

## David Starr Jordan as a Literary Man

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Obscured by the brilliance of his triple career as a naturalist, teacher, and "minor prophet of democracy," David Starr Jordan's talent as a creative literary artist has not been adequately appreciated. As a scientist he was the author of several hundred coldly factual monographs on ichthyology, and was chosen president of the American Association for the Advancement of Science; as a professor and university president he served for thirty-seven years at Indiana and Stanford, and acted as chairman of the National Education Association; and as a worker for world peace he was internationally known as a lecturer, dean of the American section of the Hague Peace Conference in 1913, and recipient of a \$25,000 peace prize. But in the realm of creative literature Jordan also had ability and versatility not generally recognized. Not only a clever versifier and disarmingly human autobiographer, he belonged, as a nature-essayist, to the worthy school of John J. Audubon, Henry D. Thoreau, John Burroughs, and John Muir.

When Leland Stanford was searching in 1891 for a capable administrator for his new university, President White of Cornell urged him:

Go to the University of Indiana; there you will find the president, an old student of mine, David Starr Jordan, one of the leading scientific men of the country, possessed of a most charming power of literary expression . . . and blessed with good sound sense. Call him.<sup>1</sup>

Another of the very few references to his effectiveness and charm as a writer appeared in the early 1890's:

Some of these sketches<sup>2</sup> are marked by a union of sound knowledge, with a whimsical humor and delicate fancy which is sufficiently rare among men, whether scientific or literary, and which goes far to convince readers that Jordan might have attained a place in literature perhaps as distinguished as his place in science.<sup>3</sup>

When his resignation of the active presidency of Stanford in 1913 focussed public attention upon him, another commen-

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<sup>1</sup> Orrin L. Elliott, *Stanford University, The First Twenty-five Years* (Stanford University, California, 1937), 40.

<sup>2</sup> David Starr Jordan, *Science Sketches* (Chicago, 1887). This volume was published while he was president of Indiana University.

<sup>3</sup> Melville B. Anderson, "A Sketch of David Starr Jordan," in *Popular Science Monthly*, XLIV (1893-1894), 548.

tator surveyed his "prose that is now delicate and subtle, now direct and energetic"; his "verse that is sometimes humorous and again in a high mood of fancy," and concluded: "Writing, indeed, is one of his peculiar gifts."<sup>4</sup> Although Jordan himself did not include an author's career in his "three separate lives"—research scientist, university leader, and active pacifist—he did admit to an interviewer just two years before his death in 1931 that creative writing had been a pleasurable hobby. "I wrote when I had anything to say and spoke when I thought I had a message."<sup>5</sup> Hence a rapid review of what he had to say might clarify and help complete the portrait of this gifted man who was so prominent in Indiana's educational history.

Primarily as *jeux d'esprit* appear the verses in *Eric's Book of Beasts*,<sup>6</sup> written, with his own appropriately fantastic cartoon illustrations, "one by one in moments of leisure to please a small boy"—his son. Worthy of inclusion in the best of nonsense anthologies, these creations are prefaced by the statement:

I write and paint in doggerel  
Though all the Muses shriek and yell!

From a world-renowned scientist the entries, even without the complementary pictures, are very unpretentious, very amusing. With a flavor of parody, anent a toothy crocodile surveying a tail-swinging monkey:

This Reptile is a hardened sinner;  
But when a friend drops in for dinner,  
He greets him with an open smile  
And makes him merry quite a while.  
O let us, like this Reptile, be  
Renowned for hospitality!

Illustrated by the sketch of two very hairy uncouth creatures, "Old Time Folks":

These twain our ancestors must be  
(Arboreal, undoubtedly)  
But this is true; it seems to me  
If Adam looked like this and Eve,

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<sup>4</sup> Isaac Russell, "David Starr Jordan," in *World's Work*, XXVII (1914), 653.

<sup>5</sup> Frank J. Taylor, "Three Lives in One, and Always Ahead of His Time," in *American Magazine*, CVII (1929), 22.

<sup>6</sup> This was published in San Francisco in 1912.

(With no intention to deceive)  
Thus in Creation's Rosy Dawn,  
I'm glad that I came later on.

Also primarily for juvenile readers was *The Book of Knight and Barbara*,<sup>7</sup> his children. In this, indicative of a facile pen, is a versified version of "The Siege of Troy" done in limericks and foot-noted in a highly scholarly manner. "From an ancient manuscript" the account of the equestrian construction is related; then—

We tied the great horse to a tree,  
Then the Trojans all came out to see;  
But never a squeak  
Did they hear from a Greek,  
"All aphone now," says Nestor, says he. . . .

"When Sleep spread her wings over Troy," the attackers slipped out, but in lieu of slaughtering the inhabitants the invaders chose to transfer them, still sleeping, to the vacant interior of the horse:

Then the Trojans got up, rubbed their eyes,  
And each said, "Well, this *is* a surprise.  
I was safe in my bed,  
But now I've been fed  
To this monster in equine disguise. . . ."<sup>8</sup>

And a final example of this lighter verse may be found in a famed quatrain inspired by contact with certain Chinese fishermen in San Francisco who exported all their dried catch to the homeland:

Mellican man go China side  
Catchee China dishee;  
China man go Mellican side  
Catchee Mellican fishee."

Much of Jordan's serious poetry was occasional or personal—stemming from the immediate situation or from the familiar relationships which he enjoyed. An inveterate trav-

<sup>7</sup> The stories were first told to his own children but were later used in experimental schools in California and Washington, D. C., as material to be illustrated by the pupils. The volume was published in 1899 in New York.

<sup>8</sup> "The Siege of Troy" was reprinted in the appendix of his autobiography, *The Days of a Man* (2 vols., New York, 1922), I, 704-06.

<sup>9</sup> *Ibid.*, I, 221. One essayist (see *supra* note 4) eruditely but incorrectly labeled this as Jordan's solution to the "Alaskan fisheries dispute with China"!

eler in his world-wide search for new species of fish, he frequently recorded his impressions in rhyme. In 1894 from the singularly picturesque port of Mazatlan in the Mexican state of Sinaloa, where "the narrow harbor, sheltered by tall, craggy islands . . . opens near a noble beach, 'Las Olas Altas' . . . constantly pounded by the great surf of the sea" come these lines, suggestive perhaps of a more optimistic "Dover Beach":

. . . We stand tonight on an enchanted shore;  
The warm, slow pulse of the great Summer Sea  
Rises and falls the night long, ceaselessly,  
Beating its one grand rhythm evermore.  
See where before us the stark moonlight falls  
On Isla Blanca's bare volcanic walls—  
Some shapeless monster breaking from the deep,  
Lashing the waves in rising from his sleep!  
. . . . .  
Perchance, dear heart, it may be thou and I,  
In some far azure of infinity,  
Shall find together an enchanted shore  
Where Life and Death and Time shall be no more,  
Leaving Love only and eternity.  
For Love shall last, though all else pass away,  
The harsh taskmaster that we call Today . . .  
Then this great earth we know shall shrink at last  
To some bare Isla Blanca of the past—  
A rock unnoted in the boundless sea  
Whose solemn pulse-beat marks Eternity. . . .<sup>10</sup>

Several poems were suggested by his trips to Alaska where he went among "the savage, swart Smoke-Islands" on governmental investigations of the fur-seal industry. A visit to France inspired him to write "Vivérois," considered by E. C. Stedman worth including in his American anthology.<sup>11</sup> "Beyond the sea, I know not where," lie the cloud-castles of this dream-city. But a more concrete metropolis, "with tile-roof red against the azure sky," was his own new Palo Alto university, modeled architecturally on the mellowed picturesqueness of the San Juan Capistrano mission. Other California verses range from an invocation to "Santa Clara Virgen y Mártir" and a commemoration of Leland Stanford, Sr., to the rollicking "Rhyme of the Palos Verdes."<sup>12</sup> But

<sup>10</sup> *Ibid.*, I, 527-28.

<sup>11</sup> Edmund C. Stedman (ed.), *An American Anthology* (Boston, 1900), 579-80. See also *The Days of a Man*, I, 332-33.

<sup>12</sup> *Ibid.*, I, 375, 388-89, and 206-07, respectively.

of all the poetry published in contemporary magazines or in his autobiography or collected sketches, his favorite (and one of the most lyrical) was "The Bubbles of Sáki," in which he expresses a philosophy of practical optimism in refutation of the musical melancholy of the original poet:

In sad, sweet cadence Persian Omar sings  
The life of man that lasts but for a day;  
A phantom caravan that hastes away,  
On to the chaos of insensate things.

"The Eternal Sáki from that bowl hath poured  
Millions of bubbles like us and shall pour,"  
Thy life or mine, a half-unspoken word,  
A fleck of foam tossed on an unknown shore.

But tell me, Omar, hast thou said the whole?  
If such the bubbles that fill Sáki's bowl,  
How great is Sáki, whose least whisper calls  
Forth from swirling mists a human soul!

I do rejoice that when "of me and thee"  
Men talk no longer, yet not less, but more,  
The Eternal Sáki still that bowl shall fill,  
And ever stronger, purer bubbles pour.

One little note in the Eternal Song,  
The Perfect Singer hath made place for me;  
And not one atom in earth's wondrous throng  
But shall be needful to Infinity.<sup>13</sup>

As a prose stylist in his own story, *The Days of a Man*, Jordan is direct, easy, informal, and dryly humorous. Essentially an expanded diary, his thousand-page autobiography according to one capable reviewer "has its drawbacks of diffuseness and mixing of subject matter and, one must perhaps admit, of overmuch detail."<sup>14</sup> The straight chronology of events is unquestionably broken by frequent references to connoted happenings or associated personalities, but the interest of the narrative is strong. And in spite of the author's unassuming manner there emerges for the reader

<sup>13</sup> David Starr Jordan, *The Story of the Innumerable Company, and Other Sketches* (San Francisco, 1896), 293-94.

<sup>14</sup> Vernon Kellogg, "Dr. Jordan's Autobiography," in *Science*, n.s. LVII (1923), 361.

the reality of "a highly intelligent and informed man, of robust, forthright character, working always with a steadfast aim to be useful to the youth and to the public and government of the American nation."<sup>15</sup>

The story of his early days in western New York, his old brown farmhouse home—"it had been a wayside inn, a habit never quite abandoned"—his early love for the woods with its creeks and birds and fishes, his growing recognition of his father as a personality—"I found him surprisingly interesting and friendly"—his juvenile adventures, explorations, loves and fears—these and many more items are spun together into one of the most effective accounts in American literature of the mind and deeds of a growing boy.

While husking corn on crisp autumn evenings he developed his first scientific interest, in astronomy; and at the age of thirteen had completed a series of complicated star-maps. Then he turned toward geography with more map-making; but geology, ornithology, and botany claimed his attention as well, and Asa Gray's *Manual* was well-thumbed. But his first scientific paper, published when he was only twenty, was a practical discussion of hoof-rot in sheep and a cure which he had developed for his own flock.

With a taste for reading sharpened by *David Copperfield*, *Vanity Fair*, and the early tales of Bret Harte, the youthful Jordan also read such poets as Lord Byron and Thomas Moore. But he says:

My keenest literary satisfaction was derived from *The Atlantic Monthly* . . . . The *Atlantic* essays of Emerson, Holmes, Lowell, and above all Thoreau, had a good deal to do with shaping my intellectual tastes and in strengthening my fundamental ideals of democracy.<sup>16</sup>

After outgrowing the district school at the age of fourteen—"being thought a youth of promise and otherwise apparently harmless"—Jordan was admitted to the only other school in the neighborhood, the Gainesville Female Seminary. Then after a successful term as teacher in an unruly country school he was ready for Cornell, where he joined one of the boarding clubs. "This impecunious table venture was known in

<sup>15</sup> *Ibid.*, 361.

<sup>16</sup> *The Days of a Man*, I, 30.

the early days as 'The Struggle for Existence,' familiarly 'The Strug.' On the campus young Jordan showed an unusual aptitude for botany; and in spite of his success as a baseball player was, in his junior year, appointed instructor in the botany department; and at the end of his four-year course was awarded the master's as well as the bachelor's degree.

After a year of teaching natural science in Lombard College in Illinois Jordan spent the most influential summer vacation of his career on Penikese Island with Professor Agassiz. Asked by that great scientist to undertake a study of the fishes of the region, he became definitely interested in ichthyology, to which he devoted the major part of his mature scientific effort.

He continued his science teaching, first in the Appleton, Wisconsin, Collegiate Institute; then in the Indianapolis High School where he prepared his "first real contribution to science," *Manual of the Vertebrates of the Northern United States*. After marrying in 1875 a girl whom he had met at the Penikese school, he was appointed professor of biology at Butler University (then known as Northwestern Christian) where he taught for four years before going to the State university in Bloomington<sup>17</sup> as successor to the famous Richard Owen in the chair of Natural History. Constantly carrying on far-flung field trips and research work in ichthyology, he was greatly surprised to have the presidency of that institution offered to him in 1884—"an outcome as undesired as unexpected, for my ambition ran entirely in the direction of Natural History."<sup>18</sup>

From this point on, David Starr Jordan's career is so well known that details are superfluous. As the youngest university president in the country he successfully arranged for state appropriations, a liberalization of the curriculum, and the erection of new buildings; and popularized the Uni-

<sup>17</sup> "Presumably, however," he said, "we made a modest impression upon our arrival in town, for the official committee who came to meet me returned to the college reporting that 'the Professor was not on the train. No one got off but two drummers. . . .'" *Ibid.*, I, 185-86.

<sup>18</sup> *Ibid.*, I, 289.

versity by speaking in every county in Indiana.<sup>19</sup> His energy and executive ability so distinguished him that Leland Stanford, Sr., chose him to administer the affairs of the new University in Palo Alto, where he weathered the lean years during the settlement of the estate, rebuilt the campus after the disastrous earthquake of 1906, and generally shaped Stanford into its present form among the outstanding institutions of the country. Giving up his official duties in 1913 in order to have more time to devote to his crusade for world peace, he lectured all over Europe and wrote trenchant documents on the biological waste and the philosophical futility of international bloodshed. But it is probable that his greatest renown will remain in the field of science, for as he summarizes:

Of the species of fish now known—between 12,000 and 13,000 in number—my former students and myself discovered more than 2500 during the course of our various investigations. Of the 7000 genera, actual and nominal, . . . 1085 are to be credited to us.<sup>20</sup>

But more significant than either his versifications or extensive autobiography are Jordan's nature essays and natural history tales. Indeed, he must be credited with the "discovery" of a new literary genus as illustrated by "The Story of a Stone," published in *St. Nicholas* in 1877 while Jordan was still at Butler: "It was the first in date of all the 'nature stories' for children, of which so many have been written in recent years by naturalists—and others."<sup>21</sup> But it is a very sophisticated adult who is beyond appreciation of such an account, for as Jordan once remarked, he wrote these stories "for naturalists and for children." Here with a bit of fossil honeycomb coral, the Silurian *Favosites*, the

<sup>19</sup> Concerning his presidency he wrote to a friend: "The best things I did there were these two: The introduction of the elective system of study . . . . With better and more enthusiastic work both for teachers and students it brought a notable increase of numbers. Bloomington was placed on the map and the state university . . . came to stand where it belonged, at the head of the school system of Indiana." See Charity Dye, *Some Torch Bearers in Indiana* (Indianapolis, 1917), 136. For details see James A. Woodburn, *History of Indiana University* (Indiana University, 1940), I, 360-400.

<sup>20</sup> *The Days of a Man*, I, 288. Concerning a typically technical report of findings he once laconically remarked: "Like most papers of that type, it was useful mainly to the author. . . ."

<sup>21</sup> *Ibid.*, I, 122.



teller vivified the geological history of Wisconsin. Soon a sequel, for he says:

As a literary aftermath of our investigations on the Columbia and a sort of companion piece to my "Story of a Stone,"<sup>22</sup> I wrote "The Story of a Salmon" . . . . This has been reprinted more frequently than anything else from my pen; being readable and accurate, it perhaps deserves its vogue.<sup>23</sup>

Here the reader at once appreciates the rich imaginative re-creation of nature coupled with an authoritative sense of fact:

In the realm of the Northwest Wind, on the boundary-line between the dark fir-forests and the sunny plains, there stands a mountain,—a great white cone two miles and a half in perpendicular height. . . . Flowing down from the southwest slope of Mount Tacoma is a cold, clear river, fed by the melting snows. . . . Madly it hastens down over white cascades and beds of shining sands, through birch-woods and belts of dark firs, to mingle its waters at last with those of the great Columbia. This river is the Cowlitz; and on its bottom, not many years ago, there lay half buried in the sand a number of little orange-colored globules, each about as large as a pea. . . . In the waters above them little suckers and chubs and prickly sculpins strained their mouths to draw these globules from the sand, and vicious-looking crawfishes picked them up with their blundering hands and examined them with their telescopic eyes. . . .

But one, at least, of these salmon eggs escaped; and hatching into "a curious little fellow, not half an inch long, with great, staring eyes, which made almost half his length," the little fish eluded his cannibalistic fellows, thrived, backed with the current down to the ocean, and spent three years in growing up to weigh twenty-two pounds. Then feeling the irresistible lure of the mountain stream again, he fought his way past the Columbia nets and canneries, up the Cascades and through "the terrible flume of the Dalles," on up the Snake to the foot of the Bitter Root Mountains in Idaho. Then having covered the eggs of his companion he completed his life work; and sluggish and exhausted after his thousand mile swim, he was clubbed by a settler and thrown to the hogs. But the head, picked up by a wandering naturalist,

<sup>22</sup> This essay was reprinted in *Science Sketches*, 196-203.

<sup>23</sup> *The Days of a Man*, I, 241. The essay first appeared in *Popular Science Monthly*, XIX (1881), 1-6.

was sent in for government identification; and "thus it came to me."<sup>24</sup>

One of the most appealing of these nature-tales is "The Story of Bob,"<sup>25</sup> a simian "prince of the tribe of *Cercopithecus*" from the jungles of Borneo. Bought from a Kearny Street curiosity shop by a group of Stanford students, Bob was used as an animated biological specimen. At first afflicted with a louse-like parasite, "Bob did not try to conceal this fact; he made it the joy of his leisure." His reactions to snakes, salamanders, horses, coyote and wildcat skins, his playmates Nanette and Mimi, and the Jordan family dog, all are skilfully and whimsically chronicled. "Rover looked down on Bob with tolerant contempt, as a disagreeable being, not to be shaken like a rat because possibly human." But eventually growing too short-tempered Bob was sent back to his pet shop "where red-tailed parrots scold and swear." And there in a little iron cage "he waits until his ransom is paid again."

"Old Rattler and the King Snake" humanizes the herpetology of King's River Cañon in the California Sierras. With all the suspense and action of Kipling at his best, Jordan stages the sharp clash and struggle of "Glittershield" and his mortal enemy, "Old Rattler." When the smaller snake has broken the rattler's neck and succeeded in the apparently impossible task of swallowing the victim "while the venom trickled down his throat like some fiery sauce," the gallery, a Disney-like chipmunk, "ran out on a limb above him, pursed up his lips, and made all kinds of faces, as much as to say, 'I did all this, and the whole world was watching while I did it.'"<sup>26</sup>

But among the various sketches of this type the longest and most memorable is *The Story of Matka*.<sup>27</sup> On its appearance in 1897 B. O. Flower commented in his liberal review, *The Arena*: "Though it is done in prose it is none the less a poem; it is the Saga of the Seals. . . . Dr. Jordan in

<sup>24</sup> *Science Sketches*, 9-19.

<sup>25</sup> *Popular Science Monthly*, XLIV, 145-53.

<sup>26</sup> *Ibid.*, LVI (1899-1900), 371-74.

<sup>27</sup> The first edition appeared in 1897, but its plates were destroyed by the earthquake and fire of 1906. It was republished in San Francisco in 1910, and a revised edition was sponsored by Mrs. Jordan in 1923.

'Matka and Kotik' vindicates his right to be known as the American Poet of Science."<sup>28</sup>

Appointed Chief Commissioner in charge of studying the fur-seal situation in Alaska and the Bering Sea, Jordan with a number of governmental colleagues went to the Arctic Circle in the summer of 1896. There on the Pribilofs and the Komandorski Islands they discovered that the seal rookeries had been literally decimated by illegal and inhumane pelagic slaughter of gravid females, whose pups on shore likewise died as a result of starvation. Incensed by the avarice and cruelty of the fur-hunters, Jordan not only sent in properly technical reports to Washington, but turned as well to true fiction in order to reach the public more directly:

During the summer, a few days of enforced idleness [after an enraged bull-seal had knocked him over a cliff] gave me time to write "The Story of Matka," my own best animal tale and, in its way, the best of its kind, each incident being drawn from actual happenings (as vouched for in every case by photographs) and the local color being therefore absolutely genuine . . . "Matka" thus differs totally from the ingeniously clever "White Seal" of Rudyard Kipling.<sup>29</sup>

For a reader with any sympathy or liking for animals the pathetic appeal of this story is tremendous. In spite of its propagandistic purpose—or perhaps because of the strong feelings of the writer—the name-characters come humanly alive; and in their struggles the reader vicariously participates.

This is a true story, for I knew Matka before Kotik was born, when she was very beautiful. From the little window of the cabin in which I write these words I can look across the salt lagoon and the mossy hills of the Mist-Island, blue with harebells and spring violets, to the black Tolstoi Head where the great surf is breaking. . . . Here, among the broken columns of black basalt, was Matka's home and here Kotik was born . . . .<sup>30</sup>

The roly-poly pup played with his fellows, learned to swim, evaded the blue foxes that called "'clin-n-g' like a scared buzz saw," watched in wonder the struggles of the "beach-master" bulls, and but vaguely comprehended the drives of the super-

<sup>28</sup> *Arena*, XVIII (1897), 285.

<sup>29</sup> *The Days of a Man*, I, 560. In Kipling's tale (c. 1893) the same names, "Matkah" and "Kotick" occur (Russian for "mother" and "pup"). But here the albino Kotick as the romantic saviour of his people leads them to new and safer havens.

<sup>30</sup> Jordan, *Matka and Kotik*, 15.

fluous bachelor-seals to the annual slaughter. Maturing, he went on the yearly migrations southward but always returned to the Tolstoi Beach. But now the

dreary days have come to the twin Mist-Islands. The ships of the Pirate Kings swarm in the Icy Sea. . . . The blood of the silken-haired ones, thousands by thousands, stains the waves as they rise and fall. The decks of the schooners are smeared with their milk and their blood, while their little ones are left on the rocks to wail and starve.

And on the golden Zoltoi beach "we found Matka dead . . . with the cruel spearhead fast in her velvet neck"; while her youngest pup, Lakutha,

waited for her on the flat top of a broken column, close to the water's edge, calling across the surf day after day. . . . I turn my eyes from Tolstoi Head and put aside my pen. . . . It is growing very chill. The mist is rising from the Salt Lagoon, and there is no brightness on the golden sands.

In addition to these humanized nature tales, Jordan produced a series of noteworthy descriptive essays which may be only briefly mentioned here. Ranking with the best of Burroughs and John Muir they include a group on California: "The Alps of the King-Kern Divide,"<sup>31</sup> "California and the Californians,"<sup>32</sup> and a historical sketch of the Spanish missions, "The California of the Padre."<sup>33</sup> The recently discovered wonders of Yellowstone appear in "The Story of a Strange Land";<sup>34</sup> the mystery of the Indian Southwest in "Red Letter Days—The Enchanted Mesa";<sup>35</sup> and superbly vivid accounts of European rugged country in "An Ascent of the Matterhorn,"<sup>36</sup> and "The Conquest of Jupiter Pen"<sup>37</sup>—a picture of the Alps and the Hospice of Saint Bernard.

<sup>31</sup> This was reprinted as a booklet, in San Francisco in 1907, from the magazine *The Land of Sunshine*, XII (1900), 206-12.

<sup>32</sup> *Atlantic Monthly*, LXXXII (1898), 793-801. Several reprints followed.

<sup>33</sup> *The Story of the Innumerable Company*, 87-132. Other general sketches may be found in *Fish Stories* (New York, 1909), which was written in collaboration with Charles Frederick Holder.

<sup>34</sup> *Popular Science Monthly*, XL (1891-1892), 447-58.

<sup>35</sup> *The Land of Sunshine*, IX (1898), 124-26. This story was reworked in his autobiography, *The Days of a Man*, I, 626-37.

<sup>36</sup> *Science Sketches*, 204-27, where it was reprinted from *Our Continent*, II (1882), 545-50.

<sup>37</sup> *The Story of the Innumerable Company*, 137-74.

Another European sketch, one of the most effective of the descriptions of the Oberammergau celebrations, is Jordan's "The Story of the Passion."

Another series of essays is primarily biographical and critical. Ranging from Ulrich von Hutten born in 1488, to Thoreau whom he calls "the last of the Puritans," the subjects include such scientists as Charles Darwin, the eccentric but influential Constantine Rafinesque, a Cuban ichthyologist Don Felipe Poey,<sup>38</sup> and Richard Owen.<sup>39</sup> With a peculiar sense for the significant and the vivid, Jordan endows these men with life and pertinence.

Less extensive but nevertheless interesting references to many American men of letters, occurring as *obiter dicta* in his autobiography, indicate that Jordan, as well as contributing to current literature, also had frequent contact with better known writers. A student of Bayard Taylor at Cornell, Jordan in his college days chanced to be seated beside one of his favorite authors, James Russell Lowell, at a church service—"a seat among the gods." In Indianapolis a close friend of James Whitcomb Riley—whom he later invited to give readings at Stanford—he also knew the romantic novelist, Maurice Thompson. At the University in Bloomington Jordan welcomed as lecturers Henry George, Bronson Alcott, Henry Ward Beecher, and possibly Wendell Phillips. In San Francisco he made the acquaintance of John Muir, "a young Scot"; and as recompense for having passed Robert Louis Stevenson unknowingly on the street he made in after years a pilgrimage to Stevenson's Samoan home. Joaquin Miller, "the most picturesque personality on the coast," was invited to lecture at Stanford; Edwin Markham, then principal of the Oakland Practice School, Mary Austin of "clean and perfect artistry of phrase and figure," genial Bailey Millard of the San Francisco *Bulletin*, and Hamlin Garland were friends or acquaintances. Jack London, too, as a student in Jordan's Oakland university extension classes in evolution, was influenced by him, and later accepted the invitation to read some of his Alaska stories at Stanford. And in Jordan's wide ramblings over the United States he was always in-

<sup>38</sup> The last three essays are found in *Science Sketches*, 171-95, 143-59, and 160-70, respectively.

<sup>39</sup> *Popular Science Monthly*, LI (1897), 259-65.

terested in comparing the actualities of the various regions with the literary concepts that he had built up from the writings of such authors as Thoreau, Mary N. Murfree, Edward Eggleston, and G. W. Cable.

So, ten years after the death of a great scientist, educator and pacifist, a student of his career may look back and discern the sharp and undying outline of his work in his three major fields. But in addition, David Starr Jordan's triangle of achievement should be squared to include a worthy contribution to American literature in the realm of facile verse, honest autobiography, and accurate and effective nature sketches and essays.