,000,000.

The proceedings in this, the simplest of cases as rate fixing cases go, started on June 8, 1923, and three years and five months later, on November 22, 1926, the Supreme Court finally reversed the commission. The investigation to compile the evidence and

later opinion (Record, 17, 23, and 25) by the fact that the first valuation for bond issue purposes contained over a million dollars' worth of real estate and canal land owned by the company not used or useful in public service, which was properly left out of consideration in fixing value for rate making purposes.

⁶⁰See 272 U. S. record, 24, 25, 74, 91, 149, 353, 362.

⁶¹Commissioners Ratts, McCardle and Douglas, opinion, 272 U. S. record, pp. 10-34, 29.

⁶²Commissioners Wampler and Artman, opinion, 272 U. S. record, 345-367 366.

⁶³See lower court's decision, 272 U. S. record, 64.

the hearing of the testimony in the various tribunals consumed over a year's effort by a combined staff of experts employed by the commission and the company. The briefs and record, in greatly abbreviated form, in the Supreme Court alone had reached a total of about 700 pages which fill a bound volume approximately three inches thick, when the court, to avoid further delay, fixed the valuation.

What has been the result of all this effort? It must be admitted that valuation at its best is a complicated problem, and considerable effort is necessary to solve the difficulties involved therein. But as a practical matter, has this case aided materially in setting the conflict of interests in Indianapolis or brought any closer the final determination of a water rate? The opinion of the majority, which must be taken to be the result of the cases, gives a striking answer to these questions. One tangible result at least is achieved, quoting Mr. Justice Butler, "On consideration of the evidence, it is held that the value of the property *as of January 1, 1924* and immediately following was not less than \$19,000,000."⁶⁴ But how does the court reach the result? The opinion also gives the approved formula. It tells us that present value is present value and is to be found as follows

"If the tendency of prices is not definitely upward or downward and it does not appear probable that there will be a substantial change of prices, then the present value of the lands (sales price for next best use) plus *the present cost of constructing the plant*, less depreciation, if any is a fair measure of value of the physical elements of the property. The validity of the rates in question depends upon the value *January 1, 1924*, and for a reasonable time following."⁶⁵

Thus it is clear that the Supreme Court approved of the methods used by the lower court of reconstructing the plant in its present condition at spot prices. It also agreed with the lower court in disapproving the commission's use of average prices prevailing over a ten-year period up till two years before the present suit. It also disapproved by inference the use of prices or value prevailing two years before the investigation.

Now suppose the commission on the day the Supreme Court handed down that decision had fixed rates calculated to yield 7

⁶⁴Last sentence of the opinion, (1926) 272 U. S. 400, 421, 47 Sup. Ct. 144, 71 L. Ed. 316. The italics are the author's.

⁶⁵McCardle v. Indianapolis Water Co., (1926) 272 U. S. 400, 411, 47 Sup. Ct. 144, 71 L. Ed. 316. The parentheses and italics are the author's. It is interesting to note that the inquiry began six months before the date of the final valuation.

per cent on \$19,000,000, would the rate stand without a redetermination of the value of the plant? The plain answer on the theory of the case must be, *No!* The valuation is fixed as of January, 1924. The rate necessarily must be fixed as of November, 1926.⁶⁶ The company, if it desired, could question the rates immediately, and the inquiry would have to take place in 1927. The words of the court clearly demand this

"It must be determined whether the rates complained of are yielding and will yield a reasonable rate of return *on the value of the property at the time of the investigation and for a reasonable time in the immediate future.*"⁶⁷

The only "fact" of value conclusively established is "spot" value as of 1924, but the spot has moved while the judicial process ground on. The system approved in this case demands a new determination of value, so the commission, courts, and experts must get together once more and construct a new theoretical plant on the "spot" prices of 1927. The very magnitude of the task will again cause the result to be useless. Thus, on the theory of this case, no rate can ever be set which will bind the company.

But surely this cannot be the actual result. After all, courts and commissions are practical people, surely the cases do not work out this way in real life. Let us examine other cases where a similar theory was followed, in an attempt to set rates over a period of years.

VII FAILURE OF THE GAS RATE VALUATIONS FOR NEW YORK CITY

The history of the legislative, administrative and judicial attempts to establish a gas rate for the companies serving greater New York City illustrates that the objections to the theory of the *Indianapolis Water Case* are very practical.

This controversy, in so far as it affects our present problem, began in 1905, when the legislature appointed a committee to investigate the rates charged by the gas companies serving the metropolis. After the usual hearings, the committee reported,⁶⁸ among other facts, that the present metropolitan district was served

⁶⁶Retroactive rates would be clearly illegal, *Newton v. Consolidated Gas Co.*, (1921) 258 U. S. 165, 177 42 Sup. Ct. 264, 66 L. Ed. 538.

⁶⁷(1926) 272 U. S. 400, 409, 47 Sup. Ct. 144, 71 L. Ed. 316. Italics are author's. (Ed.)

⁶⁸Report of the Joint Committee of the Senate and Assembly of the State of New York, April 29, 1905, *Wilcox v. Consolidated Gas Co.*, 212 U. S. record, pp. 66-135.

by the following companies The Consolidated Gas Company, with its seven subsidiary companies,⁶⁹ The Bronx Gas and Electric Company, and The Brooklyn Union Gas Company, with its five subsidiary companies.⁷⁰ The report contained complete figures as to valuation of the properties and recommended that the rates, then approximately one dollar per unit, be reduced to seventy-five cents.⁷¹ The legislature, acting upon this recommendation, limited the price of gas sold to the city to seventy-five cents,⁷² and empowered the commission to set the rates to private consumers at eighty cents.⁷³ The commission accordingly set this rate in February 1906, and the companies immediately appealed to the courts. The cases dealing with the problem as it affected the Consolidated Gas Company are sufficient illustration of the trend to the entire litigation in the federal courts

On February 22, 1906, the company applied to the United States circuit court for the southern district of New York, and later obtained, a preliminary injunction against the enforcement of the new rates, impounding the difference between eighty cents and one dollar till final disposition of the case.⁷⁴ After a master had heard evidence for a year, he submitted a five-volume report evaluating the property at \$83,357,000, and holding the rates confiscatory. The court cut the value to \$59,000,000, but made the injunction permanent.⁷⁵ After appeal the United States Supreme Court, on January 4, 1909, reversed the lower court because the company had "failed to sustain the burden cast upon it of showing beyond any just and fair doubt that the acts of the legislature of the state of New York were in fact confiscatory"⁷⁶ The excess of rates collected in the interim were to be returned to

⁶⁹The New York Mutual Gas Light Company, The Standard Gas Light Company, New Amsterdam Gas Company, East River Gas Company of Long Island City Central Union Gas Company, Northern Union Gas Company and Westchester Lighting Company, see report supra, note 68 page 67-117

⁷⁰The Woodhaven Gas Light Company, The Flatbush Gas Company, The Newton Gas Company, The Richmond Hill and Queens County Gas Light Company, and the Jamaica Gas Light Company see report supra note 68, page 117

⁷¹See report supra note 68, page 134.

⁷²N. Y. Laws 1905, ch. 736.

⁷³N. Y. Laws 1905, ch. 737

⁷⁴Consolidated Gas Company v. Meyer et al., (C.C. N.Y. 1906) 146 Fed. 150.

⁷⁵Consolidated Gas Company v. City of New York, (C.C. N.Y. 1907) 157 Fed. 849, 854, 879

⁷⁶Wilcox v. Consolidated Gas Company, (1908) 212 U. S. 19-54, 29 Sup. Ct. 192, 53 L. Ed. 401.

the public, and the company was given the opportunity to open the case again if the rates actually collected did prove insufficient.

The eighty-cent rate evidently yielded a satisfactory return, for it was not challenged again in the federal courts until January, 1919. At that time the company again sought an injunction. The case was once more referred to a master, and a year and a half later he reported on the value. The evidence consisted of over 15,000 printed pages of testimony and exhibits, and there were one hundred exceptions to the master's findings. The company claimed a valuation of \$150,000,000. The master set it at \$75,000,000, the court put it at \$71,977,533, but granted the injunction.⁷⁷ The decree granting the injunction set the rates to be charged at a dollar and twenty cents and impounded the excess above eighty cents until final disposition of the case. On appeal, the Supreme Court, March 6, 1922, affirmed the lower court but released the impounded receipts and removed the restrictions on rates set by the court.⁷⁸ The record in this case in the Supreme Court alone contained twenty thousand printed pages and filled 21 volumes.⁷⁹ The lower court allowed a master's fee of \$118,000, which was cut by the Supreme Court to \$49,250.⁸⁰

This left the company entirely without regulation as to rates, which soon rose to as high as one dollar and fifty cents per unit. On August 30, 1922, the company and commission agreed upon a dollar and fifteen cents,⁸¹ which stood until June, 1923, when the legislature set the rate at one dollar.⁸²

Again the companies applied for an injunction. Once more, after the company had taken a year to prepare it, a master heard the evidence, and submitted his voluminous report. As usual the court affirmed the master, enjoined enforcement of the rate, and impounded the excess under bond.⁸³ Finally, in November, 1926, the Supreme Court affirmed the lower court,⁸⁴ and the

⁷⁷Consolidated Gas Co. of New York v. Newton, (D.C. N.Y. 1920) 267 Fed. 231, 240, 268.

⁷⁸Newton v. Consolidated Gas Company, (1921) 258 U. S. 165, 177 42 Sup. Ct. 264, 66 L. Ed. 538.

⁷⁹Newton v. Consolidated Gas Co., (1921) 258 U. S. 165, 174, 42 Sup. Ct. 264, 66 L. Ed. 538.

⁸⁰Newton v. Consolidated Gas Co., (1921) 259 U. S. 101, 42 Sup. Ct. 438, 66 L. Ed. 844.

⁸¹Public Service Commission (New York) 1922, 187

⁸²N. Y. Laws 1923, ch. 899.

⁸³Consolidated Gas Co. of New York v. Prendergast, (D.C. N.Y. 1925) 6 F (2d) 243; see also final decree as set out in the record of Ottinger v. Consolidated Gas Co., 272 U. S. record, pp. 322, 325.

⁸⁴Ottinger v. Consolidated Gas Co., (1926) 272 U. S. 576, 47 Sup. Ct. 198, 71 L. Ed. 420.

company was returned to the makeshift rate fixed by agreement with the commission in 1922.

Briefly summarized, the result of all this litigation has been about as follows

It has now been twenty-two years since the commission attempted to put the first rates into effect.

During this time there have been only ten years of normal collecting of rates, and twelve years of continuous litigation.⁸⁶

The companies were practically without regulation and free to set their own rates for seven years.⁸⁶

Part of the proceeds of the rates were held under bond for redistribution pending the result of litigation for nine years.

Refunds of twenty cents for every thousand cubic feet of gas consumed over a period of three years were supposed to have been made to all customers.

The printed records in the United States Supreme Court covering these eight cases,⁸⁷ which contain only a fraction of the evidence and are abbreviated as much as possible,⁸⁸ fill over forty-five huge volumes. These volumes are larger than the complete output of the highest courts of each of fourteen states, the District of Columbia, and all of the territories under the jurisdiction of the federal courts.⁸⁹

⁸⁵This does not take into account the investigation by legislative committees and cases before the commission. For an indication of the number and complexity of these cases see 1 Public Service Commission (New York), 187-196.

⁸⁶But see *Morrell v. Brooklyn Borough Gas Co.*, (1921) 231 N. Y. 398, 132 N. E. 129, holding commission may approve rates.

⁸⁷*Wilcox v. Consolidated Gas Co.*, (1908) 212 U. S. 19, 29 Sup. Ct. 192, 53 L. Ed. 382; *Newton v. Consolidated Gas Co.*, (1921) 258 U. S. 165, 42 Sup. Ct. 264, 66 L. Ed. 538, *Newton v. Kings County Lighting Co.*, (1921) 258 U. S. 180, 42 Sup. Ct. 268, 66 L. Ed. 550; *Newton v. New York & Queens Gas Co.*, (1921) 258 U. S. 178, 42 Sup. Ct. 268, 66 L. Ed. 549; *Newton v. Brooklyn Union Gas Co.*, (1921) 258 U. S. 604, 42 Sup. Ct. 313, 66 L. Ed. 786; *Newton v. Consolidated Gas Co.*, (1921) 259 U. S. 101, 42 Sup. Ct. 438, 66 L. Ed. 844, *Ottinger v. Brooklyn Union Gas Co.*, (1926) 272 U. S. 579, 47 Sup. Ct. 199, 71 L. Ed. 421 *Ottinger v. Consolidated Gas Co.*, (1926) 272 U. S. 576, 47 Sup. Ct. 198, 71 L. Ed. 420.

⁸⁸See Equity Rules 75 and 76 together with the court's remarks in *Newton v. Consolidated Gas Co.*, (1921) 258 U. S. 165, 173-174, 42 Sup. Ct. 264, 66 L. Ed. 538, where the court reprimands counsel for including too much material in the record. But in spite of this warning which reduces the evidence to the minimum, the voluminous records continued to appear in the cases which followed.

⁸⁹Arizona, Colorado, Delaware, Florida, Idaho, Montana, Nevada, New Hampshire, New Mexico, Rhode Island, South Dakota, Utah, Vermont, Wyoming, Alaska, Hawaii, Porto Rico, Philippine Islands and District of Columbia.

This mass of evidence, in whole or in part, passed through the hands of one or more legislative committees, seven different masters and six federal courts. There are at least twenty-three reported decisions,⁹⁰ covering a total of about 319 pages,⁹¹ dealing almost entirely with questions of fact, but the valuation of the companies' property is no nearer final determination than it was twenty-two years ago.

During this entire period the companies have not had rates imposed upon them against their consent.⁹²

This experience of the state of New York with its gas companies has been set forth in full not because it is unique, but because it typifies similar unsuccessful attempts by municipalities and state governments to regulate the rates of their own public utilities. Almost any city in the United States with privately owned utility plants has its counterpart of this never-ending struggle.⁹³

⁹⁰Consolidated Gas Co. Cases: (C.C. N.Y. 1906) 146 Fed. 150; (C.C. N.Y. 1907) 157 Fed. 849; (1908) 212 U. S. 19, 29 Sup. Ct. 192, 53 L. Ed. 382; (D.C. N.Y. 1919) 256 Fed. 238; (D.C. N.Y. 1919) 260 Fed. 244; *id.* 1022; (1919) 253 U. S. 219, 40 Sup. Ct. 511, 64 L. Ed. 870; (D.C. N.Y. 1920) 267 Fed. 231, (D.C. N.Y. 1921) 274 Fed. 986; (1921) 258 U. S. 165, 42 Sup. Ct. 264, 66 L. Ed. 538; (1921) 259 U. S. 101, 42 Sup. Ct. 438, 66 L. Ed. 844; (D.C. N.Y. 1925) 6 F (2d) 243; (1926) 272 U. S. 576, 47 Sup. Ct. 198, 71 L. Ed. 420; New York and Queens Gas Co. Cases: (D.C. N.Y. 1920) 269 Fed. 277 (1921) 258 U. S. 178, 42 Sup. Ct. 268, 66 L. Ed. 549; Kings County Gas Co. Cases: (D.C. N.Y. 1920) 268 Fed. 143; (1921) 258 U. S. 180, 42 Sup. Ct. 268, 66 L. Ed. 550; (D.C. N.Y. 1925) 7 F (2d) 192; Brooklyn Union Gas Co. Cases: (D.C. N.Y. 1920) 269 Fed. 452; (1921) 258 U. S. 604, 42 Sup. Ct. 313, 66 L. Ed. 786; (D.C. N.Y. 1925) 7 F (2d) 628; (1926) 272 U. S. 579, 47 Sup. Ct. 199, 71 L. Ed. 420.

⁹¹These opinions are no longer than the average and are occupied chiefly with the discussion of facts, which shows conclusively that the points of law involved in these cases are of no consequence.

⁹²Although the company lost the first appeal to the Supreme Court in 212 U. S. 19, 29 Sup. Ct. 192, 53 L. Ed. 382, it was given the opportunity to reopen the case at once if the rates did not prove compensatory. The fact that the company waited for nine years before availing itself of this privilege, although prices were steadily rising, is an indication that the rates yielded a satisfactory return.

⁹³The Lincoln Gas Company of Lincoln, Nebraska, kept a city ordinance suspended by litigation for thirteen straight years (1906-1919), and the case after being in the Supreme Court five times was still unsettled at the end of that period. See Lincoln Gas Co. Cases, (1911) 223 U. S. 349, 32 Sup. Ct. 271, 56 L. Ed. 466; (1919) 250 U. S. 256, 39 Sup. Ct. 454, 63 L. Ed. 968; (1919) 253 U. S. 477, 40 Sup. Ct. 585, 64 L. Ed. 1022; (1920) 256 U. S. 512, 41 Sup. Ct. 558, 65 L. Ed. 1066; (1921) 257 U. S. 6, 42 Sup. Ct. 2, 66 L. Ed. 101. Although the company finally lost the first suit it immediately opened another due to changed price levels, see *id.* (1921) 257 U. S. 6, 8, 42 Sup. Ct. 2, 66 L. Ed. 101. Kansas City had a similar experience, see *Landon v. Public Utilities Commission, etc.*, (D.C. Kan. 1916) 234 Fed. 152; (D.C. Kans. 1917) 242 Fed. 658; (D.C. Kans. 1917) 245

VIII RESULTS MEASURED BY ENDS TO BE ACHIEVED IN RATE REGULATION

What is the result of all this effort and expense when measured in terms of the interests involved and the ends to be achieved in rate regulation?

The present methods of procedure by courts and commissions offer the companies little freedom of action and no stabilized basis upon which to construct a sound industrial development. The companies are forced to spend millions of dollars and the best efforts of their experts in the needless speculation as to values of property.⁹⁴ The constant litigation, with its impounding of rates, is an annoyance that detracts from the constructive efforts of executives. The income at its best depends upon a gambler's chance that the court will accept one expert's opinion rather than another's. If the reproduction theory of setting value as a basis of rates, which seems to dominate at present,⁹⁵ is continued in a period of falling prices, it will run the market of utility securities and result in the bankruptcy of many companies.⁹⁶

The customer on the other hand is subject to all sorts of annoyances, the constant changes of rates by injunctions, the retroactive effect of Supreme Court decisions coming years after the litigation starts, uncertain business conditions following the unforeseeable variations in rates, and the loss of large sums of

Fed. 950; (1918) 249 U. S. 236, 39 Sup. Ct. 268, 63 L. Ed. 577 (D.C. Kans. 1920) 269 Fed. 411 *id.* 423, *id.* 433. The street railway fights of Boston, New York, Chicago, and the New Jersey shore have added their bit to the general confusion, see cases cited in note 97 below, and other less striking but equally serious situations in all parts of the country see cases cited in notes 105 and 106 below.

⁹⁴See note 47 above.

⁹⁵Reproduction cost is the dominant element in determining value, see, *New York Telephone Co. v. Prendergast*, (D.C. N.Y. 1924) 300 Fed. 822; *Van Wert Gas Light Co. v. Public Utilities Commission*, (D.C. Ohio, 1924) 299 Fed. 670, 673, *Monroe Gas Light and Fuel Co. v. Michigan Public Utilities Commission*, (D.C. Mich. 1923) 292 Fed. 139; *Consolidated Gas Co. v. Prendergast*, (D.C. N.Y. 1925) 6 F (2d) 243, 280; *Bluefields Water Works v. Public Service Commission*, (1922) 262 U. S. 679, 43 Sup. Ct. 675, 67 L. Ed. 1176; *Missouri ex rel. Southwestern Bell Co. v. Public Service Commission*, (1922) 262 U. S. 276, 43 Sup. Ct. 544, 67 L. Ed. 981 *McCardle v. Indianapolis Water Co.*, (1926) 272 U. S. 400, 47 Sup. Ct. 144, 71 L. Ed. 316; but see the dissenting opinions cited in note 36 above.

⁹⁶Owing to the many factors involved it is impossible to trace the effect of any one decision upon the price of stocks and bonds. It is fair to say however, that over a long period of time regulation has forced down railroad securities; but as yet it has shown no effect in the market for local utility securities, which are now at a premium on all markets.

money due to the impossibility of refunding overcharges on impounded rates subsequently declared illegal. The impracticability of these refund measures and the inconveniences which they cause, is best illustrated by the Chicago, New York, and New Jersey traction cases where the courts devised injunctions requiring the companies to issue to millions of passengers daily, one and two cent refund slips, the majority of which would be lost long before the cases were settled.⁹⁷ In addition to these difficulties, the emphasis on reconstruction value as a rate base tends to block improvement in the service. It encourages the companies in using antiquated machinery and obsolete equipment because of the increase of rates which will result from the practice of including such machinery in the valuation at prices many times greater than its original cost or present value as productive equipment. Thus, in a recent case an obsolete pumping plant that cost less than two hundred thousand and could have been replaced with modern machinery for less than three hundred thousand, was allowed a "reproduction" value of over one million dollars.⁹⁸

But, though the consumer is heavily burdened, the public at large is the greatest sufferer from the present "process" of valuation. The unnecessary social friction due to the overloading of the legal machinery, the diverting of the attention of courts from other important matters of law to attend to purely speculative questions of fact, the lost effort of commissions due to constant delays and unnecessary reversals, all these are minor matters compared with the financial cost entailed in the proper conduct of a valuation case. Expert witnesses and capable counsel are expensive luxuries. One eastern public service corporation reports that the engineering cost alone of evaluating a two hundred and thirty million dollar plant was over a million and three quarters dollars. Add to this the fees of expert witnesses and a competent legal staff and it becomes apparent that no private citizen or civic organization can, and no state governmental agency supported by taxes will, attempt to compete with the corporations in gathering and presenting evidence before the master or the

⁹⁷For this ridiculous piece of judicial rate making see, *Public Service Ry. v. Board of Public Utility Commissioners*, (D.C. N.Y. 1921) 276 Fed. 979, 990; *Chicago Rys. Co. v. Illinois Commerce Commission*, (D.C. Ill. 1922) 277 Fed. 970, 982; *Interboro Rapid Transit Co. v. Gilchrist*, (C.C.A. 5th Cir. 1928) 26 F (2d) 912, 928; and *Los Angeles Ry. Company v. Ry. Commission of California*, (D.C. Calif. 1928) 29 F (2d) 140, 147

⁹⁸This was approved by the Supreme Court in the *Indianapolis Water case*, see footnote 39 above and other instances there cited.

court. The result is that the companies' cases always have the preponderance of plausible opinion, and we may expect to find them winning most of the valuation cases.

This expectation is amply supported by the results in the federal courts. An examination of the cases decided since 1912, the date of the *Minnesota Rate Case*⁹⁹ which first laid down the valuation process in its present form, shows that out of sixteen cases in the Supreme Court raising the complete *fact* of valuation,¹⁰⁰ the companies have succeeded in having the rates permanently enjoined in fourteen.¹⁰¹ In one,¹⁰² the lower court,

⁹⁹The *Minnesota Rates Case*, (1912) 230 U. S. 352, 33 Sup. Ct. 729, 57 L. Ed. 1511, and similar cases where interstate and intrastate valuation questions are raised, are omitted from this compilation because they turn on considerations other than valuation, for an example of these cases see *Missouri Rate Case*, (1912) 230 U. S. 474, 33 Sup. Ct. 975, 57 L. Ed. 1571 *Cumberland Telephone & Tel. Co. v. Louisiana Public Service Co.*, (D.C. La. 1922) 283 Fed. 215 and cases there cited.

¹⁰⁰Those cases where the parties agreed on the basic facts of valuation but disputed their legal application [*Des Moines Gas Co. v. Des Moines*, (1914) 238 U. S. 153, 35 Sup. Ct. 811, 59 L. Ed. 1244 *Galveston Electric Co. v. Galveston*, (1922) 258 U. S. 388, 42 Sup. Ct. 351, 66 L. Ed. 78, *Brush Electric Co. v. Galveston*, (1923) 262 U. S. 443, 43 Sup. Ct. 606, 67 L. Ed. 1076; and *Pacific Gas & Electric Co. v. San Francisco*, (1923) 265 U. S. 403, 44 Sup. Ct. 537 68 L. Ed. 1075] and those in which the only dispute was as to the elements that were to be used in finding the valuation [*Water Co. of Tonopah v. Public Service Com. of Nev.*, (D.C. Nev. 1913) 250 Fed. 304 *Citizens Gas Co. v. Public Service Com.*, (D.C. Mo. 1925) 8 F (2d) 632; and *United Fuel Gas Co. v. Railroad Commission of Ky.*, (D.C. Ky. 1925) 13 F (2d) 510, affirmed, Jan. 2, 1929, 3 U. S. Daily 2686, 49 Sup. Ct. 150] have been omitted because the factors are different, but even here the companies have a marked advantage since the courts have begun to forsake the doctrine of *Smythe v. Ames* and to look for a rule for finding valuation. For the results in these earlier cases, see note to *Mr. Justice Brandeis' concurring opinion in the Southwestern Bell Telephone case*, (1923) 262 U. S. 276, 296, 43 Sup. Ct. 544, 67 L. Ed. 981.

¹⁰¹*San Joaquin Co. v. Stanislaus County* (1913) 233 U. S. 454, 34 Sup. Ct. 652, 58 L. Ed. 1041 *Denver v. Denver Union Water Co.*, (1918) 246 U. S. 178, 39 Sup. Ct. 278, 62 L. Ed. 649; *San Antonio v. San Antonio Public Service Commission*, (1921) 255 U. S. 547 41 Sup. Ct. 428, 65 L. Ed. 777 *Newton v. Consolidated Gas Co.*, (1922) 258 U. S. 165, 42 Sup. Ct. 264, 66 L. Ed. 538, *Newton v. Kings Light Co.*, (1922) 258 U. S. 180, 42 Sup. Ct. 268, 66 L. Ed. 550; *Newton v. New York & Queens Gas Co.*, (1922) 258 U. S. 178, 42 Sup. Ct. 268, 66 L. Ed. 549; *Newton v. Brooklyn Union Gas Co.*, (1922) 258 U. S. 604, 42 Sup. Ct. 313, 66 L. Ed. 786; *Houston v. Southwestern Bell Tel. Co.*, (1922) 259 U. S. 318, 42 Sup. Ct. 486, 66 L. Ed. 961 *Southwestern Bell Tel. Case*, (1922) 262 U. S. 276, 43 Sup. Ct. 544, 67 L. Ed. 981, *Bluefields Water Works Co. v. Public Service Com.*, (1922) 262 U. S. 679, 43 Sup. Ct. 675, 67 L. Ed. 1176; *Ohio Public Utilities Co. v. Public Utilities Commission*, (1925) 267 U. S. 359, 45 Sup. Ct. 259, 69 L. Ed. 656; *McCardle v. Indianapolis Water Co.*, (1926) 272 U. S. 400, 47 Sup. Ct. 144, 71 L. Ed. 316; *Ottinger v. Brooklyn Union Gas Co.*, (1926) 272 U. S. 579, 47 Sup. Ct. 199, 71 L. Ed. 421 *Ottinger v. Consolidated Gas Co.*, (1926) 272 U. S. 576, 47 Sup. Ct. 198, 71 L. Ed. 420.

refusing on preliminary hearing to grant a temporary injunction, was affirmed, and the one remaining case, which the company lost, was the *Lincoln Gas Case* which was in litigation for thirteen years.¹⁰³ The results of similar cases in the lower federal courts are even more striking. Of the Supreme Court cases cited above, three are from state courts and the remaining represent seventeen cases from federal courts all but one of which were affirmed as decided, and this one reversal was of a decision against the company.¹⁰⁴ In addition to these, forty-one other cases on this point have been found in lower federal courts. Of these, the companies won thirty-six. In twenty-five,¹⁰⁵ permanent injunctions were granted, and in eleven,¹⁰⁶ the cases appear to have been

¹⁰²*Georgia Ry. & Power Co. v. Railway Commission*, (1923) 262 U. S. 625, 43 Sup. Ct. 680, 67 L. Ed. 1144.

¹⁰³For a history of this case see note 93 above.

¹⁰⁴*San Joaquin Co. v. Stanislaus County*, (1913) 233 U. S. 454, 34 Sup. Ct. 652, 58 L. Ed. 1041.

¹⁰⁵*Montana W & S. Ry. Co. v. Mosley* (D.C. Mont. 1912) 198 Fed. 991; *Garden City v. Garden City Tel. Light & Mfg. Co.*, (C.C.A. 8th Cir. 1916) 236 Fed. 693; *Spring Valley Water Co. v. City of San Francisco*, (D.C. Calif. 1918) 252 Fed. 979; *Houston Electric Co. v. City of Houston*, (D.C. Tex., 1920) 265 Fed. 360; *Kings County Lighting Co. v. Nixon*, (D.C. N.Y. 1920) 268 Fed. 143; *Landon v. Court of Industrial Relations*, (D.C. Kans. 1920) 269 Fed. 411; *Landon v. Court of Industrial Relations*, (D.C. Kans. 1920) 269 Fed. 433; *City of Winona, Wisconsin v. Minneapolis Light & Power Co.*, (D.C. Minn. 1921) 276 Fed. 996; *Alton Water Co. v. Commerce Commission et al.* (D.C. Ill. 1922) 179 Fed. 869; *City of Minneapolis v. Rand*, (C.C.A. 8th Cir. 1923) 285 Fed. 818; *Mobile Gas Co. v. Patterson et al.*, (D.C. Ala. 1923) 293 Fed. 208; *Streator Aqueduct Co. v. Smith*, (D.C. Ill. 1923) 295 Fed. 385; *Colorado Power Co. v. Holderman*, (D.C. Col. 1924) 295 Fed. 178; *Swan v. Public Utilities Commission*, (D.C. Kans. 1922) 298 Fed. 114; *Chesapeake & Potomac Tel. Co. v. Public Service Com.*, (D.C. Md. 1925) 3 F (2d) 938; *Southwestern Bell Tel. & Tel. Co. v. Ry. Com. of S. C.*, (D.C. S.C. 1925) 5 F (2d) 77; *Citizens Gas Co. v. Public Service Com.*, (D.C. Mo. 1925) 8 F (2d) 632; *Springfield Gas & Electric Co. v. Pub. Serv. Com. of Missouri*, (D.C. Mo. 1925) 10 F (2d) 252; *N. Y. Richmond Gas Co. v. Prendergast*, (D.C. N.Y. 1925) 10 F (2d) 167; *Middlesex Water Co. v. Public Utility Com.*, (D.C. N.J. 1926) 10 F (2d) 519; *Pacific Tel. & Tel. Co. v. Whitcomb*, (D.C. Wash. 1926) 12 F (2d) 279; *Home Tel. & Tel. Co. v. Whitcomb*, (D.C. Wash. 1926) 12 F (2d) 279; *Brooklyn Borough Gas Co. v. Prendergast*, (D.C. N.Y. 1926) 16 F (2d) 615; *Public Utilities Commission of D. C. v. Capital Traction Co.*, (C.A. D.C. 1927) 17 F (2d) 673; and *Idaho Power Co. v. Thompson* (D.C. Idaho 1927) 19 F (2d) 547.

¹⁰⁶*Bombright v. Geary*, (D.C. Ariz. 1913) 210 Fed. 44; *Springfield Gas & Electric Co. v. Barker, Atty. Gen.*, (D.C. Mo. 1915) 231 Fed. 331; *Kansas City C. C. & St. Ry. v. Barker, Atty. Gen.*, (D.C. Mo. 1915) 242 Fed. 310; *Public Service Ry. v. Board of Pub. Utility Com.*, (D.C. N.J. 1921) 276 Fed. 979; *Chicago Rys. Co. v. Illinois Commerce Com.*, (D.C. Ill. 1922) 277 Fed. 970; *Monroe Gas Light & Fuel Co. v. Michigan Pub. Utility Com.*, (D.C. Mich. 1923) 292 Fed. 139; *Ohio Bell Tel. Co. v. Public Utilities Com.*, (D.C. Ohio 1924) 3 F (2d) 701; *Ashland Water Co. v. Railroad Com. of Washington*, (D.C. Wis.

dropped by the public after the companies won temporary injunctions, or appeals are still pending. In the remaining five, the companies failed to receive permanent injunctions in two,¹⁰⁷ apparently dropped one case on the refusal of the temporary injunction,¹⁰⁸ and the remaining two cases,¹⁰⁹ where preliminary injunctions were refused, are still in litigation pending the finding of facts by the master. Briefly summarized the results are as follows the companies have won eighty-seven per cent of all cases involving the fact of value, and out of a total of sixty-four cases¹¹⁰ they have lost only two which they pursued to the end of their legal remedies. In one of these they substantially gained their ends by keeping the rate suspended by litigation for thirteen years. Out of this whole welter of cases, then, we find only one where the rate set by the commission was allowed to stand as originally fixed without interference.

However, the mere fact that the companies win about all their cases can not present a conclusive argument against the justice of the system. It may be possible, but not highly probable, that on the merits the companies are entitled to gain their ends in over eighty-five per cent of the cases in which they differ with the commissions on the fact of value. The mere fact that the companies win can make little difference to the general public. But this is by no means the end of the story judicial reasoning has allowed the major portion of the companies' costs in fighting all their expensive cases to be passed on to the consumers under the guise of operating expenses.¹¹¹ Thus the public is not only forced directly to pay its portion of the expenses incurred by the state in needless effort in the courts, but must also pay indi-

1925) 7 F (2d) 924; *Monroe Gas Light & Fuel Co. v. Public Util. Com.*, (D.C. Mich. 1926) 11 F (2d) 319; *Columbus Gas & Fuel Co. v. City of Columbus*, (D.C. Ohio 1927) 17 F (2d) 630; and *Interboro Rapid Transit Co. v. Gilchrist*, (C.C.A. 5th Cir. 1928) 26 F (2d) 912.

¹⁰⁷*Reno Power, Light & Water Co. v. Pub. Serv. Com. of Nevada*, (D.C. Nev. 1923) 298 Fed. 790; *Columbus Gas & Fuel Co. v. City of Columbus*, (D.C. Ohio 1927) 17 F (2d) 630.

¹⁰⁸*Goldfield Consolidated Water Co. v. Public Service Com.*, (D.C. Nev. 1916) 236 Fed. 979.

¹⁰⁹*United Fuel & Light Co. v. Public Service Com.*, (D.C. W Va. 1926) 14 F (2d) 209; and *Cambridge Electric Light Co. v. Atwell*, (D.C. Mass. 1928) 25 F (2d) 485.

¹¹⁰This number is not the result of an exhaustive search, but it is believed that most of the cases involving the fact of value have been found. For other related cases see notes 99 and 100 above.

¹¹¹See *Consolidated Gas Co. v. Newton*, (D.C. N.Y. 1920) 267 Fed. 231, 254; *New York & Queens Gas Co. v. Newton*, (D.C. N.Y. 1920) 269 Fed. 277, 290; *Consolidated Gas Co. v. Prendergast*, (D.C. N.Y. 1925) 6 F (2d) 243, 280.

rectly in higher rates the legal expenses the company incurs in opposing the public interest by fighting for these higher rates.¹¹²

If a victory for the company in a rate litigation were the final disposal of the case the public, in the interest of certainty, might be well content with paying the costs of both parties. But, as we have seen, a victory for the company in these cases merely results in a decree enjoining the enforcement of the rates. This means that the case must be reopened and another attempt be made to find a satisfactory rate. The significant fact, from the social point of view, is not so much that the public service companies succeed in making the public foot the bill to defeat itself, but in the fact that about eighty-five per cent of all the rate cases which get into the courts are lost effort and must be fought all over again. The final result is a needless army of public employees, lawyers and experts chasing themselves around in a never-ending circle. Courts are overburdened with unnecessary facts, which they are incapable of handling; and most important of all, since this method of valuation by judges is a process of pyramiding upon the biased opinions of experts¹¹³ the opinions of courts each successively further removed from the actual facts involved, the validity of any particular rate depends finally upon the personal opinion of the judge who has the last say in the matter. Thus a system theoretically based upon an argument that judicial review of the facts is necessary "in order that there may be a government of law and not of men," in practice defeats the very purpose for which it was devised, and valuation of local public utilities is falling into a hopeless morass of clashing personal opinions which can bring no lasting results, except to force

¹¹²In the case of the eastern utility, mentioned above, which spent over a million dollars to prepare data for a valuation case, this huge cost was recovered by the first ten weeks of increased rates granted as a result of the hearings. (Information from private correspondence with executive of the company, name withheld by request.)

¹¹³The testimony of experts in these cases is so colored by the interests of the parties who retain them that it is more misleading than instructive. The testimony of experts on different sides of the case will be found to vary more than 100% on the value of the same object; while those of experts on the same side will vary as much as 50%. For examples of this discrepancy in testimony see the Indianapolis Water Co. Case, note 60 above, where the highest estimate was three times as large as the lowest, and where the company's experts claimed 33% more than the company was willing to accept as a basis of value; the Consolidated Gas Co. Case, (D.C. N.Y. 1920) 267 Fed. 231, where the company's experts claimed 100% more than the master found. See also notes 12 and 13 to Mr. Justice Brandeis' opinion in the Southwestern Bell Case, (1922) 262 U. S. 276, 299, 43 Sup. Ct. 544, 67 L. Ed. 981, and examples and articles there cited.

commissions and companies alike to turn to extra-judicial procedure to settle their disputes.

Yet in spite of this failure of the federal courts to make progress with the problem of evaluating local utilities, we now have it argued by eminent counsel that this same method is "due process of law," must be written into the constitution, and, under the fifth amendment, must be applied to the railroad valuations now being compiled by the Interstate Commerce Commission.¹¹⁴

¹¹⁴See Buchanan, *The Ohio Valley Water Company Case and the Valuation of Railroads*, 40 *Harv. L. Rev.* 1033, and summary of reply brief of railroads in the *O'Fallon Case*, 3 *U. S. Daily* 2681.