

1913

ANNUAL REPORT

OF THE DIRECTORS OF

AMERICAN TELEPHONE AND TELEGRAPH COMPANY

TO THE STOCKHOLDERS

FOR THE YEAR ENDING

DECEMBER 31, 1913



NEW YORK, 1914

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American Telephone & Telegraph Company

JANUARY 1, 1914

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Senior Vice President

UNION N. BETHELL

Vice Presidents

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ROBERT WINSOR

* Resigned January 20, 1914.

REPORT OF THE DIRECTORS
OF
AMERICAN TELEPHONE AND TELEGRAPH
COMPANY.

NEW YORK, March 16, 1914.

TO THE STOCKHOLDERS:

Herewith is respectfully submitted a general statement covering the business of the Bell System as a whole, followed by the report of the American Telephone and Telegraph Company, for the year 1913.

BELL TELEPHONE SYSTEM IN
UNITED STATES.

SUBSCRIBER STATIONS.

At the end of the year the number of stations which constituted our system in the United States was 8,133,017, an increase of 676,943, including 215,181 connecting stations. 2,717,808 of these were operated by local, co-operative and rural independent companies or associations having sub-license or connection contracts, so-called connecting companies.

TELEPHONE TOLL STATIONS.

The Bell telephone toll lines of the United States now reach 70,000 places, from many of which a telegraph message can be sent. The extent of the system is best realized by comparison with less than 60,000 post offices, 60,000 railroad stations and regular telegraph offices at about 25,000 places.

WIRE MILEAGE.

The total mileage of wire in use for exchange and toll service was 16,111,011 miles, of which 1,500,198 were added during the year. Of the total mileage nearly 13,800,000 miles were exchange wires, and over 2,300,000 toll wires. These figures do not include the mileage of wire operated by connecting companies. Of this total wire mileage 92 per cent. is copper wire. 8,817,815 miles are underground, including 543,923 miles of toll wires in underground cables. The underground conduits represent a cost of \$85,700,000 and the cables in the conduits \$95,800,000—a total in underground plant of \$181,500,000.

TRAFFIC.

Including the traffic over the long-distance lines, but not including connecting companies, the daily average of toll connections was about 806,000, and of exchange connections about 26,431,000, as against corresponding figures in 1912 of 738,000 and 25,572,000; the total daily average for 1913 reaching 27,237,000, or at the rate of about 8,770,300,000 per year.

TRAFFIC OF THE UNITED STATES AND EUROPE.

The following figures compare the telephone traffic with the two other branches of transmission of intelligence—the mail and the telegraph—in the United States and in Europe during the year 1912:

Type of Message.	EUROPE		UNITED STATES	
	Number During 1912	Per Cent. of Total Europe	Number During 1912	Per Cent. of Total U. S.
First Class Mail				
Matter.....	17,775,000,000	71.2%	10,212,000,000	39.4%
Telegrams.....	388,000,000	1.5%	113,000,000	0.4%
Telephone Conver- sations.....	6,809,000,000	27.3%	15,600,000,000	60.2%
Total.....	24,972,000,000	100.0%	25,925,000,000	100.0%

In other words, although Europe has about three and a half times the telegraph traffic of the United States, and nearly twice the first class mail traffic, it has only two-fifths the telephone traffic of the United States.

The use of the telegraph in Europe was about 2 per cent. of the mails, while in the United States it was but 1 per cent., the greater efficiency and distribution of the telephone causing the difference.

PLANT ADDITIONS.

The amount added to plant and real estate by all the companies, excluding connecting companies, constituting our system in the United States during the year 1913 was \$54,871,856, distributed as follows:—

Real Estate.....	\$ 6,109,675
Equipment.....	16,419,143
Exchange Lines.....	23,461,226
Toll Lines.....	8,803,441
Construction Work in Progress and Undistributed Plant.....	78,371
	<hr/>
	\$54,871,856

PLANT ADDITIONS OF PREVIOUS YEARS.

The amounts added in fourteen years have been as follows:—

1900.....	\$31,619,100	1907.....	\$52,921,400
1901.....	31,005,400	1908.....	26,637,200
1902.....	37,336,500	1909.....	28,700,100
1903.....	35,368,700	1910.....	53,582,800
1904.....	33,436,700	1911.....	55,660,700
1905.....	50,780,900	1912.....	75,626,900
1906.....	79,366,900	1913.....	54,871,900

making a total for the fourteen years of \$646,915,200.

CONSTRUCTION FOR THE CURRENT YEAR.

Estimates of all the associated operating companies and of the American Telephone and Telegraph Company for all new construction requirements in 1914 have been prepared. It is estimated that about \$56,000,000 will be required for current additions to plant in 1914,

of which amount some \$25,000,000 will be provided by the existing and current resources of the companies.

MAINTENANCE AND RECONSTRUCTION.

During the year \$70,183,000 was applied out of revenue to maintenance and reconstruction purposes; of this, over \$13,000,000 was unexpended for those purposes.

The total provision for maintenance and reconstruction charged against revenue for the last ten years was over \$457,000,000.

DEPRECIATION.

The necessity of providing fully for that depreciation which comes from obsolescence continues and will continue so long as the improvement of the equipment, apparatus and service, and increase in possible distance of communication continue.

Limited local service can be given by a plant that would be useless in a comprehensive system made up of local exchange and toll and particularly in connection with long-distance service. Although 90 per cent. of the connections are purely local, the 10 per cent. that are not local are more important and of a greater necessity than the 90 per cent. local and must be equally available through one station equipment. For that reason the Bell plant must be maintained at a higher standard than would be necessary if it were a purely local exchange service.

Improvements in service and particularly in equipment and operating methods have been continuous and so gradual that it is hard to realize the extent of them. Those familiar with the service five years ago and not in touch with it again until the present time would recognize and appreciate the changes which those in daily touch do not realize and cannot fully appreciate. In that time

the radius of conversation has doubled. It is easier to talk with Denver to-day than with Chicago then, and with the completion of the line to the Pacific Coast in 1915, commercial communication will be dependable and practicable. The policy of investing the depreciation reserve in revenue-earning plant has continued, and the public is getting the advantage of the use of a large amount of plant upon which no dividends or interest charges have to be earned.

OPERATING RESULTS FOR THE YEAR.

The following tables show the business for the year of the Bell Telephone System including the American Telephone and Telegraph Company and its associated holding and operating companies in the United States, but not including connecting independent or sub-licensee companies, nor the Western Electric Company and Western Union Telegraph Company except as investments in and dividends from those companies are included respectively in assets and revenue. All inter-company duplications are eliminated in making up these tables so that the figures represent the business of the system as a whole in its relations to the public.

The gross revenue in 1913 of the Bell System—not including the connected independent companies—was \$215,600,000; an increase of over \$16,000,000 over last year. Of this, operation consumed \$75,400,000; taxes, \$11,300,000 or one and one-half per cent. on the outstanding capital obligations; current maintenance, \$32,500,000; and provision for depreciation, \$37,700,000.

The surplus available for charges, etc., was \$58,700,000, of which \$16,700,000 was paid in interest and over \$30,300,000 was paid in dividends.

The total capitalization, including inter-company items and duplications but excluding reacquired securities of the

companies of the Bell System, is \$1,390,242,470. Of this \$620,127,086 is owned and in the treasury of the companies of the Bell System. The capital stock, bonds and notes payable *outstanding in the hands of the public at the close of the year* were \$770,115,384. If to this be added the current accounts payable, \$26,471,681, the total outstanding obligations of every kind were \$796,587,065, as against which there were liquid assets, cash and current accounts receivable, of \$72,237,885, leaving \$724,349,180 *as the net permanent capital obligations* of the whole system outstanding in the hands of the public.

By Act of Congress approved March 1, 1913, the Interstate Commerce Commission is directed to make a valuation of all property owned or used by every common carrier under the jurisdiction of the commission, which includes all the principal telephone companies. This great work has been started and we are assisting the representatives of the commission in pushing it forward. As stated in last year's report, our engineers' appraisals have shown that the cost of *reproduction* of the Bell properties, not including cost of intangibles, would exceed their book cost by some \$61,000,000. We believe that the valuation by the Interstate Commerce Commission when completed will confirm our repeated statements that the *true value* of our telephone plants is much greater than the book value.

These telephone plants stand on the books of the companies at \$797,159,487, as of December 31, 1913, an increase during the year of \$54,871,856 or 7.4 per cent., which compares with an increase of 8.2 per cent. in gross earnings. Other assets increased \$871,421, making a total increase in assets of \$55,743,277. This increase of \$55,743,277 is represented by \$45,408,111 increase in outstanding obligations for the whole system and an increase in surplus and reserves of \$10,335,166.

BELL TELEPHONE SYSTEM IN UNITED STATES.

COMPARISON OF EARNINGS AND EXPENSES, 1912 AND 1913.

(ALL DUPLICATIONS, INCLUDING INTEREST, DIVIDENDS
AND OTHER PAYMENTS TO AMERICAN TELEPHONE AND
TELEGRAPH COMPANY BY ASSOCIATED HOLDING
AND OPERATING COMPANIES, EXCLUDED.)

	1912.	1913.	Increase.
Gross Earnings.....	\$199,172,154	\$215,572,822	\$16,400,668
Expenses—Operation.....	\$ 65,246,677	\$ 75,404,092	\$10,157,415
Current Maintenance.....	31,762,636	32,442,979	680,343
Depreciation.....	34,942,802	37,739,991	2,797,189
Taxes.....	10,333,349	11,296,237	962,888
Total Expenses.....	\$142,285,464	\$156,883,299	\$14,597,835
Net Earnings.....	\$ 56,886,690	\$ 58,689,523	\$ 1,802,833
Deduct Interest.....	14,205,365	16,652,624	2,447,259
Balance Net Profits.....	\$ 42,681,325	\$ 42,036,899	\$ 644,426*
Deduct Dividends Paid.....	29,460,215	30,301,705	841,490
Surplus Earnings.....	\$ 13,221,110	\$ 11,735,194	\$ 1,485,916*

COMBINED BALANCE SHEETS, 1912 AND 1913.

(DUPLICATIONS EXCLUDED.)

ASSETS:	Dec. 31, 1912.	Dec. 31, 1913.	Increase.
Telephone Plant.....	\$742,287,631	\$797,159,487	\$54,871,856
Supplies, Tools, etc.....	23,601,262	20,083,113	3,518,149*
Receivables.....	37,700,623	40,349,027	2,648,404
Cash.....	35,729,037	31,888,858	3,840,179*
Stocks and Bonds.....	84,942,265	90,523,610	5,581,345
Total.....	\$924,260,818	\$980,004,095	\$55,743,277
LIABILITIES:			
Capital Stock.....	\$393,209,925	\$395,224,531	\$ 2,014,606
Funded Debts.....	294,380,353	341,147,485	46,767,132
Bills Payable.....	38,268,341	33,743,368	4,524,973*
Accounts Payable.....	25,320,335	26,471,681	1,151,346
Total Outstanding Obligations.....	\$751,178,954	\$796,587,065	\$45,408,111
Employees' Benefit Fund...	8,845,000	8,919,335	74,335
Surplus and Reserves.....	164,236,864	174,497,695	10,260,831
Total.....	\$924,260,818	\$980,004,095	\$55,743,277

* Decrease.

In accordance with our previous practice in making up the combined figures for the Bell System, all inter-company items have been eliminated, and all intangible assets have been excluded, so that the combined surplus and reserves as shown on the preceding page are considerably less than the sum of surplus and reserves shown on the books of the separate companies.

All of the present surplus and reserves, aggregating over \$174,000,000, is invested in tangible and productive property the revenue from which enables the companies to maintain their efficiency without paying capital charges on this amount.

Your attention is called to a comparative statement of the Bell System for the years 1907 and 1913. During that period the gross earnings have increased \$87,000,000, of which \$69,500,000 has been absorbed by increase in expenses, leaving an increase of \$17,500,000 in net earnings. The increase in interest was \$6,100,000 and in dividends \$12,200,000. The surplus for 1913 was \$11,700,000.

During this six-year period the assets of the companies have increased nearly \$367,000,000, while the capital obligations and payables outstanding have increased less than \$245,000,000. The surplus and reserves have increased from \$61,300,000 to \$174,500,000, over \$113,000,000 after setting aside \$8,919,335 for the Employees' Benefit Fund.

AVERAGE OPERATING UNITS OF ASSOCIATED OPERATING
COMPANIES.

(See table on page 13.)

The table on page 13 shows average operating revenue and expenses per station, operating ratios, unit plant cost, etc., of the associated operating companies (not including the American Telephone and Telegraph Company's long-

BELL TELEPHONE SYSTEM IN UNITED STATES.

COMPARISON OF EARNINGS AND EXPENSES, 1907 AND 1913.

(ALL DUPLICATIONS, INCLUDING INTEREST, DIVIDENDS
AND OTHER PAYMENTS TO AMERICAN TELEPHONE AND
TELEGRAPH COMPANY BY ASSOCIATED HOLDING
AND OPERATING COMPANIES, EXCLUDED.)

	1907.	1913.	Increase.
Gross Earnings.....	\$128,579,800	\$215,572,822	\$ 86,993,022
Expenses:			
Operation.....	45,894,900	75,404,092	29,509,192
Current Maintenance....	36,626,700	{ 32,442,979 }	33,556,270
Depreciation.....		{ 37,739,991 }	
Taxes.....	4,873,400	11,296,237	6,422,837
Total Expenses.....	<u>\$ 87,395,000</u>	<u>\$156,883,299</u>	<u>\$ 69,488,299</u>
Net Earnings.....	\$ 41,184,800	\$ 58,689,523	\$ 17,504,723
Deduct Interest.....	10,508,500	16,652,624	6,144,124
Balance Net Profits.....	\$ 30,676,300	\$ 42,036,899	\$ 11,360,599
Deduct Dividends Paid.	18,151,700	30,301,705	12,150,005
Surplus Earnings.....	<u>\$ 12,524,600</u>	<u>\$ 11,735,194</u>	<u>\$ 789,406*</u>

COMBINED BALANCE SHEETS, 1907 AND 1913.

(DUPLICATIONS EXCLUDED.)

ASSETS:	Dec. 31, 1907.	Dec. 31, 1913.	Increase.
Contracts and Licenses... ..	\$ 9,078,000	.....	\$ 9,078,000*
Telephone Plant.....	502,987,900	\$797,159,487	294,171,587
Supplies, Tools, etc.	17,165,200	20,083,113	2,917,913
Receivables.....	29,584,500	40,349,027	10,764,527
Cash.....	24,869,600	31,888,858	7,019,258
Stocks and Bonds.....	29,448,300	90,523,610	61,075,310
Total.....	<u>\$613,133,500</u>	<u>\$980,004,095</u>	<u>\$366,870,595</u>
LIABILITIES:			
Capital Stock.....	\$291,095,400	\$395,224,531	\$104,129,131
Funded Debts.....	196,113,700	341,147,485	145,033,785
Bills Payable.....	45,175,700	33,743,368	11,432,332*
Total Capital Obligations.....	<u>\$532,384,800</u>	<u>\$770,115,384</u>	<u>\$237,730,584</u>
Accounts Payable.....	19,436,600	26,471,681	7,035,081
Total.....	<u>\$551,821,400</u>	<u>\$796,587,065</u>	<u>\$244,765,665</u>
Employees' Benefit Fund.....	.....	8,919,335	8,919,335
Surplus and Reserves....	61,312,100	174,497,695	113,185,595
Total.....	<u>\$613,133,500</u>	<u>\$980,004,095</u>	<u>\$366,870,595</u>

* Decrease.

distance lines), for the years 1895, 1900, 1910, 1912 and 1913.

While the use of the subscriber's station as the unit of telephone statistics is open to the objection that we are using a standard which itself fluctuates, nevertheless it is the best standard or unit thus far obtainable and is therefore continued.

The changes of the past year are not large, but indicate that all the expenditures necessary to the maintenance of the property at a high standard, such as maintenance and depreciation and operation, are continued along normal lines with a slight increase.

Particular attention is called to the per cent. of net earnings and of dividend and interest disbursements to total plant and other assets:

Net earnings to plant and other assets.....	5.69%
Dividends and interest to plant and other assets...	4.92%

In other words, the property employed earned less than 6 per cent. per annum, and the dividends and interest paid were less than 5 per cent. upon the value of the property, which could not be considered unreasonable.

WESTERN ELECTRIC COMPANY.

Sales of the Western Electric Company for 1913 amounted to \$77,532,860, of which \$50,681,070 represents sales to the companies of the Bell Telephone System, and \$26,851,790 represents sales to other customers.

The concentration of the company's manufacturing work at its main plant at Hawthorne, near Chicago, is now nearly completed.

Each year the economies and efficiencies due to the relation between the Western Electric Company and the companies of the Bell Telephone System become more apparent.

AVERAGE OPERATING UNITS OF ASSOCIATED OPERATING COMPANIES, 1895 to 1913.

(THIS TABLE COVERS THE COMPANIES OWNING ALL THE EXCHANGES AND TOLL LINES OF THE BELL TELEPHONE SYSTEM EXCEPT THE LONG-DISTANCE LINES OF AMERICAN TELEPHONE AND TELEGRAPH CO.)

Average per Exchange Station.

EARNINGS:	1895.	1900.	1910.	1912.	1913.
Exchange Service.....	\$ 69.75	\$ 44.68	\$ 31.28	\$ 30.93	\$ 30.45
Toll Service.....	11.35	12.60	9.47	9.21	9.03
Total.....	\$ 81.10	\$ 57.28	\$ 40.75	\$ 40.14	\$ 39.48
EXPENSES:					
Operation.....	\$ 29.15	\$ 21.63	\$ 15.14	\$ 15.17	\$ 15.92
Taxes.....	2.23	2.37	2.00	2.02	2.03
Total.....	\$ 31.38	\$ 24.00	\$ 17.14	\$ 17.19	\$ 17.95
Balance.....	\$ 49.72	\$ 33.28	\$ 23.61	\$ 22.95	\$ 21.53
Maintenance and Depreciation.....	\$ 26.20	\$ 17.68	\$ 13.46	\$ 13.66	\$ 13.06
Net Earnings.....	\$ 23.52	\$ 15.60	\$ 10.15	\$ 9.29	\$ 8.47
Per Cent. Operation Expense to Telephone Earnings.....	35.9	37.8	37.2	37.8	40.3
Per Cent. Telephone Expense to Telephone Earnings.....	71.0	72.8	75.1	76.9	78.6
Per Cent. Maintenance and Depreciation to Average Plant, Supplies, etc.....	9.1	8.4	9.5	9.3	9.1
Per Cent. Increase Exchange Stations*.....	15.7	26.5	11.8	10.5	9.5
Per Cent. Increase Miles Exchange Wire*.....	15.9	33.2	12.0	14.3	10.9
Per Cent. Increase Miles Toll Wire*.....	21.3	25.2	11.5	6.2	6.6
Average Plant Cost Per Exchange Station (including Exchange and Toll Construction).....	\$260	\$199	\$142	\$143	\$141
Average Cost per Mile of Wire (Toll) (including Poles and Conduits).....	\$ 81	\$ 71	\$ 66	\$ 71	\$ 70
Per Cent. Gross Telephone Earnings to Average Plant...	33.4	31.7	29.3	28.9	28.2
Per Cent. Total Net Earnings to Average Capital Obligations..	9.76	8.85	7.52	7.15	6.76
Per Cent. Total Net Earnings to Plant and Other Assets.....	9.36	7.96	6.65	6.15	5.69
Per Cent. Paid Out on Average Capital Obligations.....	5.13	6.10	6.01	5.92	5.85
Per Cent. Paid Out on Plant and Other Assets.....	5.09	5.57	5.31	5.09	4.92

* Increase during year shown, over previous year,

REPORT OF THE AMERICAN TELEPHONE AND TELEGRAPH COMPANY.

EARNINGS.

The net earnings of the American Telephone and Telegraph Company were \$40,576,746.19, an increase of \$2,669,101.93 over 1912. The interest charges were \$7,656,655.78, and the dividends at the regular rate of 8 per cent. per annum were \$27,454,037.15. Of the balance, \$5,466,053.26, there was carried to Reserves \$2,500,000 and to Surplus \$2,966,053.26.

ISSUES OF CAPITAL STOCK AND BONDS.

During the year \$9,809,700 of stock was issued upon conversion of the 4 per cent. bonds of 1906, and in addition \$900 of new stock was issued upon payment of final instalments under the offer of June 20, 1911; making the total increase of capital stock during 1913, \$9,810,600.

At the close of business December 31, 1913, \$145,409,000 of the \$150,000,000 of convertible bonds of 1906 had been handed in for conversion, leaving outstanding at the end of the year \$4,591,000, a reduction in 1913 of \$12,411,000.

The total outstanding capital stock and bonds of the American Telephone and Telegraph Company at December 31, 1913, were as follows:

Capital Stock.....	\$344,616,300
4 Per Cent. Collateral Trust Bonds	78,000,000
4 Per Cent. Convertible Bonds....	4,591,000
5 Per Cent. Western Tel. and Tel. Co. Bonds.....	10,000,000
4½ Per Cent. Convertible Bonds 1933.....	67,000,000
Total.....	\$504,207,300

For the \$344,616,300 capital stock, \$369,136,414 has been paid into the treasury of the Company; the \$24,520,114 in excess of par value represents premiums. All discounts on the bond issues have been charged off. The outstanding capital obligations therefore represent over \$24,500,000 more than their par value.

The number of shareholders, 55,983, on December 31, 1913, shows an increase of 5,686 during the year. That the distribution is general appears from the following:

49,144 held less than 100 shares each;
 6,475 held from 100 to 1,000 shares each;
 331 held from 1,000 to 5,000 shares each;
 17 held 5,000 shares or more each (omitting
 brokers and holders in investment trusts, etc.).

Of the holders of less than 100 shares each,

11,595 held 5 shares or less each;
 36,673 held 25 shares or less each.

The average number of shares held was 59. A majority of the Company's shareholders are women. Less than 6 per cent. of the stock was at December 31st in the names of brokers.

PLAN FOR EMPLOYEES' PENSIONS, DISABILITY BENEFITS
AND INSURANCE.

The plan for benefits to employees in pensions, payments during disability on account of accidents and sickness, and to dependent relatives in cases of death of employees has been in effect a year, during which period in 16,054 cases employees in this Company and the associated operating companies have participated in the benefits, either directly or in cases of deaths through their relatives. The payments have aggregated over a million dollars. A very large percentage of cases has consisted of minor disabilities of the lower salaried employees, to whom even a short cessation of wage earning is a hardship and sometimes a calamity. In connection with the plan much is already being done in the education of the employees as to prevention of sickness. Statistics are being tabulated which will be carefully studied with a view to still further carrying on this work of prevention.

ENGINEERING.

In former times if engineering works endured for centuries that fact counted in their favor. In these modern times it almost seems that the electrical engineer is judged by an opposite standard. It can be said that during the development period of a rapidly growing art, frequent changes in type are to be expected. From the year 1877 to the present time improvements have followed each other with remarkable rapidity.

During the thirty-seven years from 1877 to 1914 there were designed and constructed and installed fifty-three improved types and styles of telephone receiver, and seventy-three types and styles of transmitter. These figures do not include hundreds of minor improvements made in both transmitters and receivers.

At the beginning of 1914 there were in the Bell System 12,000,000 telephone receivers and transmitters owned by the Bell Company. Of these practically none were made prior to 1902, and of all the instruments now in service the average are less than five years old.

Efficient transmitters and receivers are essential to successful telephone transmission, but the problem of talking through long underground cables or over great distances could not be solved by increasing the loudness of the transmitter or the receiver. Failure to understand this has been the cause of loss to many who have invested in companies promoting so-called loud-speaking telephones.

In the transmission of speech one mile of underground cable is often equal to 50 or 100 miles of open wire overhead, and in underground transmission a point was soon reached where no speech could be got by any transmitter.

Unless this difficulty could be minimized, further growth of the telephone was not to be expected. The annual report covering the year 1880 says:

"A large amount of work has been done in the Electrical and Experimental Department, both examining new inventions and testing telephones and apparatus and in studying the question of overhead and underground cables and the improvement of telephones and lines both for short and long distance service. This work is expensive, but it is of the first importance to our company and must be continued."

At that early date our engineers and scientists had rightly determined that they must give attention not only to the apparatus at the ends of the line, but to the line itself and to the intermediate apparatus.

By 1881 we had laid experimental underground cables for a short distance alongside of a Massachusetts railroad track with small results. In 1883 several cables were laid at Boston, the longest of which was 1,500 feet. The

subscribers using this cable could not talk satisfactorily further than the suburbs.

Type after type of cable was installed only to be withdrawn in a few years and replaced by something better.

By 1887 the introduction of the twisted pair underground conductor began. This meant the abandonment of the entire underground plant of the Bell System and the introduction of the new type, without which the telephone system as we know it to-day would be an impossibility.

Millions of dollars were spent in this construction and reconstruction and experimental work. By 1902 the art had so far advanced by the use of the Pupin loading coils and other improvements, that a "loaded cable" for suburban service was successfully installed between New York and Newark.

By 1905 we had a "loaded cable" twenty miles long extending from New York in the direction of Philadelphia, and by 1906 a cable 90 miles long was successfully operated between those two cities, but in the then state of the art this cable could not be used beyond Philadelphia or New York.

By 1911 our experiments, researches, and improvements in manufacture had so advanced that we were enabled to design an underground cable, capable of giving a satisfactory conversation between Washington and Boston.

By 1912 a section of this new cable was laid from Washington to Philadelphia, there connecting with the earlier type of cable to New York.

During 1913 a section of the new cable was laid between New Haven and Providence, connecting at New Haven to an earlier type of cable extending to New York, and connecting at Providence to an earlier type extending to Boston.

While talking the entire distance from Boston to Washington was impossible through the old types, yet by using the underground in connection with the overhead the

seaboard cities from Washington to Boston could be no longer isolated by storms destroying the overhead wires.

During the year 1913 we have made such further advances in the art of loading and balancing underground circuits, and have so greatly improved the intermediate apparatus, that it is now possible to talk satisfactorily by underground wires from Boston to Washington, in part through types of cable formerly suitable for short haul distances only. These short haul cables make up 47 per cent. of the total cable in the line.

In 1912 talking underground for the first time between New York and Washington represented the longest distance underground yet achieved. By 1913, this distance had been doubled. The Boston-Washington telephone cable is several times longer than any other in the world.

It is difficult to estimate the far-reaching importance of these researches and it is too early to forecast the benefits to be derived from them. Enough has been already ascertained, however, to show that they tend to greatly increase the long-distance traffic and to accomplish enormous savings in the amounts of copper wire which would otherwise be required to establish communication between remote points.

An exhaustive study of the New York-Denver line during the last year has shown that these improvements in transmission through underground wires are also applicable to overhead lines. Plans are now making for the rearrangement of the New York-Denver circuit; when accomplished, the telephone transmission between New York and Denver will be equal to that now given between points about 200 miles apart and will insure satisfactory talk from the Atlantic to the Pacific and in due course bring all points in the United States within speaking distance of each other.

In every other department of telephone development the work of the general engineering staff has been continuous and equally fruitful.

During the period of twenty-five years practically all of the switchboards have been changed several times. Millions of dollars have been spent on inventions and experimental development. We have designed, manufactured and installed all kinds of switchboards—automatic, semi-automatic and manual—and we have exhaustively studied the practical workings of every type of switchboard in use.

It has frequently been asserted that the Bell System did not employ automatic switchboards because of patents controlled by others. The Bell Company owns or has rights in every United States patent and patent application which would be necessary to operate its system upon the so-called automatic plan—which is not automatic for the subscriber as the subscriber does all the manipulation in the making of a connection. As yet it has not been demonstrated that the automatic system would give as good and dependable service as we now render to the public, when used in connection with the extensive and comprehensive suburban and interurban telephone system of the Bell.

At the beginning of the telephone industry there was no art of electrical engineering nor was there any school or university conferring the degree of electrical engineer. Notwithstanding this, the general engineering staff was soon organized, calling to their aid some of the most distinguished professors of science in our universities.

As problems became more formidable and increased in number and complexity, the engineering and scientific staff was increased in size and in its specialization, so that we now have working at headquarters on the problems of the associated companies 550 engineers and scientists carefully selected with due regard to the practical as well as the scientific nature of the problems encountered.

Among them are former professors and instructors of our universities, post graduate students and other graduates holding various engineering and scientific degrees from 70 different scientific schools and universities, 60 American and 10 foreign institutions of learning being represented.

No other telephone company, no government telephone administration in the world, has a staff and scientific equipment such as this.

The Bell Company recognizing at the outset that the problems of telephony would require for their solution the highest degree of scientific and engineering skill, has been foremost in the development of telephone engineering and in the encouragement of scientific research.

It can be said that this company has created the entire art of telephony and that almost without exception none of the important contributions to the art have been made by any government telephone administration or by any other telephone company either in this country or abroad.

LEGAL.

The work of the Legal Department includes not only the routine work incident to the business of the Company as an operating company, but also the rendition of service along legal lines to the associated companies. The department endeavors to keep advised upon all legal and collateral subjects which are of special interest to the associated companies, and to disseminate this information promptly and effectively. It has continued the issuance to the associated companies of periodical bulletins calling attention to current decisions of the courts which may be of value. It issues in book form the telephone and telegraph cases decided by commissions and a compilation of the statutory law relating to telephone and telegraph companies.

The department further co-operates with the legal departments of the associated companies in disposing of their questions of a general character, so as to aid in their solution along sound lines harmonizing with the general policy of the system.

In addition to the Interstate Commerce Commission, there are now commissions exercising jurisdiction over telephone companies in forty States. The jurisdiction of these commissions embraces many questions of the utmost importance, especially in connection with rates, service and the issuance of securities. Generally, the commissions have welcomed the effort of the Company to aid them in determining these questions along lines which tend toward efficiency and an extension of the service upon a fair basis.

The investigation by the Interstate Commerce Commission, instituted at the suggestion of the then Attorney General of the United States, Honorable George W. Wickersham, and referred to in last year's report, has been commenced. The Company is affording to the commission every facility for making this investigation complete and exhaustive.

The amount of pending litigation is relatively small. The suit brought by The Western Union Telegraph Company and some of its associated companies has been finally determined adversely to the Company, and the decree against the Company has been satisfied.

The United States has instituted a suit in the United States District Court in Portland, Oregon, charging that certain local transactions in which The Pacific Telephone and Telegraph Company and The Mountain States Telephone and Telegraph Company were most directly concerned, were in violation of the Sherman anti-trust law. The Company has aided the government in expediting

this case. The testimony in chief for the government has been completed, and the taking of testimony in behalf of the defendants has commenced. *We wish to call attention to the fact that the suit is purely local, being confined to a few local transactions in the States of California, Washington, Oregon and Montana. It is not believed that its decision can in any event seriously affect the interests of the Company.*

Early in the year, William A. Read & Co. brought an action in Chicago involving the relations between this Company and the Central Union Telephone Company. It was impossible to adjust this matter upon any reasonable basis and it seemed that the ultimate outcome would render a reorganization of the Central Union Telephone Company necessary. The Company therefore consented to the appointment of receivers, and the court has appointed capable men who are now taking charge of the property and will operate it, pending the suit.

The Supreme Court of California has sustained the contention of the Company upon an important question, in a recent holding by it that there is not power to order a physical connection except upon provision for compensation for the use of the property of this Company which such a connection involves.

We were advised during the year 1913 that criticism had been directed against the Bell System with respect to certain matters which were national in their scope. We therefore entered into negotiations with the Attorney General of the United States for the purpose of adjusting such matters to meet the views and wishes of the Federal Administration. After a series of interviews and negotiations, all of the suggestions of the Attorney General were accepted by the Directors of the American Telephone and Telegraph Company, and the following correspon-

dence is here printed in order to show the attitude of the Administration and of the American Telephone and Telegraph Company:

December 19, 1913.

THE ATTORNEY GENERAL,
Washington, D. C.

SIR:

Wishing to put their affairs beyond fair criticism, and in compliance with your suggestions formulated as a result of a number of interviews between us during the last sixty days, the American Telephone and Telegraph Company, and the other companies in what is known as the Bell System, have determined upon the following course of action:

First. The American Telephone and Telegraph Company will dispose promptly of its entire holdings of stock of the Western Union Telegraph Company in such way that the control and management of the latter will be entirely independent of the former, and of any other company in the Bell System.

Second. Neither the American Telephone and Telegraph Company nor any other company in the Bell System will hereafter acquire, directly or indirectly, through purchase of its physical property or of its securities or otherwise, dominion or control over any other telephone company owning, controlling, or operating any exchange or line which is or may be operated in competition with any exchange or line included in the Bell System, or which constitutes or may constitute a link or portion of any system so operated or which may be so operated in competition with any exchange or line included in the Bell System.

Provided, however, that where control of the properties or securities of any other telephone company heretofore has been acquired and is now held by or in the interest of any company in the Bell System and no physical union or consolidation has been effected, or where binding obligations for the acquisition of the properties or securities of any other telephone company heretofore have been entered into by or in the interest of any company in the Bell System and no physical union or con-

solidation has been effected, the question as to the course to be pursued in such cases will be submitted to your Department and to the Interstate Commerce Commission for such advice and directions, if any, as either may think proper to give, due regard being had to public convenience and to the rulings of the local tribunals.

Third. Arrangements will be made promptly under which all other telephone companies may secure for their subscribers toll service over the lines of the companies in the Bell System in the ways and under the conditions following:

(1) Where an independent company desires connection with the toll lines of the Bell System it may secure such connection by supplying standard trunk lines between its exchanges and the toll board of the nearest exchange of the Bell operating company.

(2) When the physical connection has been made by means of standard trunk lines, the employees of the Bell System will make the toll line connections desired, but in order to render efficient service it will be necessary that the entire toll circuit involved in establishing the connection shall be operated by, and under the control of, the employees of the Bell System.

(3) Under the conditions outlined above, any subscriber of any independent company will be given connection with any subscriber of any company in the Bell System, or with any subscriber of any independent company with which the Bell System is connected, who is served by an exchange which is more than fifty miles distant from the exchange in which the call originates.

(4) The subscribers of the independent company having toll connections described above, shall pay for such connections the regular toll charge of the Bell Company, and in addition thereto, except as hereinafter provided, a connection charge of ten cents for each message which originates on its lines and is carried, in whole or in part, over the lines of the Bell System.

The charges incident to such service shall be made by the Bell Company against the independent company whose subscriber makes the call, and such charges shall be accepted by the independent company as legal and just claims.

(5) Under this arrangement the lines of the Bell System shall be used for the entire distance between the two exchanges thus connected, provided the Bell System has lines connecting the two exchanges. Where the Bell System has no such lines, arrangements can be made for connecting the lines of the Bell System with the lines of some independent company in order to make up the circuit, but such connections will not be made where the Bell System has a through circuit between the two exchanges.

(6) Any business of the kind commonly known and described as "long lines" business offered for transmission over the lines of the American Telephone and Telegraph Company shall be accepted for any distance, that is, on such "long lines" business calls shall be accepted where the point of destination is less than fifty miles from the exchange where the call originates as well as where the point of destination is greater than fifty miles therefrom.

(7) Any business of the kind commonly known and described as "long lines" business offered for transmission over the lines of the American Telephone and Telegraph Company shall be accepted at the regular toll rate and no connecting charge shall be required. But such calls shall be handled under the same operating rules and conditions as apply to calls over the local toll lines.

Very respectfully yours,

AMERICAN TELEPHONE AND TELEGRAPH COMPANY,

By N. C. KINGSBURY,

Vice President.

OFFICE OF THE ATTORNEY GENERAL,

WASHINGTON, D. C., December 19, 1913.

MR. N. C. KINGSBURY, *Vice President.*

American Telephone and Telegraph Company,

15 Dey Street, New York City.

DEAR SIR:

Permit me to acknowledge, with expressions of appreciation, your letter of December 19, outlining the course of action

which the telephone companies composing the Bell System obligate themselves to follow in the future.

Your frank negotiations in respect of these matters compel the belief that what you propose will be carried out in good faith; and it seems to me clear that such action on your part will establish conditions under which there will be full opportunity throughout the country for competition in the transmission of intelligence by wire.

May I take this occasion to say that the Administration earnestly desires to co-operate with and to promote all business conducted in harmony with law; and that, without abating the insistence that the statutes must be obeyed, it will always welcome opportunity to aid in bringing about whatever adjustments are necessary for the re-establishment of lawful conditions without litigation.

Very truly yours,

J. C. McREYNOLDS,
Attorney General.

THE WHITE HOUSE,
WASHINGTON, D. C., December 19, 1913.

MY DEAR MR. ATTORNEY GENERAL:

Thank you for letting me see the letter from the American Telephone and Telegraph Company. It is very gratifying that the company should thus volunteer to adjust its business to the conditions of competition.

I gain the impression more and more from week to week that the business men of the country are sincerely desirous of conforming with the law, and it is very gratifying indeed to have occasion, as in this instance, to deal with them in complete frankness and to be able to show them that all that we desire is an opportunity to co-operate with them. So long as we are dealt with in this spirit we can help to build up the business of the country upon sound and permanent lines.

Cordially and sincerely yours,

WOODROW WILSON.

HON. JAMES C. McREYNOLDS,
The Attorney General.

GOVERNMENT OWNERSHIP AND OPERATION.

The report for 1911 contains the following declarations:

"We believe that our Company has a most vital interest in, and that our future success and prosperity depend upon the working out of the telephone and telegraph problem in a way that meets with the approval of the public as a whole."

"We believe that we are working this problem out on the broad lines of the greatest benefit to the public. . . ."

"As a corollary to this—we recognize a 'responsibility' and 'accountability' to the public on our part, which is something different from and something more than the obligation of other public service companies not so closely interwoven with the daily life of the whole community."

That we have followed our declarations and fully recognized these obligations is evidenced by the fact that the Bell System has for efficiency, progressiveness, improvement and development become the standard for the whole world. The policy upon which it has been developed and the results accomplished are the strongest reasons put forth for government operation, and the only ones except those debatable ones of the superiority of government efficiency and economy of operation.

Our opposition to Government operation and ownership is not based on pecuniary, partisan, prejudiced or personal reasons. It is because of our interest in the up-building of a great public utility and its preservation. Our declaration quoted above is as much part of our policy as is the making of our dividends. We feel our obligation to the general public as strongly as to our investing public or to our own personal interests.

We believe that the efficient operation of every utility is necessary to the public, and we do not believe that any service efficient, progressive and permanent can be given by companies not making fair profits. No community can afford to be served by unprofitable or bankrupt com-

panies which are bound to give inefficient, unprogressive service.

Prosperity follows trade and trade follows the line of least resistance. Efficient facilities have more to do with serving trade than any other single factor.

We are opposed to government ownership not on account of our property for we know that our property cannot be confiscated, and cannot be taken except for its just value.

We know that if our property is ever taken by the government it will be found to be in the very best possible condition of that of a going concern, and that any valuation, that will stand, will yield much more than the present market value of our shares.

We are opposed to government ownership because we know that no government-owned telephone system in the world is giving as *cheap* and *efficient* service as the American public is getting from all its telephone companies. We do not believe that our Government would be any exception to the rule.

GOVERNMENT PURCHASE.

The public has been much interested, and the shareholders in telephone and telegraph properties much concerned, about a report said to have been submitted to Congress by the Postmaster General, advocating and recommending the acquisition by the government of the wire systems of the United States.

This common impression is wrong. The Postmaster General has made no report or recommendation. A special committee of Post Office officials, designated by the Postmaster General for the purpose of gathering information, had prepared some more or less relevant material. Upon a request from the Senate for the information that had been collected, the Postmaster General forwarded the findings of this committee *without comment*.

It is not a departmental report; it is merely the personal conclusions of three minor officials of the Post Office Department.

The statistics and statements of fact are much the same as, and appear to have been collated in connection with, those gathered by the advocates of government ownership in Congress. Because of errors in their compilation and failure to take into account materially dissimilar conditions affecting comparisons, these statistics have little or no real value; and because of their many mistaken and misleading statements, conclusions predicated upon them are erroneous and misleading and necessarily unsafe. This criticism would have been unnecessary had more care been used in gathering the information, situations more analogous to each other been selected for comparison, and a little scrutiny been given to the sources.

It is interesting to note, however, that the investigators reached the conclusion that the telephone and telegraph business should constitute one system, using the wires in common—that the services were complementary. This was the contention of the Bell System, and the policy which it was attempting to carry out.

The report says:

“Unquestionably from the engineering viewpoint the attitude of the Bell Companies is proper, for it is very necessary in the interest of the most efficient service that the entire telephone network be under one management.”

“The study of this subject has disclosed that the telegraph and telephone systems of the country are so inextricably *allied* that any consideration of one must necessarily include the other.”

The introduction of bills for government ownership and operation is far from its accomplishment; this has been repeatedly done for many years past, some of them strongly favored by the heads of the Post Office Depart-

ment. If the government takes over any utility it will only be done after thorough consideration and examination and prolonged discussion, and if determined upon, *there is not at all likely to be either confiscation or destruction of existing systems.*

The recommendation of one of the advocates of government ownership to take over the telephone toll and long-distance lines, equip them for telegraph purposes and enter into a destructive competition with the existing telegraph companies for the purpose of destroying their market value and enabling the government to purchase at a low price, is so utterly at variance with any possible standard of public or private or commercial honor that it would seem as if the very suggestion would be repudiated.

SHAREHOLDERS SHOULD NOT BE INDUCED TO PART WITH
THEIR HOLDINGS.

The proprietors of the American Telephone and Telegraph Company should rest quietly and not be scared or frightened into sacrifices of their securities.

Whether government purchase be ultimately decided upon or not the property is well worth more than the market price of its securities. This is not mere assertion, it is an established fact. Friendly and unfriendly appraisals of the various properties have been made; in no instance has the appraised value been placed below the book value, while in most instances it has been placed in excess.

This excess in value will continue so long as public utilities are allowed to earn fair returns on the value of their property or on their investments. The present distribution of profits by the American Telephone and Telegraph Company and associated companies averaging 6.05% on the par of their outstanding securities or less than 5% on the book value of their property (which as

above stated is less than the actual value) cannot be criticised as unreasonably high.

The charge is freely made that the stock of the American Telephone and Telegraph Company is watered. In another part of this report it is shown that "for the \$344,-616,300 capital stock, \$369,136,414 has been paid into the treasury of the Company." Mr. Lewis, the principal Congressional advocate of government ownership, frankly says:

"Be it said for the Bell System that it is the one great corporation in our country that has not issued tons of counterfeit capital. Its stock and bonds today represent the actual contributions of its shareholders in money to a great common enterprise, and we will not have that unfortunate circumstance to deal with in the valuation of their properties."

RIGHTS OF PROPERTY OWNERS.

Those advocating government ownership say "that private claims or rights of owners (i.e. shareholders) of the existing systems *will not be allowed to stand in the way.*" It is neither contention nor resistance for the thousands of owners to claim "just compensation" based upon a fair valuation; the guaranteed rights of all give them that protection. Just compensation means that it must be "just" and represent full value of the property; this contention is very clearly upheld in the following extract from a United States Supreme Court decision in a case where it was claimed that just value meant full value of the property, including franchises:

"The language used in the 5th Amendment in respect to this matter is happily chosen. The entire amendment is a series of negations, denials of right or power in the government, the last, the one in point here, being 'Nor shall private property be taken for public use without just compensation.' The noun 'compensation,' standing by itself, carries the idea of

an equivalent. Thus we speak of damages by way of compensation, or compensatory damages, as distinguished from punitive or exemplary damages, the former being the equivalent for the injury done, and the latter imposed by way of punishment. So that if the adjective 'just' had been omitted, and the provision was simply that property should not be taken without compensation, the natural import of the language would be that the compensation should be the equivalent of the property. *And this is made emphatic by the adjective 'just.'* *There can, in view of the combination of those two words, be no doubt that the compensation must be a full and perfect equivalent for the property taken.* And this just compensation, it will be noticed, is for the property, and not to the owner. Every other clause in this 5th Amendment is personal. 'No person shall be held to answer for a capital, or otherwise infamous crime,' etc. Instead of continuing that form of statement, and saying that no person shall be deprived of his property without just compensation, the personal element is left out, and the 'just compensation' is to be a *full equivalent* for the property taken. This excludes the taking into account as an element in the compensation any supposed benefit that the owner may receive in common with all from the public uses to which his private property is appropriated, and leaves it to stand as a declaration *that no private property shall be appropriated to public uses unless a full and exact equivalent for it be returned to the owner."*

It is neither contention nor resistance to defend the properties against mistaken assertions, freely made, "that the plants are rubbish and the securities represent little value." Values are not to be determined that way, such assertions cannot change cold facts. Sixteen millions of miles of wire, mostly copper, on poles or in cables and underground ducts, with the station and central office equipment of nearly five and one-half millions of telephone exchange stations, all in good physical condition, are not rubbish and do represent value. The addition of over 460,000 telephone stations during the past year could not

have been made without expenditure, and represents legitimate increase, not inflation of capital.

The final adjudication of a lower value than claimed for the private telephone plant in Great Britain has no bearing on the value of the Bell System. The private companies of England were operated under a limited license; it was known years in advance that the licenses would not be renewed and that the government would purchase the plants. The government and the owners could not agree as to expenditures upon the plants to be made prior to the purchase to keep them in any up-to-date condition; consequently as little was done as possible. This was a period of rapid improvement in telephone exchange equipment. The outside plant was largely overhead on buildings. To make it modern the old equipment and plant had to be largely replaced. The companies were paid 100 per cent. on the investment.

An appraisal of our properties upon the basis of the English valuation would give a result largely in excess of our present outstanding capitalization.

GOVERNMENT OWNERSHIP AND OPERATION: IS IT TO BE SELF-SUPPORTING?

Should government operation be self-sustaining in its full significance, entirely maintained and operated out of its own revenue, or should such properties be operated at a charge on general revenue at the cost of the whole public for the benefit of a part? Should they be regulated as to *efficiency* and *sufficiency* as private utilities are regulated, or should each department or utility regulate itself? If utilities are to be subsidized, that is, maintained entirely or in part out of public revenue for the benefit of the users, then the tendency toward government ownership is strong. There may be some things which should be made free and convenient for the whole public even at the expense of the

public revenues, but the telegraph and telephone are not of them.

The power or right of the Government to own and operate utilities need not be discussed. If such power is to be exercised it becomes of the greatest importance that a right decision, based on an exhaustive study, and a thorough understanding of facts, conditions and possible results, should be reached.

The greatest embarrassment in dealing with many public or quasi-public questions is the difficulty of establishing a clear understanding unaffected by prejudice or partisanship; of offsetting erroneous impressions, created by mistaken or misleading statements and disputable and controvertible statistics, particularly when such statements are made by those who have the public ear.

Dickens said, when a parliamentary reporter: "Night after night I record predictions that never come true, professions that are never fulfilled, explanations that are only meant to mystify." It was so then, is now and probably ever will be the same.

GOVERNMENT-OPERATED TELEPHONE AND TELEGRAPH SYSTEMS.

A thorough study of all available reports and official information on the operations of government-owned and operated telephones and telegraphs shows that while in some countries the post office proper pays a revenue, the combined telegraph and telephone are without exception operated at a deficit. Every telephone system in the world adopts the Bell System as a standard, uses the Bell operating methods and either uses the Bell apparatus or copies it; yet there is not one that gives an approximation to the facilities that the Bell System gives the public, or gives as good or as cheap

service on the same basis of accounting, franchise conditions, and wages paid.

In England where the Post Office pays a very handsome net revenue, its telegraphs show a relatively much larger deficit, while the revenues and ordinary expenses of the telephone operations show a small balance, excluding, however, depreciation and obsolescence which have not yet become fully determined but which cannot be ignored.

These deficits are not the result of a definite policy to give a cheap service to individuals at the cost of all, but are due to errors in management such as under-estimates of values and cost of new construction; disregard of maintenance, depreciation and particularly of obsolescence; impossible theories of operation, and a mistaken policy founded on promises, prophecies and assertions exactly the same in character as those now being used to bring about government ownership in this country, and upon a failure to understand and appreciate the advantages of private as distinguished from government organization. The fallacies urged in Parliament to induce the government acquisition of the British telegraph system years ago are the arguments used by the advocates of government ownership and operation today.

FUNCTIONS OF GOVERNMENT.

The functions of government and the causes of its being are "*Control*" and "*Regulation*"—control of the individual and regulation of the community so far as is necessary to secure the enjoyment of life, liberty and happiness by all, and "control" or "regulation" of anything that might in any way become a menace to the social organization or to its individual members.

To the extent that anything is a necessity in its absolute sense to the enjoyment of life and health—the absence of which would endanger the community as a whole—it is a

proper function of the government either to provide it or to see that it is so provided as to bring it within the reach of every individual member of society; even to provide it for all at the cost of the general revenue.

To the extent that anything of a utilitarian nature is adopted by or assimilated into the habits of the public and contributes to their comfort, convenience, or even generally to their profit, it should become an object of *sufficient government regulation to prevent the public convenience being made the cause of private exaction*; the distinction between what should be furnished in whole or in part by the government and what should be regulated by the government being whether *the necessity is absolute* and the thing indispensable to the life, health and well-being of the individual and consequently of the community, or whether it be something contributing to or even important, but not indispensable, to the comfort, convenience and profit of the community or of the individual.

A sufficient supply of potable water available to all is a necessity. The street-car, the electric light, the telephone or telegraph are conveniences of the highest importance but are not necessities in the foregoing sense.

The control, and later the operation, of the mails and posts, for the interchange and dissemination of intelligence—letters, books, periodicals—have by general acceptance become a proper governmental function. The conveyance of packages and parcels has by custom been included with the mails.

GOVERNMENT OPERATION VS. GOVERNMENT REGULATION.

The step from government control and regulation to government ownership and operation is radical and fundamental; one which absolutely changes the character of government organization and functions. In this

country there is no organization or function of the government that in any sense approaches ownership or operation in the real, large way.

There are no sound reasons given or real advantages promised for government ownership and operation which do not apply to or cannot be secured by government regulation. Most of the "advantages" promised and arguments used are purely hypothetical, theoretical and uncertain; they are not vindicated by the experience either of this or of any other country.

Governments have in the past taken over or constructed and operated all kinds of utilities where political, national or strategic exigency made it necessary. Such operations, other than those to meet national crises, have properly been confined, wholly or in part, to such as were of a national character and where the risks and uncertainties or magnitude placed such operations beyond private initiative, enterprise and capital.

There is, however, no reason for government ownership and operation where private initiative and enterprise are not only competent to develop, but have actually developed, these utilities to the fullest extent. The government never has taken the initiative in the introduction of any new and untried utilities, nor any interest in them except so far as it has encouraged their development in private hands through the provisions of the "patent," "copyright" and "trademark" laws; and there is no reason why it should unless such utilities have become of such general use that their regulation is necessary.

The general stock arguments put forth for government ownership and operation are:

- Extension of benefits to a larger public;
- Abolition of selfish exploitation;
- Control of monopoly;

Pecuniary advantages to the public through lower cost and consequently lower charges;

Greater efficiency;

Saving to general public rewards of private initiative.

SELFISH EXPLOITATION.

Private enterprise is rightly said to be based on personal interest. There is no doubt as to this, but incentive to achievement along individual lines could not be suppressed without great detriment to the community at large. What would be the result if government restrictions reduced the reward or profit on initiative and enterprise to that of certain and secure business ventures? Where would be the incentive to assume risk and uncertainty, or the larger profit necessary to recoup the individual and the community for the unsuccessful ventures?

The pecuniary reward to those who take the initiative and the risks of new enterprises must correspond to the labor and to the risk, but this reward cannot exceed the advantage to the public using the service, for the user must get in service, in some way at least, the equivalent of its cost to him. Private initiative, invention, enterprise, risk, spurred on by the incentive of reward, have changed the face of the world, and the resulting unearned increment largely constitutes the wealth of nations; without it many of the great scientific industrial developments would have remained scientific curiosities, even if they had been evolved at all.

MONOPOLY.

The general tendency in this country is to the "one system" idea of public utilities under regulation. Everyone knows the evil of duplication, no one wants two gas,

water or electric lighting systems, and there is a general acquiescence in the "single system" in each community. In no one of the utilities except the telephone, and the street-cars to a slight degree but for a very different cause, does the fact whether A, B or C residing in the same community is on the same or different "systems" make the slightest difference as to service, nor does it matter whether systems in different communities are connected or not.

With the telephone exchange the question of those connected is vital; your service depends upon one system connecting all telephone subscribers in the same community and upon all communities being connected with each other.

A telegraph system reaching all telegraphic points avoids physical transfers from one system to another, with the incidental delays and obstructions to good service.

Telephone and telegraph systems operated under common control can avoid duplication by making use of the same wires.

For practicability of management, economy of operation or efficiency of service there should be one combined telephone and telegraph system. This has been the Bell contention and this is the conclusion reached by the Post Office committee and by Congressional advocates of government ownership, who say in substance that the *telephone and telegraph should constitute one system and that a monopoly.*

Government regulation can effectually curb "monopoly" and "selfish exploitation" and make them useful without destroying them, by subordinating them to the public for the public advantage. Government ownership and operation would destroy individual initiative; they

would create monopoly and increase and strengthen its evils by placing it in the control of officials and servants, responsible only to themselves as a political party, and parts of the organization which made or unmade the chief executives.

OPERATION AND REGULATION.

Operation, economical and efficient, requires high organization continuously maintained, superior methods and efficient service. There must be supervision by able executives assisted by experts, all of long experience as executives as well as in the particular industry. They must have large discretionary powers, assume responsibility, and have undisputed directive authority over subordinates. It is purely administrative and executive in its nature.

There is a very narrow margin between efficient, economical operation and waste. It is possible to have efficiency accompanied by waste, but never possible to have efficiency without responsible organization and the individual initiative, watchfulness and continuing interest which only accompany permanency and expectation of reward.

Regulation is in the nature of a review, consideration, determination. It is judicial and advisory, not administrative or executive; a commission of regulation is analogous to a board of direction representing the public as well as the corporation, having no other object than the conservation and protection of the interests of all.

Operation is a methodical action upon lines of a determined policy, requiring expert knowledge, experience, training, and individual interest.

Regulation is common-sense, intelligent review and decision, based on presentation and examination of facts and conditions.

GOVERNMENT OPERATION AND EFFICIENCY.

Theoretically there may be no reason why government operation should not be as economical and efficient as private operation, but actual constructive performance runs up against actual conditions and tangible difficulties which only experience shows how, and responsibility develops the ability, to deal with.

Departmental officers taken from walks of life affording neither experience nor knowledge of the duties and responsibilities they are to assume, are expected to perform the various duties of their departments and also to incidentally look after their political obligations. As a rule their training better fits them for advocates than for executives, for judicial positions or as commissioners of regulation than directors of operation.

Every new head of a department is of necessity a reformer; his average incumbency is less than four years; there is seldom any continuity of departmental policy, and never any continuity of departmental staff. The important assistants come and go with the head. A review of the operations of his department shows much that could be changed to advantage; to eliminate all that is unsatisfactory and bring about effective results under the conditions and in the time available is impossible for the ablest. He starts in finding an incomplete attempt at accomplishment along a certain line of policy, and goes out leaving an uncompleted attempt along a different line of policy. The inevitable tendency is towards promise, not performance.

The departments are run by the minor officials and the clerical force who under ordinary conditions are permanent. The officials have no responsibility in the selection of and little directive control over their subordinates. There is a premium on that *finished mediocrity* which leaves much to be desired and furnishes nothing upon which to

base effective reprimand, enforce discipline, or cause for removal. Lack of responsibility is a handicap in the development of men; lack of accountability is a handicap on thorough efficiency; lack of opportunity is a handicap on initiative and enterprise.

A full average of the minor heads and clerks would normally have capacity, initiative, enterprise and ambition. If any one of them develops extraordinary efficiency, initiative or enterprise, he is either elbowed out of the way as disturbing the quiet, complacent habitude of the organization, or, if sufficiently masterful, develops to a point where he can go no farther, and is soon taken up by outside organizations. The higher positions, honorable as they may be, are not sufficiently compensated and do not afford the permanent and remunerative positions to be had in private enterprises for similar occupations and ability.

In European countries, where even the minor office-holders and government employees have a certain official distinction which also attaches to their families, there is something higher than the mere remuneration, something that does not attach to private occupation, and is not attached to government subordinate positions in this country.

Government administration is more or less a game of politics, and while with government operation it may sometimes be possible to have efficiency, it will always be impossible to have economy.

COMPARISONS BETWEEN THE UNITED STATES AND EUROPEAN TELEPHONE AND TELEGRAPH SITUATION.

Opposed to actual conditions and experience, statistics, theories, promises, prophecies go for naught, no matter how carefully they have been prepared or thought out or how strong and good the faith and intentions.

There is government operation on a large scale in Europe. In the larger states of Europe commercial conditions are more similar to those of the United States than elsewhere; in Great Britain, particularly, racial, commercial and social characteristics are more in common. Why New Zealand experience should be put forth so prominently as a reason for government operation is difficult to understand. It is a fringe of people on a narrow circumference of the islands. It is a country of recent settlement and many social experiments. It has one-thirtieth the area and one-hundredth the population and a debt already equal to one-third of that of the United States. If the so-called advantages of government operation are the cause of the debt, the United States wants none of it.

The government-owned European telephone plants, notwithstanding the low price of foreign labor, are carried at a much higher cost than those of the Bell System and yet every one of them uses the Bell System as a model. The book value of the plant of the Bell System *per station* is less than 60 per cent. that of Belgium; less than 75 per cent. that of Austria; about 85 per cent. that of Germany, Great Britain and Switzerland; and all of them government-owned.

The capital account of the Post Office telegraph system of Great Britain, upon which interest is charged against telegraph revenue, is about \$54,000,000. The amount admitted to have been spent in the plant is about \$85,000,000. The admitted cost of the Post Office telegraph, including deficits in operation but without interest on such deficits, is about \$150,000,000.

The mileage of telegraph wires is a little under 320,000 miles. Based on interest-paying capital, the cost per mile of wire is \$167; on actual cost of the plant, \$267. The

Western Union carries its plant at \$98 per mile of wire. The telegraph plants of the world, mostly government-owned and operated except in the United States and Canada, are estimated at \$130 per mile of wire.

One reason given for higher cost per mile of wire in Europe was the cost of copper wire. The day this was written copper was the same price "spot cash" in Paris that it was "thirty days" in New York, a difference of about seven cents per one hundred pounds.

It is also stated that telephone rates are higher in the United States.

The policy of the Bell System is that the value of a telephone service is in direct proportion to its "universality" and "dependability;" that is, to the certainty of reaching promptly by telephone the greatest number of people. *This policy, which has been the strength of the Bell System and the cause of whatever supremacy in the telephone field it has, is now being made the strongest argument for government ownership and operation, ignoring the fact that the Bell System has extended or popularized its service to an extent far beyond that of any government system in the world.*

The Bell System makes rates for such kinds or classes of service as may be desired by, and will be acceptable to, each and every possible user. In this way it has made it possible for, and to the advantage of, every person to be connected with the exchange system who would add to the value of the service to others. The government could not do more even by giving free service.

There are higher individual rates for larger individual service in the United States than in other countries, but there are relatively much larger individual users of the service. There are also rates as low as or lower than in other countries. There is every economic reason why

large users of the telephone in their own business and for their own profit should pay for service according to use. If this policy is to be abandoned, low rates cannot be made for the small user.

The soundness of any policy, the "efficiency" and "sufficiency" and the reasonableness of charges for the use of any utility, are ultimately determined by the degree of its adoption by the public. In the United States there are 9.7 stations to each 100 population, more than double that of any other country, nearly six times that of Great Britain, over thirteen times that of France, more than four times that of Switzerland. There are nearly 2,500,000 telephones in rural habitations in the United States, nearly one to every two strictly rural habitations. It is probable that more houses are connected by telephone in the United States than are reached by rural delivery. The telephone goes to the house; the rural free delivery only to the nearest crossroads for a good proportion of the houses.

NOTE: The rural habitation of the United States Census includes villages of less than 2,500 population. The rural habitation in the telephone sense means segregated houses only.

That the Bell rates as a whole are reasonable and not excessive and are as popular as the rates of any government-owned plants is also shown by the telephone exchange revenue per station, which in the United States is but \$30.45 against \$32.63 for Great Britain.

The average wages paid to the Bell operators are double the lowest and about equal to the highest rates paid by those in Europe.

The following is an extract from the report of the Postmaster General of Great Britain:

"Telephones. The telephone revenue for the year *including the value of the service rendered to other departments [i.e., constructive revenue. Italics ours]* was £5,785,701, an increase

of £2,822,965. The telephone expenditure including payments in redemption of capital was £5,395,627, an increase of £2,652,987. The balance was £390,074."

The Bell System paid in taxes, over \$11,000,000, 5% of the gross revenue in 1913. If the English government telephone had paid this, it would have reduced the so-called surplus to £100,000. No allowance is made for depreciation and obsolescence which in itself is a large percentage of operating costs in the telephone operation and must come out of revenue or out of plant.

It is claimed that telephone toll and long-distance charges of the Bell System are excessive as compared with government-owned plants of Europe. This is not the fact if the service given is considered. The *charge* for the *immediate* service which is the ordinary service given by the Bell System is higher than for the *ordinary* service, which is a *deferred* service, given by those systems, but it is not higher than their charge for *immediate service*; where *immediate* service is given, if at all, it is from two to three times that for ordinary.

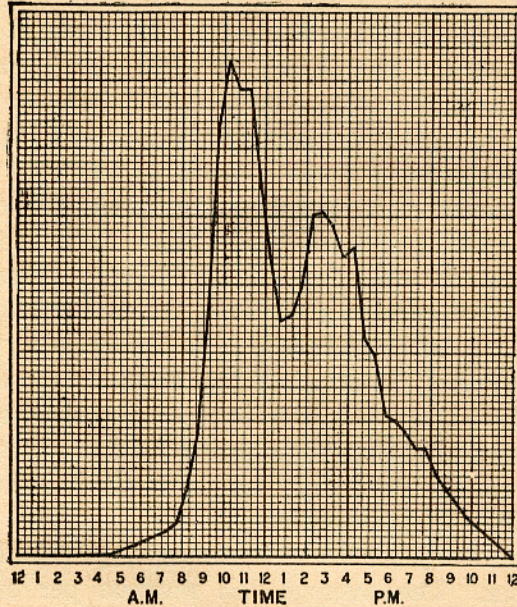
The use of any service determines its profitable value to the user. The average toll revenue per exchange station of the Bell System is \$11.35; that of the British system is \$6.46.

The possible use of toll lines based upon the number of minutes in the twenty-four hours is used as an argument for reduction in rates. Comparison is also made between toll-line and freight ton-mile rates. Telephone service is congested in the active hours of the day, and is very irregular. There are rush hours, and peaks of load. The telephone conversation requires the exclusive use of the telephone circuit for the time of conversation.

A telephone circuit from New York to Chicago costs \$250,000. If it were used every five-minute interval of the ten active hours of the day, there could be only 120

conversations. As a matter of fact, it is not in use one-third of those intervals. (See chart.)

TYPICAL LONG-DISTANCE TRAFFIC RECORD



On a railroad from New York to Chicago trains of passengers and freight follow in rapid succession. What would freight or passenger rates be if only one train could be upon the whole line at one time? Yet that would afford a more proper basis of comparison.

In the Bell System the toll and exchange service is immediate; that is, the customer is given service when he calls for it and not put on a waiting list and made to await his turn. Sufficient operating facilities are provided for all the *normal peaks* of load. The foreign government-owned plants used for comparison only provide facilities

for the *average* load. Customers must await their turn, which during certain times of the day means hours, not minutes. *Such deferred service, causing an even and continuous load during active hours, more than quadruples the possible service which can be given by operators and plant.*

Deferred service bears to profitable operation of the telephone the relation of the "strap-hanger" or "stander" to transportation service, but with this difference: the "strap-hanger" or "stander" is getting some return for his discomfort, he is getting to his destination, that is, accomplishing his object. The deferred-service telephone user while waiting is not getting anything or anywhere; he is sacrificing his time and possibly jeopardizing the purpose for which he wants the connection.

Even at the higher wages paid in this country a deferred or waiting telephone service, more satisfactory and more dependable than the foreign service, could be given at rates more or less equal to the foreign rates for such service, notwithstanding that the companies here must pay capital charges, including dividends, all administration expenses, taxes and other charges. Deferred service is not given because our public demands a better service.

That the service in Great Britain and elsewhere in Europe is vastly inferior to that of the Bell System is conceded almost without exception by both Americans and Europeans who have had an opportunity to make an intelligent comparison.

TELEGRAPH RATES.

The words in the address and signature are counted and charged for in Europe, and sent free in the United States. The wages paid operators in the United States are double those paid in Europe. If these differences are considered, the telegraph rates in Europe for *short distances*

are little, if any, less than in the United States, while for long distances the rates in Europe are decidedly higher.

In England, where the conditions are most favorable for telegraph operation, with its concentrated population and business, short distances and large traffic between centers, cheap labor, untaxed franchises and rights of way, and all the highly praised advantages of post office joint operation, the telegraph is operated at an acknowledged deficit.

Extract from the report of the Postmaster General of Great Britain, 1912-1913:

"Telegraphs. The telegraph revenue of the year *including the value of services rendered other departments* was £3,167,410 an increase of £19,705, and the telegraph expenditure including the interest on the capital £10,867,644 expended in the purchase of the telegraphs was £4,124,976, a decrease of £309,897 upon the previous year. The net deficit was thus £957,566 or £329,602 less than last year."

NOTE: Value of service rendered other departments is purely constructive revenue, *i.e.*, in other words, padding. Italics ours.

And the expenditure does not represent any charge upon something over £20,000,000 which has been expended on the telegraph service since its acquisition by the government.

The Western Union, to cover the widely extended territory of the United States, with distances seven or eight times as great as the distances in England, has to maintain, to do a little over twice the business, a wire mileage five times as great, and transmit its messages an average of four times the distance.

The Western Union pays taxes, maintains its plant out of revenue, pays double the wages to its employees, and pays dividends.

The acknowledged expenditure of the British telegraph of £4,125,000 as against a revenue of £3,170,000, a part of which is fictitious revenue, makes an admitted cost of four dollars for every three dollars of telegraph revenue. If to the acknowledged expense should be added interest on the £20,000,000 of non-recognized expenditure and the franchise and direct taxes lost to the public, the cost to the government for every message sent *was nearly twice what it received.*

These figures are official and can be verified from the various reports of the Postmaster General.

TELEPHONE RATES, COMPETITIVE AND NON-COMPETITIVE.

It is claimed by the advocates of government ownership that the Bell rates are excessive where there is no competition, and have been unduly raised after competition ceased.

Of 93 places of 10,000 population or over where opposition ceased prior to 1913, not including any places where the Bell exchanges were sold to the opposition, in 80 there was either no change in rates, no increase to be made within three years, or rates were decreased. Rates were increased in but 13 places.

It has been generally conceded by commissions of regulation that after the merger of two opposition exchanges higher rates were proper.

Competitive or opposition exchanges were built and rates fixed on the theory that the Bell rates were excessive. For a few years, while the plant was new, apparent profits were made on low rates, but after maintenance of old plant and reconstruction on account of depreciation and obsolescence had to be met, exchanges as a rule operating under competitive rates ceased paying divi-

dends and even interest, and many came to financial disaster. With the exception of a few limited exchanges in selected or favorable territory operated by the owners, no exchanges operating on so-called competitive rates are giving satisfactory results to their owners, and few if any but would like to liquidate if it could be done at not too great a loss.

The percentage of *reduction in rates* made because of the improvement in methods of operating and improvement of equipment and apparatus *was greater in Bell exchanges* which had *no opposition* than the reduction made in exchanges which *had opposition*.

Bell rates are generally higher than the opposition rates in places where there are opposition exchanges.

That the Bell rates are not excessive should be acknowledged, for as before stated the Bell companies as a whole are paying an average of but 6 per cent. on their outstanding securities and less than 5 per cent. on a conservative value of their property, and are paying to the communities in which they operate nearly \$11,000,000 in the way of local taxation.

THE CHICAGO & MILWAUKEE TELEGRAPH LINE.

THE TRUE STORY.

The Chicago & Milwaukee telegraph has been set up as an example of the evils of private operation. Why this single line of some fifty miles in length should have been selected is difficult to understand. Any line situated under such favorable conditions, doing business only between two large cities, should and could be operated at rates which could not apply to lines or systems which take business from and to all points, *while the peculiar conditions* under which this particular line operated put

it absolutely outside of comparison whether with other lines or with any system. The history of this company is well known, and if not known to those who have used it as an illustration, it could have been obtained with little effort.

Built in 1878 by some linemen as a speculation, it was sold to some members of the boards of trade of Chicago and Milwaukee and incorporated with a stock of \$50,000. *The business of this line was confined almost exclusively to messages from floor to floor of the two boards, to news service and to leasing private lines.* While it accepted other service, *it had no organization to, and did not, deliver or collect messages except by telephone.* The company apparently made large profits, but it must have been at the expense of maintenance and depreciation, for later on the company was reorganized with a capital stock of \$50,000 and \$50,000 of bonds, and the lines reconstructed. This new company operated until 1905, *when it went into receivership* and the lines were operated by the receiver until 1907, when it was offered for sale, and the Chicago and the Wisconsin Telephone Companies needing additional lines, purchased it in connection with the American Telephone and Telegraph Company, for toll and long-distance telephone business. This was five years before an interest in the Western Union was acquired or contemplated.

The lines are now used for telephone business principally. The commercial experience and history of this line are not such as make it a good argument for lower telegraph rates, either under private or government operation, and even under such favorable auspices its experience was certainly not such as would encourage private enterprise in another attempt although the field is open to all.

DEPARTMENTAL EFFICIENCY.

POST OFFICE AND ITS ORGANIZATION: IS IT ADAPTED TO
TAKE OVER THE TELEPHONE AND TELEGRAPH?

Can the same efficiency and economy be expected under government ownership?

Various committees—Congressional and departmental—have investigated the administration and operation of government departments in recent years. Without exception the reports found that the organization and administration of our national departments and bureaus and other various enterprises were extravagant, wasteful and inefficient. That there was duplication of effort and work not only between the different departments but between the different bureaus of the same department. That large economies in expenditures could be made, and greater efficiency could be had. This is not criticism from outside sources but from inside.

Is there anyone who doubts that if the Post Office department had the organization, the management that many of the large private industrials have, it would be possible to give at least the present efficiency and at a much less cost of operation?

The Post Office is not an organized operating entity. There is no organization such as characterizes a large industrial or commercial enterprise. It is made up of a large number of independent, separate assemblages, coordinated and made co-operative by certain rules and regulations. The duties are confined to collecting, assorting and distributing the mails from and to the public in localities, and dispatching them from post office to post office. The transportation and conveyance of the mails from and to and between post offices are by facilities owned and operated by private companies whose conveyance and transportation of the mails are but an incident to larger business. Even over the hours of dispatch or the

time of transit the department has either no, or at best a limited, control. The Post Office department has only to maintain a balance between appropriation and expenditure, none to maintain between revenue and expenditures, which constitutes the only check on waste and extravagance; it has no problems of finance, except to get appropriations; no concern about surplus revenues to meet taxes, interest charges, dividends. It has no plant and there is no provision to be made for inevitable maintenance, construction and re-construction and obsolescence out of revenue. There are no pension, sickness and disability provisions for its employees. The property, considering the size of its operations, is negligible in amount. There are no problems of organization methods and systems, no engineering and technical problems, none of the thousand and one problems and perplexities arising in the operation of a transportation system, compared with which the operation of the mail service is simplicity simplified.

As to the efficiency, the general consensus of expressed opinion is that there is much to be desired in the service.

When the night and the day letters were inaugurated by the Western Union, failure was prophesied, because an "over-night" mail reached or should reach fully 60% of the total population of the United States. Yet many millions of these telegraph letters are dispatched.

The success of the parcels post has been set up as a reason for the government operation of the telephone and telegraph. Why it should be is hard to understand. The two services have nothing in common and are in no way comparable.

The parcels post is not in any sense a new service; it has merely increased the volume of the mails by removing some limitations as to size and weight of packages mailed, and making some reduction in rates of postage for mer-

chandise. There has been no change in the organization or in the workings of the post office but merely an increase in the number and the work of the lower grade clerical force. There is no doubt that the parcel post is popular and meets some real demands based on real wants, but sufficient time has not elapsed and conditions have not been sufficiently adjusted to determine whether it will be profitable or whether the service will be entirely satisfactory in *certainty, security and promptness*.

There may be, as stated by the advocates of government operation who should know, 64,000 offices including branch offices and stations. The inference this statement carries is that 64,000 different places have post offices; but on July 1, 1913, according to the report of the Postmaster General, there were only 58,000 postmasters. There are about 58,000 places which have post offices, as against over 70,000 places reached by telephone toll lines of the Bell System. If we should count branch offices and pay stations the number would be largely increased. From most of these places telegrams can be sent *at all hours of the day or night*.

The postmasters of over 50,000 of these offices are paid a commission on the receipts, which amounts to an average of about \$285 per annum; this is their entire compensation, and is inclusive of office rent, heat, light and all services. Nearly everyone is familiar with this type of country offices, and can judge of the possibility of a general telegraph and telephone business receiving the attention absolutely necessary to an efficient service. It would not be a question of capacity; the experiment would be disastrous principally because the postmasters are not fitted by experience or training for the telegraph or telephone business, but also because it would be secondary to their grocery-drygoods-notion shop, their principal business. In the larger cities and towns, how many of the post offices, even in leased or government

buildings, have room for a telephone or telegraph office and for the necessary equipment?

MAKING TELEGRAPH OUT OF TELEPHONE LINES.

Upon whose estimate or experience is based the "negligible cost" of superimposing the telegraph on the telephone and equipping the circuits with telegraph instruments, and the taking over of the interurban and long-distance lines, divorcing them as to common control from the exchange system, putting them into these post offices, and equipping them to do all the telegraph business? It is impossible of performance at any cost. The interurban toll lines and the exchange trunk lines and their equipments are necessarily so interwoven and used so interchangeably that it would be next to impossible to segregate them. While it is perfectly feasible to use wires for both telephone and telegraph service, and either the telephone circuit or the telegraph circuit could be looped into any office, the arrangement and distribution of the lines for both purposes must be under common control, and that the telephone. The manipulation of the lines is a telephonic proposition, not a telegraphic. The only practicable way for the Post Office to use the telephone lines for telegraphic service would be to lease the telegraph rights, much as the Post Office Department now uses the railroad facilities for the mails. No other separated operation or control of the same wires for telegraph and telephone services would be practicable from either standpoint.

WESTERN UNION.

Under the understanding with the Department of Justice this Company's holdings of the Western Union stock had to be disposed of. While that company was in good condition and would undoubtedly increase its dividend to 4% for the current year, yet the agitation for government ownership and competition made a very

unfavorable market which would not improve so long as there was some \$30,000,000 of stock to be distributed and absorbed. Under all conditions the price obtained, \$60 per share, was good, and was fully as much as it was thought it would be possible to obtain during any period likely to be allowed for its disposal.

The loss to the Company is considerable, but the public has been greatly benefited by the connection. In order to make the fact of the absolute disposal of the stock beyond question by an extended distribution, and also to give to the Western Union shareholders the opportunity of acquiring it, the sale was conditioned upon its being offered to the other shareholders and to the employees of the Western Union. The Company would have made this offer direct but by so doing it would have taken the chances of a large part not being taken, in which case it would have been impossible for the Company to make any favorable sale of the balance. The outright purchase and the distribution proposed established a price and removed the other depressing influences from the market.

The connection between the two systems has been conducted on lines of complementary service, each having its distinct office and service to perform, and its distinct organization.

There has been no intermingling of plant. The operation of each company was distinct and the change of ownership of the shares should in no way affect the service or the business of either company.

The American Telephone and Telegraph Company ceases its connection with the Western Union after three years association. During this period as compared with the previous three years the gross revenue of the Western Union increased 45 per cent. Wages to operators, not including cable construction, reconstruction or maintenance wages, were increased 55 per cent.; there was set aside for renovation and reconstruction out of revenue

during that period nearly \$9,000,000 in excess of the normal expenditures for these purposes; of this sum nearly \$2,500,000 could have been and from now on under the new interstate regulation will have to be charged to construction. These abnormal expenditures, it may be reasonably expected, will be completed in less than three years, when the revenues of the company now being expended for those purposes will be available for other use.

The suit of the Western Union and associated companies against the American Telephone and Telegraph Company on the interpretation of the 1879 contract, which has been pending thirty years and which was originally decided in favor of the American Telephone and Telegraph Company, has been finally settled largely according to the contentions of the Western Union and of the amount paid \$3,300,000 was paid to the Western Union.

The financial condition of the Western Union, with some \$15,000,000 net of liquid assets, never was better.

It has been asserted that destructive competition and unfair methods have been resorted to as against rival telegraph companies. The policy of the Bell System is that destructive competition is an economic waste; that permanence and continuity of good service can only be maintained by profitable operation; that no service can be given at less than cost, but where there is a potential business, unutilized facilities can be made profitable by the introduction of additional services. Adopting this policy, the Western Union introduced at popular rates some new services of vast importance with profit to the company and benefit to the public, and the company had in contemplation further extensions of facilities of like character. Whether under the changed conditions brought about by the severance of relations between the two companies these expectations can now be fully realized is doubtful.

CONCLUSIONS.

Theories are at best only unsatisfactory substitutes for facts established by experience. Only such theories as have stood the test of practical experience may be finally accepted. In a field where experience is abundant, to assert theories contradicted by this experience is to invite disaster.

The policy of the Bell System—*one telephone system—under one control*—has been appropriated as their policy by the advocates of government ownership. They assert the desirability of monopoly as their fundamental premise.

They say the government should *attempt to do* what the world concedes the Bell System *has done*.

The American public has been educated to depend on the most efficient, most extended telephone service in the world. The relative number of the people reached is the largest, and the average cost to each is the lowest of any important system in the world. It will not tolerate less; under private ownership it will not pay more.

The outstanding obligations of the Bell System represent actual money properly invested; its physical plant and property are far in excess of these obligations.

All monopolies should be regulated.

Government ownership would be an unregulated monopoly.

From all wrongs of privately owned utilities, appeals may be taken to state and national commissions and to municipal and legislative bodies; from the wrongs of publicly owned utilities administered through the dominant political party, no effective appeal is possible.

There are fundamental economic laws which make it impossible for either publicly or privately owned utilities to furnish service without being paid from some source what it costs.

All government-operated telephones and telegraphs in the world have *two* sources of revenue—the *payment by those who use* and the *payment of the deficit of operation out of general revenue*.

The *price* of a thing to the *user* is what it *costs him*. *Part payment as a user* and *part payment as a taxpayer* is fallacious and absurd and the direct cause of waste and extravagance in operation.

All government reports upon government operations disclose wasteful and unscientific methods; it is these facts which justify the announcement by every new public official of the necessity for new and better methods.

The steady reductions in rates made by the Bell System have been made possible by its improvements in methods and apparatus; they are not due to competition. They have been as great without competition as with it.

At most of the so-called "competitive points"—places where there is an opposition system—the Bell rates are higher than the opposition rates.

No monopoly or great combination in any industry or utility open to competition can be maintained except at a profit so small as to discourage competition. Small profits are a benefit to the public both directly in the price and indirectly by increasing the employment of labor.

That "decrease in price will increase profits" is fallacious and causes much misunderstanding if stated without qualification.

Wherever there is a potential market "decrease in price will increase output;" increased output will, to a certain extent, decrease cost.

A proper adjustment of the relations between cost, price and output will increase aggregate profits.

The development of telephone uses, and the decrease of cost through continued improvement in equipment and methods of operation and service, have opened up the potential market for telephones in the United States as it has been in no other country—sixty-five per cent. of the world's telephones are in the United States.

Regulation by commissions of high standing composed of individuals of ability and integrity, and good impartial judgment, is the greatest protection to the public interests as against private exactions that ever was devised; its effectiveness depends upon "the standing with the public of the Commission as a whole and the Commissioners as individuals."

Unless commissions have the confidence and respect of the public, unless their decisions are accepted by all even if not entirely acceptable to all, unless they mete out exact justice to corporations as well as to the public by decisions characterized by thorough investigation and impartial conclusions, the value of these commissions to the public will be destroyed and regulation by commission will in time be destructive of public service as well as of public morals.

Individuals, public or private, may obtain temporary notoriety by unjust demands and unjust attacks on public utility companies, but no permanent reputation can be made, nor can any permanent public advantage be gained.

For the Directors,

THEODORE N. VAIL,
President.

BELL TELEPHONE SYSTEM IN THE UNITED STATES.

CONDENSED STATISTICS.

	Dec. 31, 1895.	Dec. 31, 1900.	Dec. 31, 1905.	Dec. 31, 1910.	Dec. 31, 1912.	Dec. 31, 1913.	Increase, 1913.
Miles of Exchange Pole Lines.....	25,330	30,451	67,698	120,175	143,842	151,497	7,655
Miles of Toll Pole Lines.....	52,873	101,087	145,555	162,702	171,161	171,554	393
Total Miles of Pole Lines.....	78,203	131,538	213,253	282,877	315,003	323,051	8,048
Miles of Underground Wire.....	184,515	705,269	2,345,742	5,992,303	7,804,528	8,817,815	1,013,287
Miles of Submarine Wire.....	2,028	4,203	9,373	24,636	30,301	31,833	1,532
Miles of Aerial Wire.....	488,872	1,252,329	3,424,803	5,625,273	6,775,984	7,261,363	485,379
Total Miles of Wire.....	675,415	1,961,801	5,779,918	11,642,212	14,610,813	16,111,011	1,500,198
Comprising Toll Wire.....	215,687	607,599	1,265,236	1,963,994	2,189,163	2,333,541	144,378
Comprising Exchange Wire.....	459,728	1,354,202	4,514,682	9,678,218	12,421,650	13,777,470	1,355,820
Total.....	675,415	1,961,801	5,779,918	11,642,212	14,610,813	16,111,011	1,500,198
Total Exchange Circuits.....	237,837	508,262	1,135,449	2,082,960	2,576,789	2,812,944	236,155
Number of Central Offices.....	1,613	2,775	4,532	4,933	5,182	5,245	63
Number of Bell Stations.....	281,695	800,880	2,241,367	4,030,668	4,953,447	5,415,209	461,762
Number of Bell Connected Stations*.....	27,807	55,031	287,348	1,852,051	2,502,627	2,717,808	215,181
Total Stations.....	309,502	855,911	2,528,715	5,882,719	7,456,074	8,133,017	676,943
Number of Employees.....	14,517	37,067	89,661	120,311	140,789	156,928	16,139
Number of Connecting Companies, Lines and Systems.....				17,845	24,013	25,679	1,666
Exchange Connections Daily.....	2,351,420	5,668,986	13,543,468	21,681,471	25,572,345	26,431,024	858,679
Toll Connections Daily.....	51,123	148,528	368,083	602,539	737,823	806,137	68,314

*Includes Private Line Stations.

BELL TELEPHONE SYSTEM IN THE UNITED STATES.
ALL DUPLICATIONS BETWEEN COMPANIES EXCLUDED.

COMBINED BALANCE SHEETS AT FIVE YEAR INTERVALS, 1885-1913.

	Dec. 31, 1885.	Dec. 31, 1890.	Dec. 31, 1895.	Dec. 31, 1900.	Dec. 31, 1905.	Dec. 31, 1910.	Dec. 31, 1913.
ASSETS:							
Contracts and Licenses.	\$16,732,100	\$18,925,700	\$20,005,300	\$14,794,300	\$13,313,400	\$2,943,381	\$.....
Telephone Plant.....	38,618,600	58,512,400	87,858,500	180,699,800	368,065,300	610,999,964	797,159,487
Supplies, Tools, etc. . .	348,500	1,021,800	1,810,000	6,494,400	11,069,500	20,987,551	20,083,113
Receivables.....	1,450,900	1,761,600	3,746,600	13,644,000	26,220,800	26,077,802	40,349,027
Cash.....	1,792,600	1,183,300	2,484,100	3,223,000	11,005,900	27,548,933	31,888,858
Stocks and Bonds.....	1,138,800	2,697,400	4,480,500	11,400,400	23,041,200	64,766,089	90,523,610
Total.....	\$60,081,500	\$84,102,200	\$120,385,000	\$230,225,900	\$452,716,100	\$753,323,720	\$980,004,095
LIABILITIES:							
Capital Stock.....	\$38,229,200	\$43,792,800	\$57,462,700	\$130,006,900	\$238,531,100	\$344,645,430	\$395,224,531
Funded Debts.....	367,400	6,473,100	10,074,100	44,137,900	93,079,500	224,791,696	341,147,485
Bills Payable.....	} 2,618,900	1,323,000	2,000,000	7,000,000	35,000,000	42,566,943	33,743,368
Accounts Payable.....		3,301,100	6,138,000	13,583,300	22,407,500	21,721,125	26,471,681
Total Outstanding							
Obligations.....	\$41,215,500	\$54,890,000	\$75,674,800	\$194,728,100	\$389,018,100	\$633,725,194	\$796,587,065
Employees' Benefit							
Fund.....	.....	.....	.....	.....	.....	.....	8,919,335
Surplus and Reserves..	18,866,000	29,212,200	44,710,200	35,497,800	63,698,000	119,598,526	174,497,695
Total.....	\$60,081,500	\$84,102,200	\$120,385,000	\$230,225,900	\$452,716,100	\$753,323,720	\$980,004,095

BELL TELEPHONE SYSTEM IN THE UNITED STATES.
ALL DUPLICATIONS BETWEEN COMPANIES EXCLUDED.

COMPARATIVE EARNINGS AT FIVE YEAR INTERVALS, 1885-1913.

	Year 1885.	Year 1890.	Year 1895.	Year 1900.	Year 1905.	Year 1910.	Year 1913.
Gross Earnings	\$10,033,600	\$16,212,100	\$24,197,200	\$46,385,600	\$97,500,100	\$165,612,881	\$215,572,822
Expenses	5,124,300	9,067,600	15,488,400	30,632,400	66,189,400	114,618,473	156,883,299
Net Earnings	\$4,909,300	\$7,144,500	\$8,708,800	\$15,753,200	\$31,310,700	\$50,994,408	\$58,689,523
Interest	27,700	278,700	655,500	2,389,600	5,836,300	11,556,864	16,652,624
Balance	\$4,881,600	\$6,865,800	\$8,053,300	\$13,363,600	\$25,474,400	\$39,437,544	\$42,036,899
Dividends	3,107,200	4,101,300	5,066,900	7,893,500	15,817,500	25,160,786	30,301,705
Surplus Earnings	\$1,774,400	\$2,764,500	\$2,986,400	\$5,470,100	\$9,656,900	\$14,276,758	\$11,735,194

American Telephone and Telegraph Company.

Balance Sheet, December 31, 1913.

ASSETS.

Stocks of Associated Companies.....	\$454,307,263.79	
Bonds of Associated Companies.....	581,000.00	
Capital Advances to Associated Companies.....	76,096,615.35	\$530,984,879.14
Telephones.....	\$14,279,677.65	
Real Estate.....	507,430.92	
Long-Distance Telephone Plant.....	49,269,173.30	64,056,281.87
Cash and Deposits.....		22,199,227.64
Special Demand Notes.....		34,311,230.41
Current Accounts Receivable.....		4,404,688.91
		<u>\$655,956,307.97</u>

LIABILITIES.

Capital Stock.....		\$344,616,300.00
4% Collateral Trust Bonds, 1929.....	\$78,000,000.00	
4% Convertible Bonds, 1936.....	4,591,000.00	
4½% Convertible Bonds, 1933.....	67,000,000.00	
5% Western T. & T. Co. Bonds, 1932..	10,000,000.00	
5% Coupon Notes, 1907.....	5,000.00	
Indebtedness to Western Union Telegraph Co. for New York Telephone Co. Stock Payable 1914 to 1915....	4,000,000.00	
Notes to Associated and Allied Companies.....	19,300,000.00	
Notes of Associated Companies Discounted.....	15,000,000.00	\$197,896,000.00
Dividend Payable January 15, 1914. . .	\$6,892,326.00	
Interest and Taxes Accrued, but not due.....	3,091,570.99	
Current Accounts Payable.....	932,297.85	10,916,194.84
Employees' Benefit Fund.....		2,035,652.99
Reserve for Depreciation and Contingencies.....	\$36,836,187.51	
Surplus.....	63,655,972.63	\$100,492,160.14
		<u>\$655,956,307.97</u>

CHARLES G. DuBOIS, *Comptroller.*

American Telephone and Telegraph Company.

Comparative Statement of Earnings and Expenses

For the years 1912 and 1913.

EARNINGS:	1912.	1913.
Dividends.....	\$24,247,430.02	\$26,122,572.81
Interest and other Revenue from Associated Companies.....	12,523,084.45	13,564,952.47
Telephone Traffic (net).....	5,472,812.66	5,548,089.00
Other Sources.....	474,665.62	674,377.34
Total.....	\$42,717,992.75	\$45,909,991.62
EXPENSES.....	4,810,348.49	5,333,245.43
NET EARNINGS.....	\$37,907,644.26	\$40,576,746.19
Deduct Interest.....	5,844,698.86	7,656,655.78
Balance.....	\$32,062,945.40	\$32,920,090.41
Deduct Dividends.....	26,015,587.76	27,454,037.15
Balance.....	\$6,047,357.64	\$5,466,053.26
Carried to Reserves.....	\$2,800,000.00	\$2,500,000.00
Carried to Surplus.....	3,247,357.64	2,966,053.26
	\$6,047,357.64	\$5,466,053.26

CHARLES G. DuBOIS, *Comptroller.*

Annual Earnings and Dividends.

Year.	Net Revenue.	Dividends Paid.	Added to Reserves.	Added to Surplus.
1900.....	\$5,486,058	\$4,078,601	\$937,258	\$470,198
1901.....	7,398,286	5,050,024	1,377,651	970,611
1902.....	7,835,272	6,584,404	522,247	728,622
1903.....	10,564,665	8,619,151	728,140	1,217,374
1904.....	11,275,702	9,799,117	586,149	890,435
1905.....	13,034,038	9,866,355	1,743,295	1,424,388
1906.....	12,970,937	10,195,233	1,773,737	1,001,967
1907.....	16,269,388	10,943,644	3,500,000	1,825,744
1908.....	18,121,707	12,459,156	3,000,000	2,662,551
1909.....	23,095,389	17,036,276	3,000,000	3,059,113
1910.....	26,855,893	20,776,822	3,000,000	3,079,071
1911.....	27,733,265	22,169,450	2,800,000	2,763,815
1912.....	32,062,945	26,015,588	2,800,000	3,247,357
1913.....	32,920,090	27,454,037	2,500,000	2,966,053

CHARLES G. DuBOIS, *Comptroller.*

ARTHUR W. TEELE, C.P.A.
 JOHN WHITMORE,
 HAMILTON S. CORWIN, C.P.A.
 HAROLD F. LEEMING, C.P.A. (OHIO)
 F. R. C. STEELE, C.P.A. (MASS.)
 BOSTON.

CABLE ADDRESS
 "DIGNUS"

Patterson, Teele & Dennis
Accountants and Auditors
New York & Boston

30 BROAD STREET, NEW YORK, February 28, 1914.

MESSRS. WILLIAM J. LADD,
 CHARLES C. JACKSON
 LOUIS CURTIS,
 STOCKHOLDERS' COMMITTEE,
 AMERICAN TELEPHONE & TELEGRAPH COMPANY

SIRS:

Having been appointed by you auditors under the provisions of a Resolution of the Stockholders at the annual meeting of March 25, 1913, we beg to report as follows:

We have audited the accounts of the American Telephone & Telegraph Company and of the thirty-two subsidiary State Companies owning or operating the long distance toll lines of the Bell System for the year 1913. These accounts are consolidated in the Balance Sheet herein referred to.

We have not audited the books of the Associated Companies whose securities are carried as investments in the Balance Sheet herewith, as follows:

Stocks of Associated Companies,	\$454,307,263.79
Bonds of Associated Companies,	581,000.00

We have, however, with two exceptions, examined the reports of these Associated Companies for the year, and have carefully considered the value at which the securities are carried.

We have accepted the balances representing the values of the physical properties of the American Telephone & Telegraph Company on January 1, 1913, and have audited the additions thereto during the year. Renewals and Depreciation have been treated in the accounts in accordance with the regulations of the Interstate Commerce Commission.

We certify that in our opinion the Reserve for Contingencies is sufficient for all necessary purposes, and that the accompanying Balance Sheet is in accordance with the books, and fairly sets forth the financial condition of the American Telephone & Telegraph Company at December 31, 1913.

PATTERSON, TEELE & DENNIS,
 Accountants and Auditors.

DIAGRAM SHOWING THE GROWTH IN SUBSCRIBERS' STATIONS

CONNECTED TO THE SYSTEM
OF THE

BELL TELEPHONE COMPANIES

FROM

JAN. 1, 1876—JAN. 1, 1914

On January 1, 1914, there was one Bell Telephone Station to each 12 of the Total Population of the United States.

