

designates the country in which the Society has its seat, and to which the work of our members should bring increasing honor as time goes on.

The Society adopted this design, and five hundred copies were ordered to be printed. By mid-October they were ready, and were signed by President Holden and the two secretaries, Schaeberle and Burckhalter. The diploma continued to be issued over the next two decades to all new members. Today, very few copies of the original diploma remain in public and private archives, and a much smaller membership card has replaced them as the Society's membership has grown into the thousands.



The original seal of the Astronomical Society of the Pacific. (A.S.P. archives.)

Chapter 5:

Continuing Growth

By the time of the second annual meeting of the Society in March of 1890, President Holden could point with pride to the activities of the past year. In his address as retiring President, he noted that as of that date the Society had 192 members, distributed geographically "from London to Venezuela, from Mexico to British Columbia, and in the United States from Boston and New York to California." In addition, almost 100 observatories and libraries around the world were receiving the *Publications of the A.S.P.* These *Publications* had chiefly contained the work of Lick Observatory astronomers and students, but Holden still hoped to get papers from elsewhere, and especially from the amateur members.

The Society had benefitted from the gifts of Donohoe and Montgomery. Other members had made substantial contributions to astronomical research, such as Col. C. F. Crocker's expedition sent to South America to observe and measure a solar eclipse in December 1889. Holden urged the members to "help to place before the people of our State, directly and indirectly, the purposes for which observatories are founded and the problems which astronomy has now to consider... The members of the Society already exert a very wide personal influence to increase the general interest in astronomy, and this will grow from year to year."

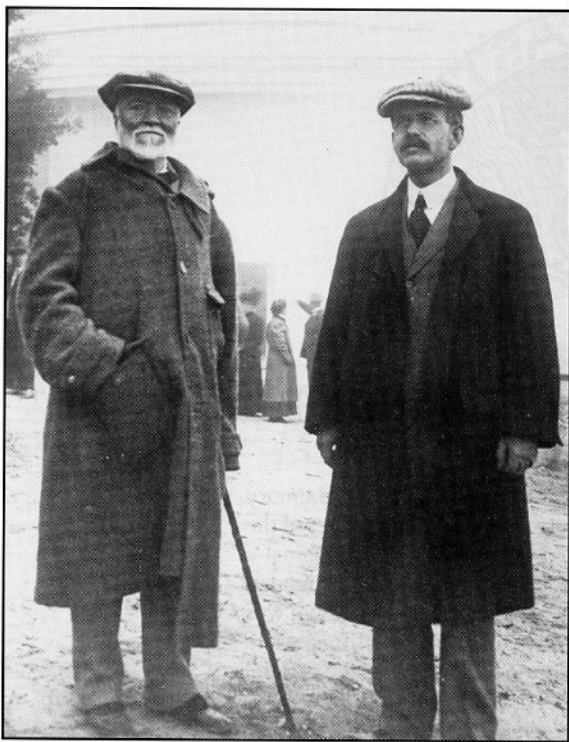
At the same meeting, the Society voted to solicit a design for a Society seal. During the ensuing year, W. Lewis Fraser, Art Editor of *Century Magazine*, super-

vised the design, and the seal was adopted on January 31, 1891. It showed the god Mercury (messenger of the heavens) with his winged feet and his staff, against a background of stars, Moon, and clouds and surrounded by a rim bearing the name of the Society. This seal was immediately added to the membership certificates and to the cover of the *Publications*, as well as to the official A.S.P. stationery and other printed materials. The same design was still in use on the *P.A.S.P.* in 1970, with the founding date below it; since then a slightly modernized and redrawn version has been used.

Holden felt that the presidency of the Society should pass to one of the amateur members, William Pierson, and he wrote to Treasurer Molera to that effect in October 1889. Molera's reply was quick and vehement: "I cannot grant your request, i.e. to aid you in nominating, canvassing [sic] or voting for any person for President of the Astl Sc, excepting Edward S. Holden. It is no use for you to argue with me, I am a Catalanian... Now I take an uncompromising stand: I will not aid you in any way, and will fight you in this matter tooth and nail. If you are reasonable and consent to serve the coming term, then I promise next year to let you have your own way." Holden evidently gave in, for he was re-elected at the 1890 annual meeting to a second term as president.

Molera, who was trained as a civil engineer, was a charter member of the A.S.P. and its first treasurer; but he resigned this position in June 1890, after some aspersions had been cast on his bookkeeping methods. These complaints may have been justified, if the following note (now in the Lick Observatory archives) from Molera to Holden about a bill is any indication: "Yes: I paid the bill, but it does not appear in my check book as I paid you cash when eating an oyster omelette at Govey's restaurant. It is marked on the bill. — I did not think that that excellent dish would take your memory off." Molera did, however, continue on the Board of Directors of the A.S.P. for over a decade, and served as a vice-president for four years, and as president in 1893.

In November 1890, another step towards broadening the Society was taken with the amending of the bylaws to permit the creation of local Sections. This option permitted groups of A.S.P. members living in the same area to work more closely together and to have regular meetings. A group of nearly 30 members in the Chicago area, organized by George Ellery Hale, formed the first such Section. Holden recognized the advantages of such close association of members, as well as the potential danger that a Section might become too in-



By 1893, the Society's membership of 493 included not only prominent astronomers like George Ellery Hale (right) but powerful figures from other walks of life such as his benefactor Andrew Carnegie (left). (Photograph courtesy of the Mount Wilson Institute.)

dependent. But he felt that if such groups were "tolerably large and likely to be active" they should succeed, and he commended the Chicago Section as "an admirable model."

One of Holden's main concerns at this time was the *Publications*, since these formed the sole contact with the Society for the 140 or so members not located close to San Francisco. "Their scope must be as wide as the interests of the individual members, and their quality should be of the highest...we should strive to be as simple as practicable, as rigorous as the subject demands, as lucid and clear as it is possible to be, and entirely fearless and fresh." He felt that the first two years of the *Publications* pointed the direction to go, and was pleased to have articles from authors not just at Lick, but from all over. His only disappointment was that the local newspapers had not picked up and reprinted any of these, and he speculated that perhaps "they need another dilution before they can be used in this most useful way."



F. R. Ziel in 1895. Ziel, who became the Society's treasurer in 1891, sent bill collectors after some members who fell behind in their dues. The Society no longer continues this practice. (Photograph courtesy of the Mary Lea Shane Archives of Lick Observatory.)

At the end of his second year as president, Holden again gave a retiring president's address (and this time he really did retire), pointing to the growth of the Society from 40 to 360 members in two years, with 26 states and 15 foreign countries represented. The next several years saw a steady increase in the Society's membership and activities. By 1893 there were 493 members (a high not exceeded till 1926). These included well-known astronomers such as G. W. Ritchey, and David Gill; rising young astronomers like W. W. Campbell and F. H. Seares; and wealthy lay members such as Charles F. Crocker, John Dolbeer, Andrew Carnegie, Mrs. Phoebe Hearst, Baron Albert von Rothschild, and members of the Spreckels family.

This large membership was achieved despite the fact that quite a few of the original founders dropped their membership after a few years. For example, the photographers of the PCAPA found, in many cases, that astronomy was not their first love; Archie Treat left the Society in 1891, and several others followed suit. F. R. Ziel, the new treasurer who succeeded Molera in 1891, set to work trying to collect back dues from some of the delinquent members, even sending bill collectors after some of them; this must have hastened the departure of those not deeply committed to the A.S.P.

Charles Burckhalter's enthusiasm for the growth of the Society continued unabated during its first several years. When Professor David Gill of South Africa and noted amateur John Tebbutt of New South Wales joined in March of 1890, Burckhalter wrote jubilantly to Holden: "Dr. Gill's praise is certainly something to be proud of, for he is none too liberal with it as a rule... This now gives us members on every continent. I am, however, becoming impatient at the indifference of Afghanistan and Upper Egypt." He returned periodically to this theme, which must have been a standing joke between him and Holden. In August of 1890 he wrote: "I see Brazil has come in out of the wet. This revives my hope of Afghanistan." In May of 1891, "Afghanistan is looming up! I note your last candidate — H. Barrymore Harrison, Jask, Persian Gulf." But in March of 1892, "We have members in 23 foreign countries... I am in the dumps now about Afghanistan. Do you know anyone there? I'll pay his first year's dues if you can get him." Despite this offer, and the addition of 61 new members during 1892, no resident of Afghanistan came forth. But the international character of the Society has continued throughout its history.

President Pierson, at the conclusion of the Society's third year, commented that "The Society has steadily advanced from its feeble beginning, and today finds itself a permanent, a practical and a prosperous organization." He went on to urge even more support from the members: "If each of us would introduce one new member during the coming year, the Society would be enabled to greatly extend its sphere of usefulness and its advantages to science and to ourselves."

As an amateur, Pierson wanted particularly to en-

courage the Society to instruct and aid the non-professional members. He wrote: "The difficulty...that I, as a novice, first encountered in astronomy was that, after understanding the general outlines of its descriptive department, I was at a loss where to begin or what to do in the way of observation." He proceeded to make some suggestions for other amateurs: choose a specific goal to pursue, and be sure to "make notes at once of what you observe, with all the details possible. Trust nothing to your memory... Remember that celestial phenomena occur but once, and you may happen to be the only person to have observed that one." Photography offered another way in which amateurs could make useful contributions. And with all this, he counseled patience: "Do not expect to discover a planet or a comet the second night you observe." This is still good advice today!

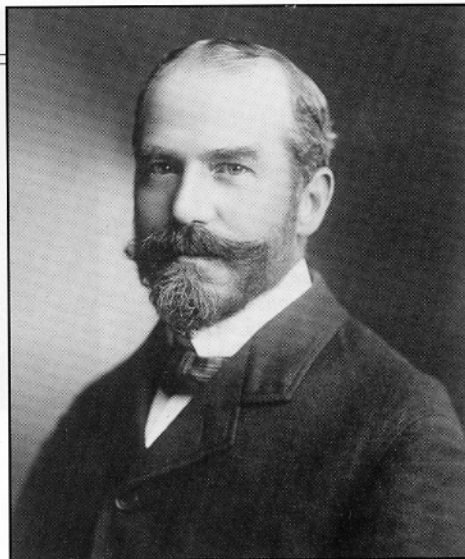
Chapter 6:

Challenges and Difficulties

The year 1893 saw the creation of a second A.S.P. Section, in Mexico City. Much of the impetus for this probably came from Molera, who visited there early in the year. He was impressed with the facilities of the National Astronomical Observatory at Tacubaya, and praised the expertise of its seven staff members. He felt that Mexican members would benefit greatly by the frequent meetings which would ensue as a result of their organization into a Section, and also by the receipt of the *P.A.S.P.*, although they "are printed in a language foreign to their vernacular." He concluded that "The Mexican Section of our Society is ... in good hands, and its success is assured."

But despite his confidence, the existence of Sections seems to have been an idea that did not prove effective. By 1905 the *Publications* stopped listing the Chicago and Mexican Sections, as they had done up until that time, presumably because they were no longer active.

During the 1890's the *Publications* appeared bi-monthly, as they continued to do until 1983, when they became monthly. In 1894 Holden added a "Planetary Phenomena" column, primarily for the benefit of the amateur members, which was written for thirty years by Malcolm McNeill. McNeill, a professor of astronomy and mathematics at Lake Forest, Illinois, had been writing such a column for *Popular Science News*, and Holden inquired if he would be interested in doing a



Malcolm McNeill in 1897. McNeill, a professor of astronomy at Lake Forest, wrote the popular-level "Planetary Phenomena" in the *Publications* of the A.S.P. from the column's inception in 1894 until his death in 1923. (Photograph courtesy of the Mary Lea Shane Archives of Lick Observatory.)

similar one for the *P.A.S.P.* McNeill replied, "I shall be delighted to do so... I should think that something a little more extended, and not so absolutely elementary, might be better suited to the needs of anyone who takes enough interest in Astronomy to read the A.S.P. publications."

McNeill continued to write this column until his death in 1923; it was then produced by Carlos S. Mundt and Hamilton M. Jeffers, and replaced in 1928 by a more general column entitled "Aspect of the Heavens". This column then ran in every issue of the *P.A.S.P.* through 1960, with various authors, especially C. H. Cleminshaw of the Griffith Planetarium in Los Angeles. In 1961 it was replaced by a summary for the year, published in the small format of the A.S.P. *Leaflets* (which had begun in 1925), called "The Heavens in 1961". This continued to appear each year through 1971, when the *Leaflets* were discontinued and replaced by *Mercury* magazine. Today, A.S.P. members get their sky information from the *Sky Calendars* produced by the Abrams Planetarium in Michigan.

By 1894 the Society was having financial difficulties, in company with the rest of the nation. In April Burckhalter wrote to Holden: "There is an absolute famine of news except that business is growing visibly worse — and that is not news. It will have a bad effect upon the A.S.P. It will make the collecting of dues difficult and new members hard to get, but like other sufferers I live in hopes of better times." The cash balance in the Society's general fund was \$378.39; membership dropped from 482 to 433 during the year; the *Publications* were a costly expense (though in that year they received second class mailing privileges).

The Board of Directors approved a proposal to use the Life Membership Fund (which had until then been invested and only the interest used for current expenses). In 1896 the treasurer was authorized to draw up to \$300 from this fund if needed. However, problems continued, so that by 1900 the cash balance was \$35.09, and membership was down to 291. In 1902 things became so bad that individual members had to come to the rescue. Alvord gave \$100 toward current expenses, and Pierson offered to bear the Society's deficit for the year. (At the end of 1902 the cash balance was an astronomical \$2.28.) But finances continued in