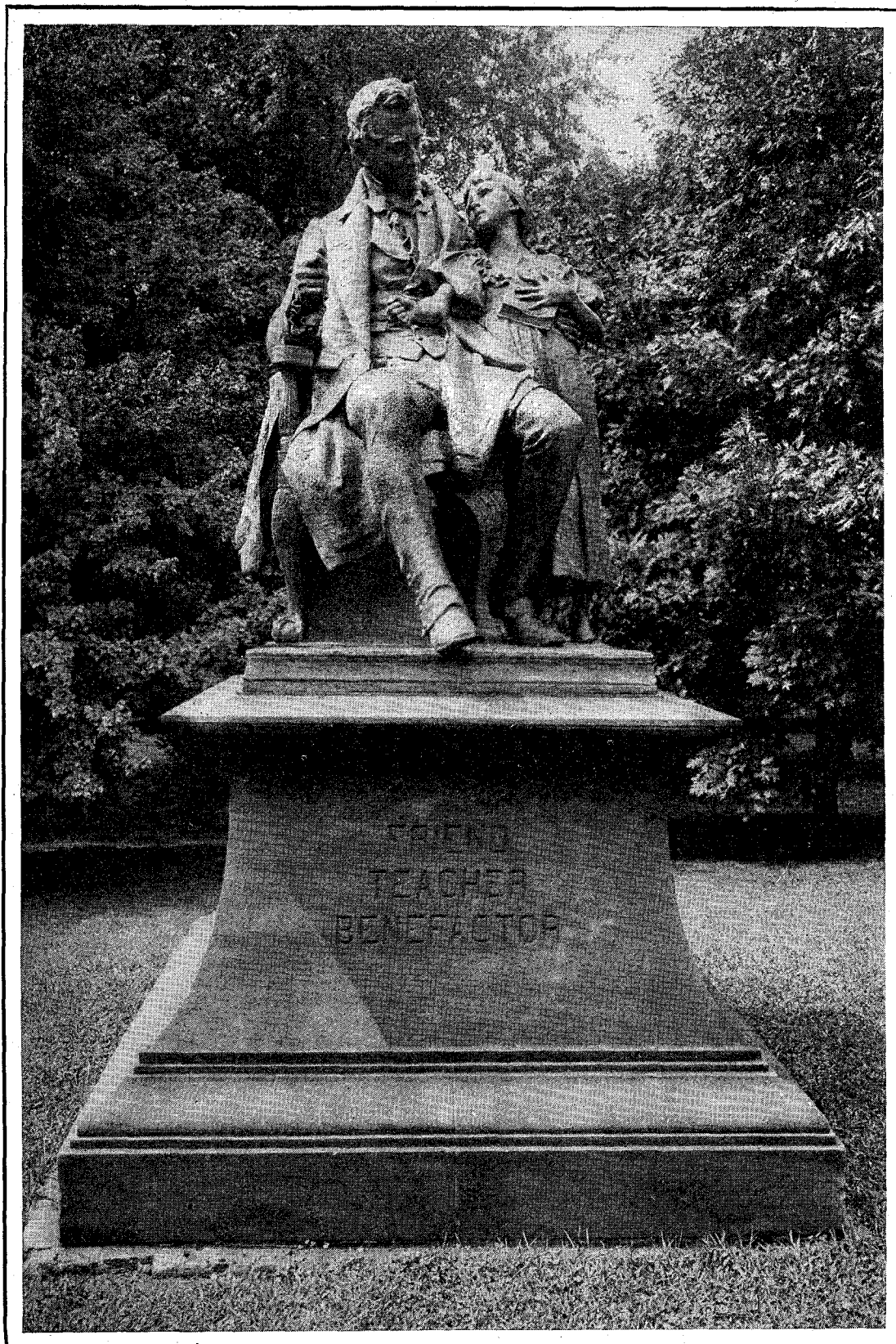


# AMERICANS WORTHY OF



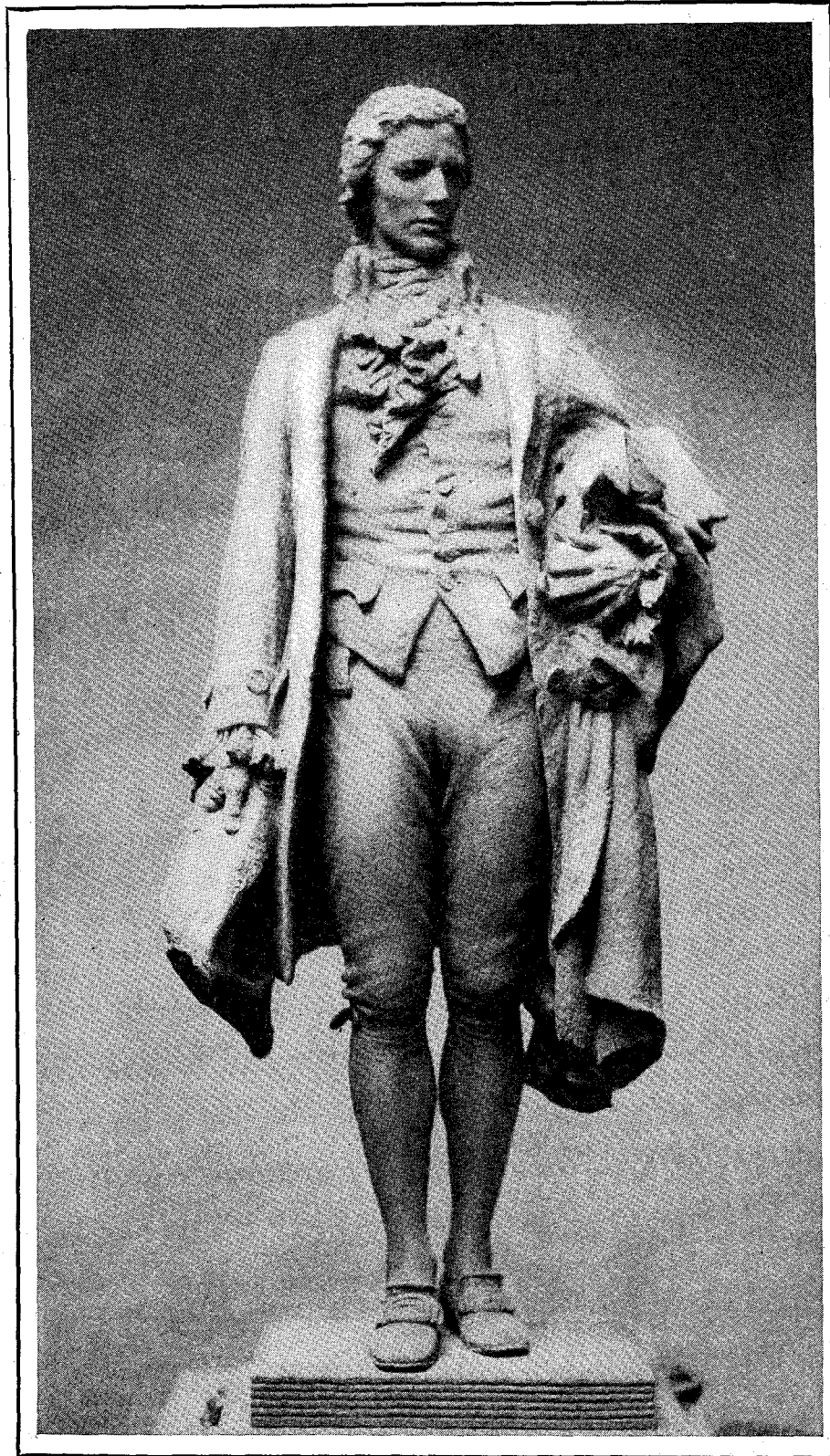
(C) Harris & Ewing

STATUE OF THOMAS H. GALLAUDET, TEACHER OF DEAF MUTES, BY  
DANIEL CHESTER FRENCH

Dr. Gallaudet founded the first school for deaf-mutes in the United States, and Gallaudet College, on the grounds of which the statue has been erected, is the only college which gives degrees to deaf-mutes. The fund for the statue was subscribed to by alumni and alumnae of the College in all sections of the country



# ENDURING BRONZE



Dorr News Service

## A NEW STATUE OF ALEXANDER HAMILTON, BY J. E. FRASER

This is the first clay model of a new statue of Alexander Hamilton, designed by James Earle Fraser, which will be cast in bronze and mounted on a pedestal of Stony Creek granite, at the entrance to the Treasury Building, Washington, D. C. The statue, it is announced, will be dedicated by President Harding in October



# A FEW RECOLLECTIONS OF ALEXANDER GRAHAM BELL

BY GEORGE KENNAN

IT was with a shock of deep personal grief that I received, a few days ago, the announcement of the death of Alexander Graham Bell. I had been closely associated with him for more than thirty years, and had come to know him intimately, not only as a scientist, but as a comrade and friend who was interested in all the things that I most cared for, and who shared with me the happiness that he himself derived from the study of science, the love of nature, and the pleasures of outdoor life. For twenty-five years I sailed with him, hunted with him, and camped out with him in a country which was then little known, but which afterward attracted wide public attention on account of his love for it and long association with it. In the close intimacy of camp, log cabin, sailboat, and wilderness I came to know him well and to feel for him the deepest affection and respect. I never made any notes of my association with him, and I have doubtless forgotten many incidents that would throw light on his character and life; but I still remember a few, which may have interest for those who did not know him personally.

I made his acquaintance in the city of Washington nearly forty years ago; but I did not come to know him well until 1889, when we began to spend our summers together in eastern Nova Scotia. There, on the island of Cape Breton, where we both had summer homes, we were very closely associated, and there I first became interested in his scientific work. His house and laboratory were situated on the southeastern side of Baddeck Bay, nearly opposite our cottage, and, as all his more spectacular experiments were tried either on the bay or on the side of the promontory beyond it, they were in plain view from our veranda. Soon after he made Baddeck his summer home he became interested in the problems of aeronautics, and after studying the action of the wind on movable planes he took up the development and improvement of the cellular or box kite. This seemed to have great lifting power, and he hoped that by increasing the number of cells and making them tetrahedral in form he could create a structure that when forced through the air by a powerful motor would actually fly. Scores of times, in the first years of our life in Baddeck, we rushed out on the veranda, glasses in hand, to watch one of Mr. Bell's kites as it rose, like a huge empty honeycomb of red silk, into the upper air. These kites, which were made in Mr. Bell's laboratory under his direct supervision, were carefully built structures of bamboo, silk, and piano wire, and were as perfect in workman-

ship and finish as a Stradivarius violin. He finally made a monster kite, of a hundred cells or more, which was capable of supporting the weight of a man; and Lieutenant Selfridge,<sup>1</sup> who had been sent to Baddeck by the War Department to observe Mr. Bell's experiments, offered to go up in it. The kite carried him successfully to a height of a hundred feet or more, but finally settled down with him into the lake. Subsequent experiments showed that, while the cellular kite had great lifting power when flown at the end of a cord, the surface friction in the multitudinous cells was so great that no motor then available could force it through the air rapidly enough to make it rise. Mr. Bell afterward co-operated with Curtiss and Selfridge in flying-machine experiments at Hammondsport; built a successful airplane in Baddeck, and suggested various modifications in structure which made the machine much more safe and stable in the air.

Some of his experiments, in the early stages of his aeronautical work, seemed to me as queer as they probably were instructive. One day, I remember, in Baddeck Mr. Bell, Professor Langley, and Simon Newcomb spent an hour or two in dropping a cat, back downward, from a balcony, in order to study the way in which she turned herself in the air so as to alight on her feet. I presume it was Mr. Bell's idea, but none of the trio seemed to be conscious of the humorous incongruity between the fame and scientific standing of the experimenters and the trivial nature of the experiment. To them it was interesting as a problem in physics, while to the unscientific observer it was chiefly notable as an amusing eccentricity of great minds. To see the most noted inventor, the most eminent physicist, and the most distinguished astronomer in America solemnly engaged in dropping a cat back downward from a balcony seemed to me funny enough to make even the cat laugh. It was reported in Baddeck that summer that when Professor Langley returned to Washington he contrived and constructed a mechanical cat which turned itself in the air precisely as the living animal did. Whether this was true or not I never knew; but it seemed likely enough, because Professor Langley at that very time was engaged in flying-machine experiments with whirling planes.

Mr. Bell's kite experiments occupied several years, but he did not confine himself to problems of aeronautics. His

active brain was amazingly fertile in ideas and expedients; the range of his interests was very wide, and he thought of and constructed all sorts of things, from the induction balance and the telephonic probe to the graphophone and a machine for the resuscitation of the apparently drowned. A series of experiments that interested him for a long time—in fact, almost up to the day of his death—had for its object an improvement of the Nova Scotian breed of sheep by means of artificial selection and mating. He gave a great deal of thought to questions of heredity and eugenics, and long before he discontinued his kite experiments he was engaged in an attempt to create a variety of sheep that would bear twins regularly and triplets frequently, and thus reproduce itself with great rapidity. These experiments were completely successful so far as the establishment of the desired breed was concerned, but whether the gain in fertility was not counterbalanced by a deterioration in flesh and wool I do not know.

Any matter that happened to interest Mr. Bell he studied with patient care and investigated by means of original and often highly ingenious experiments. At one time, I remember, his attention was drawn to the waste of heat that results from the burning of fuel in open fireplaces. He at once began a series of experiments to show how great this waste is and to prove that most of the lost heat might be conserved. One afternoon he took me up into the attic of his house to show me a wool-packed tank holding a hundred gallons or more of water whose temperature had been raised to 168° by the conserved heat of an ordinary kerosene lamp burning in a room two or three stories below.

At another time he became interested in the distillation of salt water for drinking purposes. Off the coast of Nova Scotia fishing dories frequently get lost from their ships in fog, and their occupants suffer greatly from thirst before they can reach the land. To Mr. Bell this seemed unnecessary, and he invented a compact and portable still, which occupied very little room, but which could turn salt water into fresh fast enough to sustain the life and mitigate the suffering of two or three men who might happen to get adrift in an open boat. When the miniature yacht Typhoon sailed from Baddeck for England, two or three years ago, it was provided with one of these stills for use in case of accident or emergency.

At one time Mr. Bell was greatly interested in astronomy and meteorology, and in the fall of 1897 I was present at

<sup>1</sup> Killed September 17, 1908, by an accident, while he was flying with Orville Wright at Fort Myers, Virginia.