

Frank Springer

RAREST STONE LILIES

BY DR. CHARLES KEYES

Recent publication by that venerable promoter of scientific knowledge, the famed Smithsonian Institution of Washington, on the *Crinoidea Flexibilia*, recalls to mind the facts that the author of this monumental effort is an Iowa son, that the work was initiated and carried on principally within the boundaries of our state, and that the materials of which it is composed were mainly discovered in Iowa rocks.

It is not generally known perhaps that Iowa is the most celebrated place in all the world as the home of those beautiful fossil forms popularly called stone lilies, or stemmed feather stars, marine animals akin to the starfishes and sea urchins that infested the shallow epicontinental waters of the long, long ago, when our Iowa land formed the shores of the ancient Mexican Gulf.

Some of the thick rock platforms of the southeastern corner of our state are often literally composed of the skeletal remains of these strange and delicate organisms. Long before Iowa acquired statehood these crinoids attracted the attention of scientific men. Many names of the most famous of earth students are connected with their collection. It remained, however, for two Iowa men to enter upon the systematic and comprehensive study of these curious remnants of bygone life. They are Charles Wachsmuth and Frank Springer, for many years residents of Burlington. Together they make their home town a famous scientific spot.

The great paleontological *chef d'oeuvre* of which the present two volumes are a second generous installment may be said to have been originally inspired by the eminent naturalist, Louis Agassiz, in the third quarter of the last century when he visited the West and realized the vast significance of the Burlington crinoid collections. So quietly have these profound researches gone on that few persons living in the Mississippi Valley are cognizant of the fact that one of the most complicated scientific enterprises ever undertaken in this country is being brought to conclusion in their very midst. There are still fewer Iowans

who will not be most agreeably surprised to learn that the foundations of this truly *oper magnum* were unearthed chiefly within the borders of our state. Yet no individual contribution to the natural history of our commonwealth, of the United States, or of the Western Hemisphere surpasses it in magnitude. Indeed, there are few Old World monographs of similar nature that at all approach, much less rival it. It stands as one of the masterpieces of American science.

The really remarkable feature concerning this great scientific work is that it was accomplished under difficulties and stress of circumstance that would have ordinarily been deterring to most persons. That the author who, in the midst of ardent business duties, should find time, opportunity, and inclination to penetrate the unknown realms of science and emerge therefrom with conspicuous achievement, is a circumstance deserving something more than passing mention. To his neighbors and fellow townsmen of Burlington he is known chiefly as a successful lawyer and business man. It does not often happen that a double tiara, of success in active professional life and in indefatigable scientific investigation, is worn by the same personage. Yet this man of affairs gives attention to matters of pure science and produces substantial results.

In these days of the so-called "strenuous life" we are only too prone to place undue emphasis upon the life of action, and to neglect the more quiet but nevertheless more important phases of life's work. One who makes a success of the usual active life of professional or commercial pursuits is deemed to have accomplished all that possibly could be expected of him in the short span of time allotted to him on earth. Grudgingly do we often accord to the man who has won laurels in the more secluded paths of intellectual activity the praise due him for an eminently successful career.

It is indeed something of an accomplishment for a citizen of a state like ours to win a place for himself among a select coterie of men of science in a country of one hundred millions of people, to attain during his generation especial prominence, to maintain himself as a commanding figure in his chosen branch of scientific activity, and to acquire something of an international reputation. It is certainly gratifying to friends of that citizen, because of his distinct personal achievements in whatever line of

intellectual endeavor it may be, that he touch the vanity of his home state. It is the peculiar effort of the one man in the million that counts in the advancement of human knowledge.

Yet such a man is the author of this great paleontological work on the world's rarest crinoids. As a son of Iowa and a former Burlingtonian who has achieved success in more than one walk of life, the personality of Frank Springer invites closer inspection. After graduation from the Iowa State University he was admitted to the bar in Burlington in 1869, along with his old time friends, Hon. Thomas Hedge and Hon. W. E. Blake. Several years of practice here in the school of such eminent lawyers as Henry Strong, Judges Tracy and Newman, Charles H. Phelps, and B. J. Hall, laid the foundations of future success in his profession.

In 1873, induced by the proposed extension of the Atchison, Topeka & Santa Fe Railway, he removed to Las Vegas, New Mexico, where he has spent much of his time since. His legal training in Iowa bore good fruits, and it was not many years before he found himself in command of an extensive and important business. His practice in time came to be chiefly in large cases before the United States Court of Claims, the territorial Supreme Court, and the Supreme Court of the United States.

Mr. Springer's successful conduct of a series of cases of great magnitude in the United States Supreme Court involving some of the largest property interests in the state brought him to the front rank of the New Mexican bar, where his position as one of its most distinguished members was now fully recognized throughout the Southwest.

In the famous Maxwell Land Grant litigation he was pitted against such antagonists as General B. F. Butler, Judge Broadhead, Hon. J. G. Carlisle, and the attorney general of the United States, in addition to some of the strongest members of the Colorado bar. His argument in one of these cases in the Supreme Court won for him the unusual compliment of personal commendation by the late Justice Samuel F. Miller, both privately and publicly expressed, after the case was decided.

Among regular clients were some of the largest corporations of the state, including the Maxwell Land Grant Company and the Atchison, Topeka & Santa Fe Railway, for both of which he was counsel for twenty-five years. Retired from active prac-

tice in the courts he still continued his connection in an advisory capacity with a number of his long time clients.

Mr. Springer has delivered many notable addresses. That, as president of the New Mexico State Bar Association, on "Land Titles in New Mexico," is considered a classic in the legal history of that state. It was ordered printed for distribution among the members of Congress, and laid the foundation for the creation of a special court of private land claims of which the former Iowan, Judge Reed of Council Bluffs, was appointed chief justice, and under which the titles to over thirty millions of acres of lands claimed under the government of Spain and Mexico were adjudicated.

As evidence of the place which he holds as a citizen and a lawyer it may be recorded that when the first reunion of Roosevelt's Rough Riders was held in Las Vegas in 1899, Mr. Springer was chosen to present the medal to Colonel Roosevelt, then governor of New York, on behalf of the people of New Mexico, which had furnished one-third of the regiment. At the celebration of the centenary of John Marshall's appointment as chief justice of the United States, held under the joint auspices of the two houses of the State Legislature, the Supreme Court and the New Mexico Bar Association, he was invited to deliver the principal oration, which was later published in Judge Dillon's "Collection of Marshall Day Orations."

A memorial address on President McKinley was also delivered under the auspices of the literary societies of the New Mexico University, which was published by them and for which he received the thanks of Mrs. McKinley. Portions of this address were quoted a year later in the papers at the late President's home in Ohio.

During the lifetime of another Iowa paleontologist, Mr. Charles Wachsmuth, also of Burlington, Mr. Springer worked in collaboration with him, spending his vacations with him for that purpose. Together they brought out a series of important works which culminated in their great monograph on the *Crinoidea Camerata*, which was published as a memoir of the Museum of Comparative Zoology, at Harvard University, and which was ranked as the authoritative work on the subject with which it dealt.

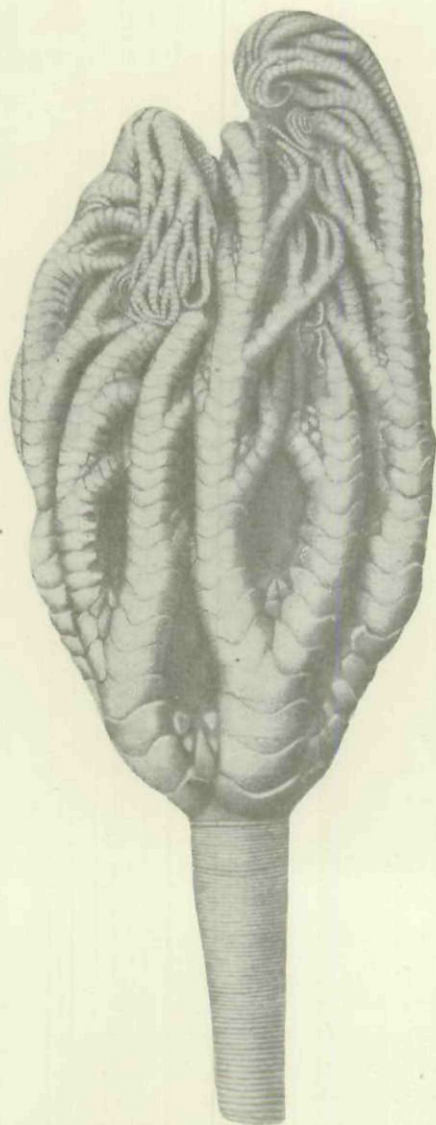
The magnificent memoir on *Uintacrinus* was based upon re-

markable specimens found in western Kansas, the like of which had never been seen before. Upon publication of this memoir fine sets of specimens were presented to seven of the principal museums of the world. In this country beautiful slabs of his donation are to be seen on exhibition in the Museum of Comparative Zoology at Cambridge, the National Museum at Washington, the American Museum of Natural History in New York, and in the universities of Chicago and Iowa.

In acknowledgment of the gift the directors of the American Museum issued a special publication giving a full account of the acquisition, illustrating it with two plates. At the Museum of Comparative Zoology the director, Mr. Agassiz, was so pleased that he caused the one sent there to be mounted under a plate glass four by eight feet in size and hung on the wall just inside of the front entrance of the building in order that, as he said, every one who entered the door might see it.

Mr. Springer thus outlines his latest effort: "It is a fresh illustration of the growth of knowledge that the division of the *Crinoidea* which forms the subject of the present memoir was not known at all to the earlier systematic writers who treated of the class; neither to J. S. Miller, with whose epoch-making monograph the systematic study of the crinoids as a group began nearly a century ago, nor to Johannes Mueller whose masterly researches upon the anatomy of the *Echinoderms* twenty years later laid the foundations for future investigations upon their structure. The magnitude of the group as now understood is shown by the size of this treatise—and the progress above alluded to is further exemplified by the manner in which the subject has expanded under my hands.

"When I began the study of the *Flexibilia*, after the death of Wachsmuth in 1896, it was part of a more ambitious plan to work up the two groups remaining after the *Camerata*; and of these it was supposed that the present group would be relatively a minor undertaking. I estimated that twenty-five plates would include all the necessary illustrations, and that these with the text would fall readily within the compass of a single volume. All the known material of this group in the museums of the world at that time did not occupy one-fourth of the space that is now required for the specimens of my own collection. Except for a few species, the *Flexibilia* are the rarest of all the fossil crinoids,



Rare old Stone Lily. (Drawing made by Edith Ricker of Burlington, Iowa.)

some forms being represented by a single specimen, and most of them by only a few. It was my early perception of the inadequacy of material, of the necessity of making further collections, and of examining as far as possible the types and other specimens from all sources, that has in part caused the long delay in the preparation and publication of this work. Far the greater part of the delay, however, has been due to the desultory character of my studies, arising from causes not within my control. The insistent demands of an exacting profession, and the claims of business affairs which absorbed the major part of my time, caused frequent and often long breaks in the prosecution of the work, the total of which must be measured in years.

"These interruptions, however, have not been without their compensating advantages; for during all this time the acquisition of new material, chiefly through the medium of collectors in the field, has been steadily going on, resulting in important additions to our knowledge of this group. And the broader grasp of the subject consequent upon this increase of knowledge has enabled me to place on a firmer basis certain family divisions, which would have been left in an unsatisfactory condition if I had published my results a few years ago.

"I think it only fair to observe further, by way of personal allusion, that I have labored under the disadvantage of a lack of practical zoological training, which compels me to limit my treatment of the subject chiefly to the presentation of the facts from a systemist's standpoint, without venturing far into the field of evolutionary interpretation. This I prefer to leave to others who are better qualified to undertake it, and it is my hope that this contribution to the sum of knowledge of these organisms may be of some service to those who engage in more general discussions.

"It was evident to me at the outset that the plan of restricting the detailed investigation of this group to its American representatives, as was done in the treatise on the *Camarata* by Wachsmuth and myself, was unsatisfactory. I have therefore endeavored to include in this work all known species of *Flexibilia*, from whatever areas they may be derived. Such an enlargement of the scope of the research added materially to the labor and difficulty of its prosecution, inasmuch as it became imperative to obtain accurate information in regard to the specimens contained

in foreign collections. The most important in relation to the present group of the *Crinoidea* are those in England, Sweden, Belgium, and North Germany."

Concerning this great monograph several features stand out prominently. The forms described are the rarest types of ancient crinoidal life. Mainly for this reason they are generally little understood. By dint of industrious accumulation of materials the means are found to evolve a classification which seems to be widely acceptable to students. Thus we bring order out of confusion. The investigation as now recorded and made public clears up many doubtful points relative to the genetic relationships of this long little known group of organisms.

Accomplishments of this kind impress us that the large achievements of mankind are not all wrought in marble monument. Greatest strides of human progress are oft indited in simple character on perishable papyrus roll.

Marvelous circumstance is it that the one monumental production in a principal branch of pure science during a quarter of a century and of global scope, should emanate from the mind of an Iowan far removed from the usual centers of consultation and constantly occupied with business affairs of large moment. Our state pride could have no nobler outlet than when its intellectuality bursts provincial bounds and takes on world-wide aspect.

We must beg the indulgence of our readers. Circumstances have compelled us, reluctantly, to devote a portion of our last two or three numbers to the benefit of a few humble Whig aspirants after fame. Having indulged their vanity by giving them the notoriety which they seemed to covet, we will now return to our regular and more useful employment.—*Territorial Gazette and Advertiser*, Burlington, Iowa Territory, August 8 1840. (In the newspaper collection of the Historical Department of Iowa.)

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