

George Westinghouse: The Man
Remarks by Paul D. Cravath
December 1, 1936

George Westinghouse Commemoration: A Forum Presenting the Career and Achievements of George Westinghouse on the 90th Anniversary of his Birth. Conducted by the American Society of Mechanical Engineers

I have reached that unfortunate age when frequently recurring semicentennials are a constant reminder that I have been on the stage of life beyond the allotted span of three score years and ten. This year happens to be the fiftieth anniversary of the beginning of my association with George Westinghouse. He was my first important client, and my association with him until a short time before his death was very close and intimate. I confess that on this occasion, when most of you who had no close personal contact with Mr. Westinghouse are thinking of the inventor, it is the man, and not the inventor, that dominates the memories of my long association with him, so that the topic you have assigned to me fits in with my mood.

I first met Mr. Westinghouse in the fall of 1884 when I stopped off at Pittsburgh on the way from my home in the West to begin my training for the bar in a law school in the East. I shall never forget the graciousness with which this busy man interrupted his work to talk with me, a callow youth of whom he had never heard; nor shall I ever forget the impression of simplicity and radiating energy that he made upon me.

Whenever I visit the great works of the Westinghouse Electric & Manufacturing Company at East Pittsburgh, I am reminded of my second meeting with Mr. Westinghouse. It was in the fall of 1886, in the company's little shop, which then occupied one floor of a small building in Pittsburgh. I remember, as vividly as though it were yesterday, the enthusiasm with which he spoke, even to a humble visitor like myself, of the unbounded possibilities of electricity applied to the service of man and, more especially, of the great destiny of the alternating current.

It was soon after that, when Mr. Westinghouse, with characteristic courage and breadth of vision, had chosen the largest city in the country in which to demonstrate the superiority of alternating current for central-station lighting, that he acquired control of the high-tension electric-lighting enterprises in New York which were destined to play so important a part in the development of his plans. It was as counsel for those enterprises that I began my association with Mr. Westinghouse - an association that was destined to become the most absorbing and inspiring relationship of my life. For 25 years my relations with Mr. Westinghouse were most intimate.

During that period, in my humble role, I worked at his side in the development of his electrical enterprises which, after the successful establishment of the Air Brake Company, absorbed the major part of his energy and interest. I saw him thus intimately under almost every conceivable condition-in his home, at his office, in his factory, in his private car which was almost another home, abroad, as well as in this country. I saw him when he was elated by successful achievement, and amid disappointments and discouragement, and more than once in the face of threatening disaster. I saw him when he was carrying a load of responsibility under which any other man whom I have ever known would have fallen. He was always the same; simple, unassuming, direct, frank, courageous, unfaltering in his faith, and supremely confident in the ultimate triumph of his plans. I have seen him wearied almost beyond endurance; disappointed beyond expression over some miscarriage of his plans; wounded in his feelings because he had discovered stupidity where he expected intelligence, discouragement where he had expected encouragement, disloyalty where he had a right to expect loyalty. I have seen him more than once when every man about him despaired of his being able to attain the ends for which he was striving and advised surrender or compromise, but I have never known him to acknowledge defeat nor to yield to discouragement, nor to falter in his efforts to accomplish his main objectives.

Comparing George Westinghouse with the other men of his generation who acquired conspicuous positions in the world of industry and finance, it is my considered judgment that no man I have known combined so many of the qualities that make for greatness. The qualities that constitute genius in a human being defy definition. Judged by the standards that I am able to apply, George Westinghouse was a great genius. I assume that all will agree, indeed, the world recognizes, that he was a genius in the field of invention and mechanics. It would be unbecoming for an ignoramus like me to discuss here this phase of Mr. Westinghouse's genius.

A GREAT INVENTOR, ORGANIZER, AND FINANCIER

Besides being a great inventor, Mr. Westinghouse was a great organizer. Perhaps in his lifetime this assertion would have been questioned by some. I do not see how it can be questioned now. Remember that I am attributing to him as an organizer the qualities of greatness, and not the quality of superficial efficiency. He undoubtedly had the faults of his qualities. Every great man has. Judged by standards of temporary efficiency and by immediate results, his methods of organization sometimes seemed unsound. They were often irritating to his associates. He was apt to be careless of immediate success and to look far ahead for ultimate results. He had the strength of character and the wisdom to submit to temporary inconvenience and to sacrifice temporary advantage to achieve his ultimate ends. Now that we can begin to look back upon Mr. Westinghouse's achievements as an organizer with some approach to the perspective of the historian, we must agree that as an organizer, Mr. Westinghouse manifested qualities of real greatness. Not always unerring in his choice of men, he was always sound in the selection of the fundamental principles which underlay his method of organization. He was a great personal leader, and inspired devotion and affection among his fellow workers of all ranks. By his own boundless industry and energy he set an example of vigorous and untiring effort that vitalized all the organizations of which he was the head. Every enterprise that he created was built on foundations that were essentially sound and strong. Those foundations have proved able to carry the enormous structures that only his vision was able to foresee.

It is a sad commentary on the limitations of human wisdom that the full fruition of Mr. Westinghouse's plans as an organizer came only after his death. The great enterprise's that he founded, some still bearing his name, others transferred to different affiliations, are today achieving signal success along the lines that he laid down, and in the main by men developed under the inspiration of his leadership. He was the soul of the enterprises that he created. That soul is immortal. It still goes marching on, and will forever animate the enterprises upon which almost a half million people depend for their livelihood-enterprises that are all devoted to increasing the comfort, safety, and happiness of the world. Has any organizer of our day left a comparable record? Is there any other for whom posterity can make so convincing a claim for qualities of true greatness?

Besides being a great inventor and a great organizer, Mr. Westinghouse was, in my estimation, a great financier. This claim would have been questioned by many during his lifetime-some would doubtless question it now. I prophesy it will not be questioned by posterity. I don't say that he was a prudent financier, especially if judged by the standards of Wall Street or of orthodox banking circles in Pittsburgh, but I do claim that he was a great financier. If he had been what we are pleased to call a prudent financier he probably would not have been a great one.

Let us analyze Mr. Westinghouse's claim to greatness as a financier. He was a pioneer in at least four important fields of industry. His enterprises from their very nature required enormous capital. Several, indeed all, of his enterprises were of such character that long periods of experiment and development necessarily preceded the ultimate success that would yield profits. Capital for enterprises of that character, which could not show an earning statement, was difficult to obtain, and yet Mr. Westinghouse, starting life without capital of his own, was able to obtain almost unaided, by the sheer force of his faith, by his power to inspire confidence, by the qualities of his genius, the enormous sums required for the development of his enterprises. He rarely numbered among his close associates important financiers or wealthy men. This may have been a fault, but it was a limitation growing out of the very qualities of his genius. He found it difficult to work with so-called financiers. What seemed to him to be their lack of vision and faith was always annoying to him. While he often tried to work in concert with strong financial associates, he usually found himself in periods of financial stress,

compelled to rely upon his own energy and his own resourcefulness. In at least two great financial crises, when the financiers had given up the task as hopeless, Mr. Westinghouse, by his faith, by his untiring energy, and by the exercise of a power to influence men that I have never seen equaled, was able to weather the financial storm, raise enormous sums of money, and restore his enterprises to a sound financial position when his critics and most of his friends were certain that he was facing a crushing defeat.

It was inevitable that a man of George Westinghouse's courage and boldness should suffer financial setbacks; but he never suffered financial defeat. Today all the enterprises that he founded are sound and prosperous. Their financial structures are of his building. Those structures rest upon the sound foundations that he laid. These enterprises, employing, as they do, not far from a quarter of a billion dollars of capital, were financed by Mr. Westinghouse almost unaided and often in the face of discouragement and opposition. They constitute the monument to his success as a financier. I say, therefore, that he was a great financier, and I prophesy that that will be the verdict of history.

In all these fields of endeavor-as an inventor, as an organizer, and as a financier-judged by the standards that I am able to apply, I think he was a great genius. In each field he combined, beyond any man I have ever known, the qualities that seem to me to go to make up genius. They are mental energy, imagination, faith, courage, and character. These qualities were combined in George Westinghouse to a remarkable degree. Any man who has been his business associate for a quarter of a century has often seen him under circumstances that required the exercise of all these qualities. A man who lacked any of them could not have carried the burden in the face of discouragement and opposition that so often rested upon his shoulders.

IMAGINATION, FAITH, AND COURAGE MADE HIM A GENIUS

The qualities of George Westinghouse which, it seems to me, gave him the supreme quality of genius, were the qualities of imagination, faith, and courage. We know many men of great mental vigor; we know many men of strong character. Those qualities are, of course, the background of any successful career, but I am sure none of us has ever known a man who combined the qualities of faith, imagination, and courage as they were combined in George Westinghouse. Those who are familiar with his enterprises are constantly finding new evidence of these qualities. A very interesting-almost dramatic -instance came to my attention in London during the last year of the War. I presume that most of Mr. Westinghouse's associates would look upon the British Westinghouse Electric Company as one of his failures. In one sense it was a failure, yet the conception out of which that enterprise grew was the conception of a great man, whose vision, imagination, and courage carried him beyond the limits of prudence and business discretion.

During the European War, one of the strongest groups of business minds in Great Britain determined to enter the electrical field. They purchased the British Westinghouse Electric Company. One of these men asked me to spend an evening with him and a few of his associates to give them such information as I could about the early history of the enterprise. Their leader asked me to explain to them the reasons that prompted Mr. Westinghouse to organize the British Westinghouse Electric Company and build the immense works at Manchester, which, until the outbreak of the War, were much larger than the business which the company had been able to secure would justify. I tried to give Mr. Westinghouse's conceptions as I remembered them; that the high-tension alternating current was sure to become the foundation of all central-station development; that England was an ideal field for the extensive use and distribution of electricity; that most of the British railroads had such a dense traffic as to be practically suburban roads, according to American standards; that the most economical method of providing electrical power for the United Kingdom was by the establishment of generating stations near the coal mines so that instead of distributing coal, electricity would be distributed; that instead of many central stations scattered all over the country there should be a few at strategic locations; that as the financial structure of the railroad enterprises of Great Britain was such that they would find it difficult to raise new capital, there should be separate organizations separately financed, for developing the electrical power and selling it to the railroads. When I had finished my story, the leader of the group turned to his associates and said with real emotion: "This is most remarkable. The vision of Mr. Westinghouse is almost word for word our vision. The plans he formed are almost identical with the plans we propose to carry through." Then he turned to

me and said: "Mr. Westinghouse's conception of what should be done was faultless. It was his misfortune that he underestimated the force of British conservatism, and was a quarter of a century ahead of the times. If Great Britain had accepted his advice, waste totaling countless millions would have been prevented. It will now be necessary to scrap enormous investments in uneconomical plants to make way for the carrying out of Mr. Westinghouse's plan." He added that so conservative, so slow to adopt new ideas are the British people that even today the Government would be compelled to apply the spur of legislation to force the adoption of the measures which were proposed by Mr. Westinghouse a quarter of a century earlier. When he finished, I said: "You must agree, gentlemen, that while Mr. Westinghouse may not always have been a prudent man, he was a great man." "Yes," said their leader, "Mr. Westinghouse was a great man."

In what I have said I have dwelt, as it is proper that I should dwell, upon Mr. Westinghouse's qualities of greatness, for his former associates are anxious that the world should recognize, as it surely will, those qualities in the man who for so many years we were proud to call our chief; but I am sure that those of you who were his co-workers, will find yourselves tonight thinking not of the man of genius, but of the simple, unaffected, loyal friend whom we affectionately called, "The Old Man;" who was never too deeply absorbed to say a word of kindness and encouragement to an associate or subordinate; never so engrossed in his great achievements that he did not have time to help a friend who needed his help. It would seem profanation if I attempted by any words of mine to add to the brightness of the image that memory has implanted in our hearts. After all, was it not the finest thing about Mr. Westinghouse, man of genius as he was, that he retained from the beginning to the end of his career of great achievement, that simplicity and genuineness of character that endeared him to all his associates? I need not say to them that we shall never see his like again.

The Forum included a second address by James Angell, President of Yale University. Earlier in the day, there were five panel discussions.

1. The Air Brake
 - Ralph Budd, President, Chicago, Burlington & Quinsy Railroad
 - W. W. Nichols, Assistant to Chairman, Allis-Chalmers Manufacturing Company
 - Ambrose Swasey, Past President, A.S.M.E.
 - Thomas Campbell, Oldest Employee, Westinghouse Air Brake Company (retired)
2. Alternating Current
 - A. W. Berresford, Past president, A.I.E.E.
 - L. B. Stillwell, Consulting Electrical Engineer (Retired)
 - C. R. Beardsley, Superintendent of Distribution, Brooklyn Edison Company
3. The Steam Turbine
 - E. E. Keller, former Vice President, Westinghouse Machine Company
 - Francis Hodgkinson, Consulting Engineer, Westinghouse Electric and Manufacturing Company
 - Frank W. Smith, President Consolidated Edison Company
4. Railway Electrification
 - N. W. Storer, Consulting Engineer, Westinghouse Electric and Manufacturing Company (Retired)
 - S. M. Vauclain, Chairman, The Baldwin locomotive Works
 - George Gibbs, Giggs & Hill, Consulting Engineers
 - W. S. Murray, Consulting Engineer, formerly with the New York, New Haven & Hartford Railroad
 - J. V. B. Durr, Chief Electrical Engineer, Pennsylvania Railroad
5. Industrial Relations
 - John F. Miller, Vice-Chairman, Westinghouse Air Brake Company