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**MEMOIR OF JOHN B. HATCHER***

BY W. B. SCOTT

A full account of Mr Hatcher's varied and eventful life would be a fascinating story of adventure, of daring and unconquerable energy, of self-sacrificing devotion to duty, and of single-minded love of science. This story can never be adequately written, for only the hero could have done that; what he might have made of it is indicated by the "Narrative" of his expeditions to Patagonia. In reviewing this work for *Science*, Doctor Dall has said:

"At times wrapped in gloomy fogs or swept by tempests of incredible violence; fronting the towering Atlantic surges with unshaken cliffs and serrate talus, looking out to shifting bars of sand, the terror of the navigator; a vast cemetery for ghostly herds, upon the like of which alive no man has ever looked; it is a strange, silent, bitter, lonely land.

"How our author went out into it, what he met, and how he fared are told in modest yet most interesting fashion in this stately quarto. His story is so interesting and the unpretentious courage of the narrator so evident, the spirit of the land and its mysterious fascination so fully expressed, that few will close the book without a regret that it can not reach a wider audience. It is really too good to be reserved for the readers of quartos.

"The volume is so full of scientific meat that it is difficult to make a satisfactory abstract and impossible to condense it within the limits of such a review as this. There is something for every taste. The life of bird and beast; the phases and contrasts of vegetation; the life of the Tehuelche Indians and the waifs who have cast civilization aside like a garment at the call of the wild; the topography and geology; and mingled with it all a flavor of real North American character, to which something in each reader's soul will leap with sympathy and admiration."

*This memoir was not read on account of the absence of the author, but is inserted here in its proper place.*
While it is now impossible to tell this remarkable story in detail, its principal events may be compressed into a brief statement.

John Bell Hatcher, the son of John and Margaret Hatcher, was born at Cooperstown, Brown county, Illinois, on October 11, 1861, and at a very early age removed with his family to Greene county, Iowa, where he remained till his twentieth year. As a child, he was so weak that his parents could scarcely hope to see him grow to manhood, and his early education was given him by his father, who was a teacher as well as a farmer. Gradually his strength increased, and as he grew older there matured within him a determination to become a thoroughly educated man—a determination which he followed with characteristically persistent energy and scorn of obstacles, however seemingly insuperable. To secure the funds necessary for his education, he became a coal miner, and, being a born observer, the miner's life soon awakened in his mind a great and ever growing interest in geology and in the fossils which he saw around him. It was to follow this early bent that in 1880, after a short stay at Grinnell College, Iowa, he went to Yale University, whither he was especially attracted by the fame of Professor J. D. Dana, whose books he had zealously studied. At New Haven he devoted himself to the natural sciences, more particularly to geology and botany. A collection of Carboniferous fossils, which he had made in his coal-mining days, was the means of introducing him to Professor Marsh, who sent him to the West as a collector immediately after his graduation.

In this connection I may perhaps be permitted to quote what I have elsewhere written:

"Thus began a career which was unrivaled of its kind, for Hatcher had a positive genius for that particular work, as is well known to all who have had the privilege of accompanying him in the field. Marvelous powers of vision, at once telescopic and microscopic, a dauntless energy and fertility of resource that laughed all obstacles to scorn, and an enthusiastic devotion to his work combined to secure for him a thoroughly well earned success and a high reputation. He may be said to have fairly revolutionized the methods of collecting vertebrate fossils, a work which before his time had been almost wholly in the hands of untrained and unskilled men, but which he converted into a fine art. The exquisitely preserved fossils in American museums, which awaken the admiring envy of European paleontologists, are to a large extent directly or indirectly due to Hatcher's energy and skill and to the large-minded help and advice as to methods and localities which were always at the service of any one who chose to ask for them.

"Hatcher's uprightness and sincerity of character, no less than his remarkable energy and persistence, attracted to him the admiration of many western men, by whom frequent tempting offers were made him to leave the unremunerative paths of science for the material rewards of business; but in vain. He would not seriously consider the abandonment of his chosen work for any reward whatever, and he died in harness."
Of his wonderful activity and success as a collector, Schuchert has remarked:

"From 1884 to 1892 he sent in nearly 900 boxes of vertebrate material. As a rule, these boxes were of large size, and one exceeded 3 tons in weight. This huge box (about 10 feet long, 5 feet wide, and 6 feet deep), containing the largest known skull of *Triceratops*, had to be lifted out of a ravine 50 feet deep and hauled to the railroad over a trackless country and through streams for more than 40 miles. It is no exaggeration to state that during the 20 years of Hatcher's paleontological activity, he, with the assistance of a few field helpers, sent to the United States National Museum, and to Yale, Princeton, and Carnegie museums not less than 1,500 boxes of fossils. This is a record that will stand unequalled—a work that Hatcher loved—resulting in material part of which he hoped it would be his lot to study. After Marsh's death the uncompleted Ceratopsia volume was assigned to Hatcher by the United States Geological Survey. This gave him great gratification, for he was thus enabled to associate his name, not only as a collector but also as a student, with these great and curious beasts, all of which he had discovered and taken up."

Dr W. J. Holland, director of the Carnegie museum in Pittsburg, has borne similar testimony to Hatcher's work as a collector:

"Mr Hatcher's position as a paleontologist was unique. He is universally admitted by those most competent to pass judgment to have been the best and most successful paleontological collector whom America has ever produced. In saying this it may at once be admitted that he was in all probability the most successful collector in his chosen domain who has ever lived. Professor Hatcher and those associated with him under his control during the years of his activity in the field assembled more important vertebrate fossils than have been assembled by any other one man whose name is known in the records of paleontology. The larger proportion of the choicest vertebrate fossils now in the Peabody museum at Yale University, in the collection of the United States Geological Survey, in the museum of Princeton University, and in the museum of the Carnegie Institute at Pittsburg were collected by him. To a very large extent the American methods of collecting such remains, which are now universally admitted to be the best methods known, were the product of his experience in the field and of his careful thought. In a letter just received by the writer from Professor Henry Fairfield Osborn, the Paleontologist of the United States Geological Survey, he says, alluding to the death of Professor Hatcher: 'I can hardly tell you how shocked and grieved I am. I had often thought of the probability of Hatcher's death in the field when taking great risks and entirely away from medical and surgical attendance, but of his death at home I had not thought a moment. In his intense enthusiasm for science, and the promotion of geology and paleontology, and the tremendous sacrifices he was prepared to make, and *had made*, he was a truly rare and noble spirit—the sort of man that is vastly appreciated in England and in Germany, but I fear very little appreciated in America. His work as a collector was magnificent—probably the greatest on record.'"

While thus at work as a collector over an enormously wide range of country and through almost the whole geological column from the Per-
mian to the Pleistocene, Hatcher was continually studying the stratigraphy of the beds in which he worked and determining their faunistic divisions and subdivisions. Nor did he neglect the dynamical and structural problems involved in the formation of the successive beds. Not only was he an unusually keen and accurate observer, but he possessed a singularly original and independent mind. He was utterly impatient of authority in science, and to him every theory must be supported by convincing evidence and not merely buttressed by the weight of great names. His untimely death has robbed the world of a rich store of geological knowledge, the publication of which had not fairly begun.

In 1893 Hatcher accepted a call to Princeton University as assistant in geology and curator of vertebrate paleontology in the museum, and with unabated zeal continued his work along much the same lines as before. During the three seasons 1893–1895 he worked in the Uinta, White River, and Loup Fork and Sheridan beds, gathering great quantities of priceless material. On all of these trips he was accompanied by field parties of students, who became his fast friends and ardent admirers; his skill, energy, persistence in the face of difficulty and peril appealed most strongly to their imaginations. On the other hand, he took the warmest interest in his students, especially in those whose education must be gained through their own efforts; with admirable delicacy and tact, he was fertile in devices to enable them to help themselves and thus continue their studies unweighted by any humiliating sense of being the objects of charity.

The most important work that Hatcher undertook during his connection with Princeton, and perhaps the most important enterprise of his whole career, was his exploration of Patagonia in the three expeditions of 1896–1899. The plan and execution of this great work were his own; from his former students he obtained a large part of the necessary funds, to which he generously contributed himself. Indeed, proportionately to his means he was the largest subscriber to the fund. The expeditions, the main object of which was to secure representative collections illustrating the geology and paleontology of Patagonia, were brilliantly successful, and their scope was gradually extended so as to include as well the botany and zoology of the region. To his assistants, Messrs Peterson and Colburn, much credit for the success of the work is due; but the leading spirit was Hatcher's throughout. In his "Narrative," already mentioned, may be found the extremely well written and interesting account of his Patagonian journeys; but, interesting as it is, this book gives to the reader a very imperfect conception of his achievement. Only those who heard his intimate talk and had the pleasure of reading his fascinating letters from the field can understand what were the diffi-
culties and dangers that opposed his advance or can rightly estimate the
dauntless courage and unrelenting energy which triumphed over the
most formidable obstacles, both material and moral. Wounds and sick­
ness, long weeks of helpless and agonizing pain, hardships of every kind,
represent but a few of the difficulties that he met and conquered. In
the long and glorious history of scientific exploration there are but few
chapters that tell of truer heroism and finer achievement than Hatcher's
life in Patagonia.

When all the collections had been brought to Princeton and it was
seen what a mass of new and valuable material had been secured,
Hatcher conceived the plan of publishing the whole in a uniform series
of reports by the ablest specialists who could be induced to cooperate.
The only alternative would have been a crowd of more or less fragment­
ary and uncorrelated papers scattered through many technical journals
and proceedings of societies. The liberality of J. Pierpont Morgan, Esq.,
has made possible the realization of this plan, and the "stately quartos"
of the Reports of the Princeton University Expeditions to Patagonia will
form a lasting monument to the memory of Hatcher, whose labors and
sacrifices they record.

In February, 1900, Hatcher became curator of vertebrate paleontology
in the museum of the Carnegie Institute, Pittsburg, a position in which
he remained till his death, on July 3, 1904. The same qualities that
had distinguished his earlier career continued to make him equal to his
new and larger duties and responsibilities. To him especially is due
the extremely rapid growth of the Pittsburg collections and their
remarkably high quality.

Aside from the desolated household and the circle of bereaved friends,
the essential tragedy of Hatcher's early death lies in the fact that his
work had just begun. Though best known as a collector and the most
skillful and successful of collectors, he was very much more than that.
For 20 years he had been giving himself the most thorough training and
acquiring an experience of such magnitude and variety as falls to the
lot of few geologists. All his previous life had been but the seed time,
and just as the harvest was ripe for the sickle, the reaper was stricken
down. Owing to a modest self-distrust, his productive period began
relatively late, and his first paper was published after his removal to
Princeton; but he gradually gained confidence with experience, and had
his life been spared he would surely have enriched science with a series
of notable contributions. For enthusiastic, self-sacrificing devotion,
unconquerable determination, and high achievement, we shall not soon
look upon his like again.
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*From Schuchert, American Geologist, 1905, page 139.


MEMOIR OF HENRY MCCALLEY


MEMOIR OF HENRY MCCALLEY
BY EUGENE A. SMITH

Henry McCalley, who died of pneumonia in Huntsville, Alabama, on November 21, 1904, was born in that city February 11, 1852. He was the son of Thomas Sanford McCalley, of Spottsylvania county, Virginia, and Caroline, daughter of Robert Landford, who built the second house in Huntsville.

Mr McCalley was one of a family of nine children who reached adult age. He lived at his home, 2 miles west of the court-house in Huntsville, from his birth to manhood. His school career was begun under the care of Mrs McKay, then considered the most excellent teacher for young children. From Mrs McKay he went to Dr J. M. Bannister, rector of the Church of the Nativity, and afterward to the noted Mr Charles Shepard, who is still living and engaged in teaching. At the well known school of Dr Carlos G. Smith he was prepared for college, soon after the end of the civil war. As the University of Alabama was at that time in the hands of the “carpet-baggers” and without students, he went to the University of Virginia, from which institution he was graduated in 1876 with the degrees of Civil Engineer and Mechanical Engineer. At the university he applied himself very closely to his studies, gaining the highest esteem of both professors and students, but sacrificing his health. On his return home after graduation he spent one year on the farm with a view to restoring his health.

With the strong recommendation of the faculty of the University of Virginia, he took charge of a school at Demopolis, Alabama, where he remained one year and part of another. In the summer vacation of 1877 he came to the Geological Survey of Alabama as a volunteer assistant and traveled with the writer through a part of the Warrior coal field and the valley of the Tennessee. The following year, 1878, Mr McCalley gave up his school and came to the University of Alabama as assistant in the department of chemistry, then in charge of the writer of these lines. This position he held until 1883, at the same time also serving as volunteer assistant on the Geological Survey, for during the first ten years of the existence of this second survey the annual appropriation was only $500, none of which went for salaries.