

**RECONSIDERING THE HISTORY OF THE AAVSO—PART 1****Thomas R. Williams**1750 Albans Road  
Houston, Texas 77005-1704*Presented at the 88th Annual Meeting of the AAVSO, October 30, 1999; revised March 20, 2001***Abstract**

A review of the history of the American Association of Variable Star Observers (AAVSO) reveals that its development in the first half of the twentieth century requires reconsideration in two important respects. This first part of a two-part paper deals with one historical issue, the founding of the association and its operation during its first six years, including the role played by Edward Charles Pickering and Harvard College Observatory, and recognizes that William Tyler Olcott played a more prominent role than has previously been acknowledged.

**1. Introduction**

The AAVSO will celebrate its centennial in just ten years. Therefore, it seems appropriate to reconsider its written history, with the intent of clarifying its past where more is now known about that history, and to situate that history more clearly in the context of the broader history of astronomy. The history of the AAVSO has been restated periodically since only a few years after its foundation. Though not intended explicitly as a “history,” the first attempt to describe the origins of the AAVSO came in a 1920 memorial to Harvard College Observatory (HCO) Director Edward Charles Pickering (1846–1919) (AAVSO 1920). Harvard’s Pickering Memorial Astronomer and AAVSO Recorder Leon Campbell (1881–1951) recited the history in more detail in 1931 as part of the twentieth anniversary of the founding of the AAVSO (Campbell 1931). William Tyler Olcott (1873–1936) drafted a longer history in 1936, summarizing the first twenty-five years of the association’s history from his perspective as its founding secretary (Olcott 1937). In an unpublished history prepared in 1951, when David B. Rosebrugh and Clinton B. Ford recorded the AAVSO history for the period from 1936 to 1951, they included Campbell’s recollections of his earliest years of association with the AAVSO, although Campbell’s letter was from an earlier period than that they intended to historicize (Rosebrugh and Ford 1951?). Newton Mayall and Janet Mattei published later versions of the AAVSO history, in each case relying on the previously published versions of that history with necessary extensions to bring the story chronologically up to date. Mayall’s 1961 history, published a few years after the AAVSO’s traumatic move away from Harvard, may have been prompted by the need for publicity and fund-raising during those troubled years (Mayall 1961). Mattei’s history, on the other hand, celebrated two joyous 1986 events—the association’s seventy-fifth anniversary, and the dedication of the Clinton B. Ford Astronomical Data and Research Center as the AAVSO’s permanent headquarters building (Mattei 1986).

Each new version of the published history added the developments that occurred since the time of the last previous recounting. Generally speaking, however, all published histories have emphasized a role for Pickering as the founder who exercised paternalistic oversight of the AAVSO. While Olcott is credited with the administrative effort required to get the organization started in these histories, his effort is usually

portrayed as standing in the shadow of Pickering. Furthermore, in some ways, the record has been clouded with an implied shifting of the role of recording secretary from Olcott to Leon Campbell at a far earlier date than appears justified, as will be shown in this work.

Resources that may not have been available to earlier writers can cast light on previously described matters and reveal new considerations of importance. For example, in addition to the Rosebrugh/Ford manuscript, a file of Pickering/Olcott correspondence that has never been cited exists in the AAVSO archives. With correspondence from the Harvard University Archives, these files make it possible to consider the earliest years of the AAVSO's history in greater detail than has previously been attempted. This paper focuses on the circumstances surrounding the AAVSO's founding and the six-year period between that foundation and the AAVSO's incorporation. It will demonstrate that Olcott deserves much more credit than he has typically been accorded in extant histories; that Pickering held Olcott and his AAVSO at arm's length for the first five years of the AAVSO's existence; that Harvard College Observatory only became deeply involved in AAVSO activities in 1917, after Campbell's return from Peru, and clarify the role that Campbell played in the early AAVSO history.

## **2. Organizing American amateur astronomers**

American astronomers, both amateur and professional, attempted sporadically to organize during the second half of the nineteenth century but it was not until the end of the century that they were successful. In 1899 professional astronomers finally organized as the Astronomical and Astrophysical Society of America (AASA), predecessor to the American Astronomical Society (Berendzen 1974). Amateur astronomers were welcomed to AASA membership, (Rothenberg and Williams 1999, 43) though eventually it was recognized that some alternate organization for amateur astronomers might be desirable. One of the possible models for such an organization was the British Astronomical Association (BAA) that carried out scientific work through observing sections devoted to specific topics, *e.g.* the moon, various planets, meteors, and variable stars (McKim 1989). During this period, amateur astronomers in the United States were actively involved in variable star astronomy (Saladyga 1999) but there was no formal organization similar to the BAA Variable Star Section to encourage their work. Instead, these amateurs, together with a few professionals, constituted a loose corps of observers coordinated by E. C. Pickering and the Harvard College Observatory staff.

### **2.1 The Society for Practical Astronomy (SPA)**

The Society for Practical Astronomy (SPA), founded in Chicago in 1909 by teenagers Frederick Charles Leonard and Horace C. Levinson, developed along the same organizational lines as the BAA with guidance from a few professional astronomers. At nearly the same time, however, other professional astronomers stimulated the organization of two competing national associations of specialized amateur observers, the American Association of Variable Star Observers (AAVSO) and the American Meteor Society (AMS). Only the AAVSO and the AMS survived in the era after World War I. There was, however, a surprising relationship between the SPA and the AAVSO, one that it appears may have played a part in the eventual demise of the SPA.

Frederick Leonard was probably the main instigator of the SPA; their journal was originally titled *The Monthly Register of the Leonard Observatory*. The typewritten journal was not very widely distributed but the organization grew slowly as Leonard recruited members through personal correspondence.

In 1911, after publishing several technical articles in *Popular Astronomy*, Leonard advertised the SPA to the broader audience of *Popular Astronomy* readers and invited others to join. Leonard advised that the society, which consisted chiefly of amateur astronomers, would also welcome professionals. The society published the *Monthly Register* of the SPA. The officers of the SPA were Frederick C. Leonard, President; John E. Mellish, Secretary, Horace C. Levinson, Treasurer, and Ruel W. Roberts, Organizer and Lecturer. Leonard went on to describe the goals of the society:

Before closing this communication, I wish to add further that we want to make this one of the strongest and largest amateur astronomical organizations in existence, and that we invite members from all over the world to join our ranks; we can make this society what we desire to make it only through the help of the many amateurs who are so willing to do all they can to advance Practical Astronomy, therefore, let us ask them all to join this association so that their combined efforts may result in promoting this sublime science to even a still greater degree than formerly. (Leonard 1911)

While the SPA grew slowly, the beginnings of a technical organization emerged with sections devoted to the planets, variable stars, and other observational topics as well as spectroscopy and instruments. Leonard maintained a steady flow of announcements in *Popular Astronomy*. He was successful in attracting more adults to the organization though many may not have suspected that the founders/co-editors of the SPA journal were “only” teenagers.

Two early SPA members from Maine, Russell W. Porter and Robert H. Bowen, conceived a national SPA convention which Porter volunteered to host at his home at Lands End (Porter 1913; Porter and Bowen 1914). Only a few individuals participated in the August 1914 weekend, but the participants, including *Monthly Register* editor Levinson from Chicago, enjoyed a rich experience as they shared observing notes and Porter regaled them with tales of his arctic adventures as well as tips on telescope making. Those assembled at Lands End voted to do the same thing the following summer. Bowen described the successful first “International Conference” glowingly in the *Monthly Register* (Bowen 1914).

By the end of 1914, the SPA membership included several professional astronomers. One of the professionals, Forrest Ray Moulton, helped organize the second SPA convention in August 1915, this time on the University of Chicago campus (see Figure 1). The second convention attracted thirty or more attendees, most were adults, and featured formal paper sessions and a banquet. At this meeting a new slate of officers was elected. Leonard remained an SPA director but Latimer J. Wilson of Nashville, Tennessee, was elected president. Plans were made for the third convention to be held in 1916 in Rochester, New York (Maxwell 1915).

What is crucially important about these events is that they show that the SPA was evolving away from its status as the brainchild of two teenagers into a broader based organization. Wilson had already shown his ability as serious amateur planetary observer, and would emerge in later years as one of the pioneers in planetary photography. The new SPA treasurer, Henry W. Vrooman of Kokomo, Indiana, was a variable star observer and spectroscopist and was well respected by the staff at Yerkes Observatory. John E. Mellish was well known as a discoverer of three comets as well as for his telescope making. Speakers at the second conference included professional astronomers Mary Byrd and Charles Pollard Olivier. In addition to Moulton, Byrd, and Olivier, other professional astronomers who had joined the ranks of the SPA included Homer Black, E. A. Fath, and Francis P. Leavenworth. This is admittedly not a list of the leading professional astronomers in America, but it is

important to note that these professionals saw this organization as one in which it was worth investing their effort. They saw the need for such an organization to facilitate amateur contributions to astronomy, and believed that the SPA had potential to do just that with its technical observing sections (Anon. 1915).

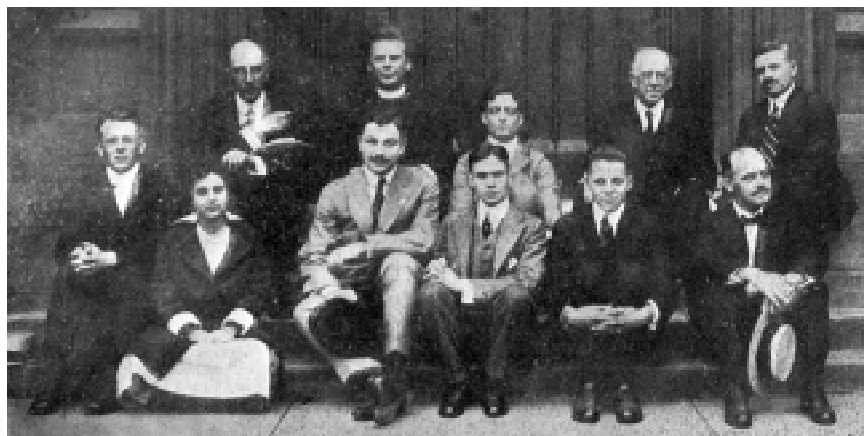


Figure 1. Members present during the second annual conference of the Society for Practical Astronomy (SPA), held at the University of Chicago, August 16–18, 1915. From left: S. F. Maxwell, Miss M. Mueller, R. B. Potter, C. A. Mundstock, Father A. Petrajtys, F. C. Leonard (front-center, with hands on one knee), H. F. Black, H. C. Levinson (sitting at Leonard's left), Rev. R. F. Bumpas, H. W. Vrooman, W. Henry. Leonard, Vrooman, and Henry contributed variable star observations to the AAVSO. From *The Monthly Evening Sky Map*, Vol. IX, No. 106, October, 1915.

## 2.2 The SPA Variable Star Section

Nowhere in the AAVSO's historical record is there a mention of the SPA and the important role that the SPA Variable Star Section played in the formative years of the AAVSO. The connection between the two organizations is through AAVSO founder William Tyler Olcott. At the 1909 meeting of the American Association for the Advancement of Science in Boston, Olcott received his first exposure to variable star astronomy, hearing a presentation on the subject by Pickering. Olcott wrote to Pickering, asking how he might become a variable star observer. In response, Pickering not only loaned him a telescope (Pickering 1910), but also dispatched one of his HCO staff of observers, Leon Campbell, to Norwich, Connecticut, "to initiate Mr. Olcott in the art of variable star observing." (Mattei 1986) Thrilled with the experience of observing variable stars, Olcott wrote an article inviting others to do so. After his draft article was reviewed at Harvard, it was published in the March 1911 *Popular Astronomy* (Olcott 1911a).

As a result of Olcott's enthusiastic article on variable star observing Leonard asked Olcott to serve as the leader of the SPA Variable Star Section. Anyone familiar with AAVSO history will recognize the names of many early AAVSO members in the SPA variable star section shown in Table 1.

After about a year as the SPA variable star section leader, Olcott found it impossible, for reasons that will later become apparent, to continue in his role as section leader. Edward Gray replaced Olcott as leader of the SPA variable star section, but Gray also resigned after another year. In late 1914, Leonard, who had been an

Table 1. Members of the Variable Star Section—Society for Practical Astronomy.

<i>Name</i>	<i>Residence</i>
Barbour, Lemont	New York, New York
Barns, C. E.	Morgan Hill, California
Bohmker, J. C.	Chicago, Illinois
Bouton, Tilton C. H.	Hudson, New Hampshire
Burbeck, Allan B.	North Abington, Massachusetts
Craig, Alan P. C.	Corona, California
Forsyth, E. L.	Needles, California
Gray, Edward	Eldridge, California
Hunter, Stephen C.	New Rochelle, New York
Jacobs, Jr., M. W.	Harrisburg, Pennsylvania
Lacchini, Giovanni Battista	Bologna, Italy
Leonard, Frederick Charles	Chicago, Illinois
McAteer, Charles Y.	Pittsburgh, Pennsylvania
Olcott, William Tyler	Norwich, Connecticut
Vrooman, H. W.	Kokomo, Indiana

*Source: (Leonard and Levinson 1911, and following issues)*

active variable star observer and contributed over 1,400 observations to the AAVSO between 1913 and 1917, announced he would lead the SPA variable star observing effort. Unfortunately, by then the variable star section members had all resigned from the SPA. The departure of this particular group of adult amateurs from the SPA was a severe blow. Many were involved in more than one SPA section. As a group, they represented a substantial loss in resources, both financially and in potential leadership.

### 3. An alternative to the SPA—specialized observing associations

To understand what happened to the SPA Variable Star section we need to go back to the August 1911 *Popular Astronomy*. Immediately following Leonard's announcement of the formation of the SPA, Herbert C. Wilson, the editor (see Figure 2), announced that in the future *Popular Astronomy* would feature a new monthly article devoted to amateur astronomy. Wilson described the opportunities for amateurs to contribute to astronomy and decried the lack of an organization that would coordinate the activities of amateurs. While he did not mention the BAA, it is clear from the text of the article that is exactly what Wilson had in mind—a nationwide organization made up of sections devoted to specific observational topics. Wilson appealed for the formation of such an organization and offered *Popular Astronomy's* support by publicizing observations.

The editor of *Popular Astronomy* has it in mind to each month publish under the heading "Notes for Observers" short lists of objects to be observed and suggestions as to methods and forms of record. Can we not have in America an association of observers with a "Variable Star Section," a "Jupiter Section" etc.? We invite correspondence in regard to the matter. (Wilson 1911a)

The disjunction between the Leonard and Wilson articles is evident to any careful reader of those pages. Wilson ignored Leonard's effort to organize exactly the type of society that Wilson eloquently described as needed, deliberately undermining the SPA. He later made that intent explicit in a letter to Pickering:

I have several letters from observers who would like to see the formation of such an association as was mentioned. I am chary, however, of the organization headed by Frederick C. Leonard who is only a boy with lots of enthusiasm but not very much knowledge of astronomical subjects. If there is any way we could head him off, it would be a good thing. (Wilson 1911b)

The new national association of amateur astronomers that Wilson hoped would compete with the SPA never materialized. There was no one else with Leonard's energy who was willing to attempt such a broad organizational effort. However, two parts of the overall association, "sections" for variable stars and meteors, were organized in response to Wilson's appeal.

In *Popular Astronomy* for September 1911, Wilson quoted a letter from Pickering that strongly supported the formation of a variable star section like that Wilson advocated. Pickering indicated that Harvard Observatory would provide technical guidance if someone else would form and administer such an organization (Wilson 1911c; Pickering 1911a).

In a letter to Pickering dated September 29, 1911, Olcott advised that he had already arranged to announce the formation of a variable section as proposed by Wilson:

I am greatly interested in the organization of a variable star section in this country. The Editor of *Popular Astronomy* favors the idea and will propose it in the next issue. I have offered to conduct such correspondence as is necessary in connection with such an organization. The sole idea in the formation of such a body is to supplement the splendid work you are doing and in no wise to interfere with your present cooperative plan. All members of such a section would be required to send their observations to you.

It is my hope that the formation of such a section will attract recruits and awaken interest in a line of work that amateurs would do well to take up.

I trust such a plan meets with your approval, as my endeavors in this direction are directed solely with a desire to call the attention of others to this work so that they may cooperate in your admirable plan of systematic observation. (Olcott 1911c)

In the September 1911 *Scientific American*, Olcott announced he was forming "an association of variable star observers" and invited interested observers to write to him (Olcott 1911b, 484). (In a parallel development, the November 1911 *Popular Astronomy* announced that Charles Pollard Olivier would form the meteor section for the proposed new organization. Olivier also served as leader of the SPA meteor section until the SPA collapsed in 1917. Since the national association that Wilson contemplated never materialized, Olivier's "meteor section" eventually became the nucleus of the American Meteor Society (Anon. 1911, 586). In contrast to the AAVSO, which was always a member-led organization, Olivier was the only "officer" of the AMS. Members sent their observations to Olivier, who analyzed and published them, but there were no other officers, no by-laws, and no meetings. Thus AMS would hardly qualify as a formal society in any commonly accepted usage of the word.)



Figure 2. H. C. Wilson (1858–1940). Editor of *Popular Astronomy* 1909–1926. From *Pop. Astron.* Vol. 51, Nr. 501, 1943.

### 3.1 Getting the AAVSO started

In practice, what actually happened was slightly different than Olcott expected when he wrote to Pickering announcing his intent to form “a variable star section.” Olcott expected that the members of Pickering’s corps of observers would also become members of the new association. In an October 3rd letter to Pickering, Olcott outlined what he thought the new arrangements would be:

I think we should count on the group now cooperating with you to form the nucleus of this new association, which has for its aim the furtherance of your plans. A word from you to them will accomplish this purpose. As I am merely acting as Corresponding Secretary in this matter I feel that my appeal to them would have little weight. I have requested these observers to send me by the 10th of the month their observations so that I can forward them to *Popular Astronomy* for publication.

This will enable each member of the association to see what the other members are doing, will stimulate interest in the work by affording an opportunity of comparing observations, and should attract recruits for the work. (Olcott 1911d)

Olcott was, in fact, already aggressively recruiting membership for the new association from among Pickering’s corps of observers. His October 4th letter to Harriett Bigelow demonstrated the extent of his recruitment activity:

Dear Madam: There is an effort being made to organize a Variable Star Section in this Country. Prof. Pickering of the Harvard College Observatory favors the plan and I thought possibly you might be able through some of your classes to cooperate in this work as Vassar, Mt. Holyoke, & Amherst are doing. Prof. Pickering furnishes the necessary charts, and I will gladly assist those who care to take up the work in any way that I can.

I hope that you will give the matter your attention for your cooperation is earnestly desired. (Olcott 1911e)

Pickering’s response was not exactly what Olcott expected. Pickering expressed some reservations about Olcott’s plan to publish observations in *Popular Astronomy*. He had already staked out the importance of primary review and control of the data at Harvard in his September letter to Wilson, noting that such matters “can not really be trusted to an amateur” (Pickering 1911a) (on the matter of professional control of amateurs see Rothenberg 1981). Pickering further expressed his concerns as follows in an October 7th letter to Olcott:

There seems to be some misunderstanding with regard to the plans of *Popular Astronomy* in publishing the detailed observations.... If our observers are inclined to send you, on the tenth, a second copy of their observations, which they send us on the first, and Professor Wilson is inclined to publish them, I see no objection to your plan. Until this arrangement is definitely made, however, I hope nothing will be done to prevent our observers from sending their observations to this Observatory as heretofore, or to interfere with our monthly article in *Popular Astronomy*. Since your letter was received by our observers, there seems to be doubt in the minds of some of them as to where they should send their observations. (Pickering 1911c)

Apparently some members of the HCO observing corps had already expressed their concern about the new organization. Amherst professor David Todd, for example, indicated his willingness to join Olcott's efforts if that was what Pickering desired, though redundant reporting to both Harvard and Olcott's new organization could not have been very attractive to Todd:

Dear Prof. Pickering: Mr. Olcott, as you know, is anxious to start an association of variable star observers, with the idea of increasing the number of observations.

I do not quite see how he is in any better position to do this than you are.

But doubtless you have considered the scheme, and if you have no objections whatever, I am getting ready to send him copies of our observations.

But I do not wish to do so until I hear from you. (Todd 1911a)

Pickering did not reveal to Olcott that on October 5th he had already advised Todd, and possibly other members of the HCO observer's corps, that they were not required to send observations to Olcott. In his response to Todd, Pickering clearly expressed his desire to keep the two efforts separate:

Mr. Olcott's plan is only to supplement ours, and he assures me that he will not attempt to interfere with it. I hope therefore that you will continue to send us the observations which have proved to be very valuable in the past. Of course, I have no objection to your sending him copies also, if you desire to do so, but he is apparently laboring under a misapprehension, as Mr. Wilson writes on September 11:—"We could not undertake to publish individual observations and computations as you have done and so the only thought would be to help to make the cooperation of more amateurs effective." (Pickering 1911b)

With Pickering's reassurance that it was not required, Todd and his Amherst associate elected not to submit observations to the AAVSO (Todd 1911b).

In contrast to Todd, Wilson was apparently already committed to promoting Olcott's plan. In spite of his assertion to Pickering that he would not do so, the first summary of individual variable star observations from the fledgling AAVSO appeared only a month later in the November 1911 *Popular Astronomy* issue. The first monthly report only included observations from one other regular contributor to the Harvard program, Professor Anne Young of Mt. Holyoke College, in addition to Olcott's observations. However, the AAVSO report in the December 1911 *Popular Astronomy* expanded with observations from Hunter, Jacobs, and Vrooman of the SPA variable star section, and one new recruit to the program, F. E. Hathorn of Iowa, in addition to those of Olcott, Professor Young, and Helen Swartz, all regular contributors to the HCO variable star program. AAVSO observations appeared regularly in *Popular Astronomy* for the next twenty-five years (Mayall 1961).

Throughout 1912, while Olcott was keeping up with correspondence and writing articles summarizing observing results for the *Monthly Register* of the SPA, he was thus also in the process of forming the AAVSO and reporting the new organization's observations in *Popular Astronomy*. Olcott had to have observing materials so he was frantically tracing Harvard's sequence charts for new observers. Olcott produced over 6,000 such charts for the AAVSO membership. It is not surprising that Olcott finally had to admit that he could not support both organizations. As founder of the



AAVSO, his stake was obviously much higher in that organization than it was in the SPA, and by 1913 he had resigned from the SPA. By the end of 1915, the remainder of the SPA Variable Star Section, with the exception of Leonard, had resigned from the SPA and joined with Olcott in the AAVSO. (In his studies of the career of Frederick C. Leonard, Smithsonian Curator Emeritus Roy S. Clarke, Jr. noted that in the years after the collapse of the SPA, Leonard seemed to reflect a distinct bitterness about the AAVSO. For example, Leonard refused to allow Henry C. Vrooman to dispose of the residual funds in the SPA treasury by donating them to the AAVSO for the Pickering Memorial Fund. This somewhat sour outlook was evident in letters Leonard wrote to both Lick Observatory Director W. W. Campbell and Harvard College Observatory Director Harlow Shapley (Clarke 2000).)

### 3.2 Pickering's early support of the AAVSO

Correspondence between Olcott and Pickering in the four years following the founding of the AAVSO in 1911 suggests that Pickering and his staff dealt with Olcott cautiously during those early years. That Pickering would hold Olcott and his AAVSO at arm's length during this period is entirely understandable in several contexts. One factor contributing to this distancing may have been the early confusion over the publishing of AAVSO observations by *Popular Astronomy*. Given the strength of Pickering's assertion that variable star data should be published only after assembly and analysis at Harvard, he may have felt Wilson violated an understanding in supporting Olcott's desire to publicize the new organization. If Pickering saw this as a mild threat to the integrity of the HCO variable star program, it would be natural for him to take a "wait and see" attitude about the new organization.

A second reason for the apparent distancing recognizes that Pickering maintained relationships with three variable star groups that he saw as separate and competing demands for HCO resources. At least in the early years, this distinction may have been important to Pickering because of his desire to maintain the HCO corps of observers. In his letters, Pickering kept Olcott informed about the SPA, and also referred separately to the efforts of the HCO corps of observers (Seagraves, Swartz, Todd, Young, and others (see for example Pickering 1913a). The AAVSO was Olcott's separate effort, however; it was up to him to bring it to maturity with only that technical support that Pickering and the HCO provided to all three groups. Until the SPA failed, and his own corps of observers began to disintegrate, Olcott's AAVSO was just one of several resources, all of which demanded technical support from Pickering and the HCO staff.

In those earliest years, Pickering was providing SPA's Gray and Leonard with technical support for their chart development effort. The SPA variable star observers made a surprising contribution in this regard. It appears that the origin of the traditional blueprint charts was not at Cambridge or even among the East Coast regulars in Olcott's group. Instead, it appears that the idea was first suggested by either Leonard or Gray, and was developed and implemented by Gray. At first Pickering was not interested in this innovation, though he did help Gray and Leonard with correct sequence magnitudes to be used on their charts (Pickering 1912). But as he saw the blueprint idea mature in Gray's hands, Pickering warmed up to the concept (Pickering 1913a; Pickering 1913b) and finally endorsed it enthusiastically (Pickering 1914). In the meantime Olcott was tracing charts by hand for his early AAVSO observers.

More importantly, however, it is unlikely that Pickering had time to devote to the fledgling AAVSO. From a scientific perspective, Pickering was engaged in numerous projects, the results of which were to become standards in their respective fields. For example, the Harvard systems of photographic magnitudes and spectral classification

of stars were accepted as international standards in 1913 (Plotkin 1982; Plotkin 1997b, 404; DeVorkin 1981). The massive *Henry Draper Catalogue of Stellar Spectral Classifications*, which was initiated under Pickering's direction by Annie Jump Cannon in 1911, would surely have involved almost daily discussion with the director. Publication of the Draper catalogue was not completed until several years after Pickering's death (Plotkin 1978; Plotkin 1997a; Jones and Boyd 1971, 176 and ff). Through this work, and his cooperation with international projects during this period—for example photometry for Kapteyn's Plan of Selected Areas—Pickering established the HCO as one of the pre-eminent astrophysical observatories of the era.

Furthermore, from 1909 until his death in 1919, Pickering actively led the professional astronomical society in the United States. As its president for ten years, Pickering was involved in every aspect of the society's affairs. His early years as president included a contentious debate that resulted in changing the name of the society from the Astronomical and Astrophysical Society of America to the American Astronomical Society (AAS) in 1914 (DeVorkin 1999, 27–34). At the peak of his power professionally during this entire period, from 1913 on Pickering dispensed funding and other forms of patronage to the astronomical community in America. (For an elaboration on the whole topic of patronage see chapters 7 and 8 of Lankford 1997.)

The substantial scientific and professional workload described above was added to the routine administration and fund raising for the observatory and maintenance of relations with Harvard University. It is not difficult to believe that Pickering would have found it impossible to spend much time on Olcott and his variable star observers.

### 3.3 Closing the gap

In his letters to Olcott, Pickering frequently referred to the AAVSO as “your observers.” Although Pickering's letters dealt nearly exclusively with charts, sequences, and related technical matters, he occasionally encouraged Olcott by complimenting him on his effort with the AAVSO. In a 1913 letter for example, Pickering comments, “The variable star association, largely owing to your supervision, appears to be doing its work in a very satisfactory manner” (Pickering 1913c).

In April 1914, Olcott and some of his AAVSO colleagues began holding informal meetings in New York City and had assembled there on three occasions by mid-1915 (Mayall 1961, 6). Pickering rejected, without specifying any reason, an invitation to meet with AAVSO members at one of these sessions, though as outlined above his busy schedule at HCO would surely have precluded travel to New York for this sole purpose. For their fourth meeting in the fall of 1915, the informal group agreed to meet in Boston to attend a Harvard-Yale football game, and discuss AAVSO matters over dinner. Olcott again made an effort to draw Pickering a bit closer to the AAVSO as part of this meeting by inviting him to participate in their Boston dinner meeting. In response, Pickering invited the group to come to the observatory for a tour (Pickering 1915a; Pickering 1915b; Pickering 1915c; see Figure 3). Pickering and Campbell joined the group for the evening dinner and were quite impressed with the variable star observers. In his thank you letter to Olcott, Pickering mentioned the possibility of an AAVSO affiliation with the AAS, and suggested that some of the AAVSO members could be nominated for membership in AAS if they wished. He further suggested that Harvard publications related to variable star work could be made available to AAVSO members if Olcott thought it worthwhile. Thus, Pickering's first exposure to the members of the AAVSO elicited a remarkably positive response. His letter radiates a new enthusiasm for Olcott's association (Pickering 1915d).

As late as 1916 though, Pickering had still not referred to the American Association of Variable Star Observers by its title. In his correspondence with Olcott, he addressed the group as “your observers” or “your Association.” If at first it was not evident to Pickering that the AAVSO would succeed, by late 1916 it must have been

abundantly clear that Olcott and “his observers” were solid contributors to the HCO variable star program. At a meeting of the association in the fall of 1916, discussions among the members made the observant Pickering aware that Harvard’s financial assistance to the fledgling organization might be appreciated. Pickering asked Olcott for a summary of the organization’s finances. In response to Olcott’s report (Olcott 1916) Pickering proffered Harvard’s first financial aid to Olcott’s operation. It was in this late 1916 letter advising Olcott of that decision that Pickering used the title American Association of Variable Star Observers for the first time (Pickering 1916). This new support, the first support not related directly to the technical operation of the association, occurred fully five years after Olcott founded the AAVSO.

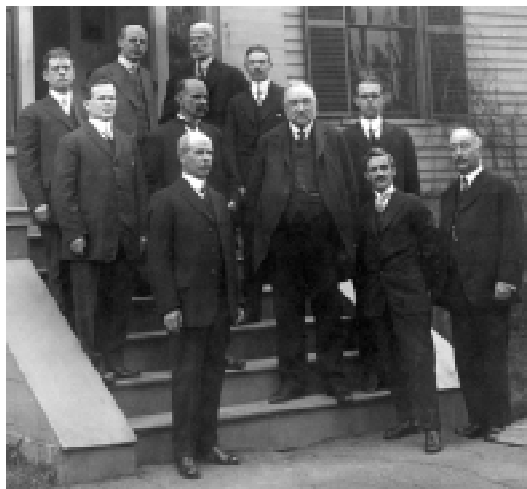


Figure 3. The first Harvard College Observatory meeting of the AAVSO, November, 1915. (Top row, from left) A. B. Burbeck, 1st treasurer; David B. Pickering, 1st president; Solon I. Bailey; W. T. Olcott, 1st secretary. (Middle row, from left) F. H. Spinney; C. Y. McAteer; E. C. Pickering (HCO Director); G. F. Noly. (Bottom row) Rev. T. C. H. Bouton; Leon Campbell, 1st recorder; J. L. Stewart. Members were posing on the steps of HCO Observatory Building A, which housed the AAVSO for nearly half a century. (AAVSO archives.)

By this time the AAVSO had grown sufficiently in size that a more formal approach was needed. In July 1917 Olcott ordered letterhead stationery displaying the now-familiar AAVSO logo for the first time, and drafted a constitution and by-laws (Olcott 1917). The association adopted the constitution and by-laws, and took the first steps to incorporate the AAVSO at the 1917 fall meeting. Officers elected at that important meeting included David B. Pickering as president, Olcott as secretary, and Allen Burbeck as treasurer (AAVSO 1993, 5–6). The process of incorporation was completed in 1918 (Mattei 1986, 113).

The incorporators of the AAVSO were Leon Campbell, Allen B. Burbeck, Ida E. Woods, William H. Reardon, Edward C. Pickering, Solon I. Bailey, Dorothy W. Block, and Michael J. Jordan, all residents of the State of Massachusetts. Jordan was a local Justice of the Peace. No doubt the others were the individuals who could easily be called upon for this formality. Campbell, Woods, Reardon, Pickering, Bailey, and Block were all members of the HCO staff, and would therefore have been convenient to round up to provide the requisite number of signatures in a timely manner. Burbeck was the only incorporator among the first officers elected. Though he drafted the constitution and by-laws for the association, Olcott was apparently ineligible to act as an incorporator under Massachusetts law, or at least he was unable to travel from Connecticut for this purpose. The first regularly elected president of AAVSO, David B. Pickering of New Jersey, was also not an incorporator, probably for the same reason.

### 3.4 Campbell's early role for Harvard with the AAVSO

If Pickering's interests in Olcott and his observers were changing in this period, Campbell probably strongly influenced that change. Campbell maintained informal contact with Olcott after introducing him to variable star observing shortly before he departed for Arequipa, Peru, in 1910. When Campbell returned to Cambridge from Peru in August 1915, he was assigned to photometric and visual work with the 15-inch refractor and the 12-inch polar telescopes at HCO (Harwood 1949). As part of that work, Campbell eventually took hold of the HCO variable star operation and began informally helping Olcott. It was not until 1918, after the incorporation of the AAVSO and election of its first officers, that Campbell's work with the AAVSO was made an official part of his assignment at HCO (Rosebrugh and Ford 1951?, 2).

The nature of Campbell's informal support to Olcott is unclear but probably involved assistance with the compiling of AAVSO variable star observations for monthly publication in *Popular Astronomy*. That task might have been seen as a natural extension of Campbell's work to compile variable star observations from the HCO corps of observers and staff, but if so, he still carried out the AAVSO part of that work at home and not at the observatory (Rosebrugh and Ford 1951?, 2). Olcott continued to sign the monthly *Popular Astronomy* reports of observations as secretary until he took extended leave from all his AAVSO duties in 1919. From 1919 until 1925, various HCO staff, including Ida Woods, Arville D. Walker, Professor Howard O. Easton, and Florence Cushman, signed the monthly *Popular Astronomy* reports. Woods was identified as "acting secretary," but Walker, Easton, and Cushman were all identified as "recording secretary."

In the two years after the incorporation of the AAVSO, Pickering and Harvard College Observatory drew much closer to Olcott and the AAVSO through Campbell's voluntary efforts. After Pickering's death in 1919, the AAVSO members elected Campbell as their president. He was only the second individual to be so elected and served from 1919 until 1921 (AAVSO 1993, 6).

After Harlow Shapley replaced Pickering as observatory director, Campbell's formal work assignments at HCO gradually involved him more completely in AAVSO work. In 1925 Campbell was given full responsibility for Harvard's involvement in AAVSO activities as Recording Secretary, a title later shortened by Campbell to Recorder. In 1931 Campbell was appointed E. C. Pickering Memorial Astronomer (Campbell undated). Eventually the position of Recorder carried responsibilities similar to those that have been associated with the AAVSO director since Margaret Mayall assumed that new title in 1956.

### 3.5 The "Founders" of the AAVSO

At the first AAVSO annual meeting after Pickering died in 1919, the AAVSO Council adopted a memorial resolution declaring that Pickering was "a founder, and the first Patron and Honorary Member of our Association" (AAVSO 1920). Under the circumstances described above, it is not difficult to understand why, in a 1920 memorial and tribute to the late director, Olcott was somewhat muted in his praise of Pickering in spite of the council's declaration. Olcott was quoted as saying:

In addition to the many great contributions to Astronomical Science made by the late Professor Edward C. Pickering, it is of particular interest for us to recall that he was among the first to place before the amateur astronomers of this country the opportunity afforded them for accomplishing valuable and scientific work in the observation of Variable Stars. Through the medium of an appeal published by him in "Popular Astronomy" in 1901, he called for volunteers to co-operate in this valuable line of observational work, thus carrying out the great Argelander's wish expressed at the conclusion of his wonderful career.

It was but natural therefore that Professor Pickering should have taken a great and personal interest in the action that was to result in the formation of our Association. It was the writer's extreme pleasure to discuss with the professor during the early days of our organization plans for its future enlargement. He was ever ready with timely and valuable suggestions, the carrying out of which accounted for the success that has attended the career of the Association since its inception. (AAVSO 1920, 11–12)

Olcott thus credited Pickering with inspiration to him and others, but not as a founder.

Just before Olcott died in 1936, he wrote a history of the AAVSO that he intended to read at the 25th anniversary meeting (Olcott 1936; Olcott 1937). At that time, Olcott explicitly shared the credit for the AAVSO founding with Pickering. It seems likely that after so many years of dedicated service to the association, Olcott might well have viewed his own position in the matter as secure. Furthermore, by 1936 Harvard was providing a great deal of direct support to the AAVSO in the form of Campbell's salary, modest other staff support, and office space. Shapley had proven a strong supporter for the AAVSO. Thus one might speculate that Olcott also recognized that the AAVSO could ill afford to offend Harvard.

After Olcott died, however, Campbell not only credited Pickering as a co-founder, but he added Herbert C. Wilson, the former editor of *Popular Astronomy* to the list of "founders" (Campbell 1936). In Campbell's version, the trio (Olcott, Pickering, and Wilson) founded the AAVSO. It is difficult to understand what Campbell might have been thinking at this time. What possible advantage could he have seen to identifying Wilson, an individual who only called for the founding of some organization like the AAVSO, as an actual founder of the AAVSO? It is true that Wilson cooperated with Olcott by publishing AAVSO observations, but otherwise Wilson had little to do with the organization.

Reflecting on the early history of the AAVSO from the distance of nearly one hundred years, it now seems reasonable to reconsider both the AAVSO Council's designation of Pickering as "a founder" and Campbell's later addition of Wilson to that list. One might wonder, in fact, whether either Pickering or Wilson would even welcome such an honorific distinction if it detracted in the least from recognition of Olcott's first six years of effort. During those formative years it was Olcott who recruited members, traced charts, publicized observational results, arranged meetings, and otherwise nurtured the organization through both his correspondence with members and his technical liaison with Pickering and the HCO staff. Those are the activities of a founder, one who begins to build or organize, or brings into being, an organization of any type. That Olcott did so at arm's length from Pickering and the HCO staff for most of the AAVSO's first six years is now apparent from available archival evidence. Accordingly, it seems appropriate to reflect a singular role for Olcott as "the founder" of the AAVSO in future histories, with appropriate acknowledgements for the vital support that both Pickering and Wilson provided to Olcott.

#### 4. Summary

The founding of the AAVSO in 1911 and the six years between that event and the organization's incorporation in 1917 involved considerations that have not heretofore been reflected in various versions of the history of the AAVSO. It is not unusual for writers of such history to compress the events of early years when they are considered in the light of all that follows. After the AAVSO's founding in late 1911 by William Tyler Olcott, its earliest membership was drawn in large measure

from the variable star section of the Society for Practical Astronomy, which Olcott also chaired for a year or more. Although Olcott styled himself as the “secretary” of the AAVSO, there were no other officers and his role in the founding and early operation of the new organization was really much broader than that title might imply. Technical support from Pickering and the HCO staff to both the SPA and the AAVSO placed amateur variable star astronomy on a sound technical footing. Such support likely ensured that the AAVSO would succeed in a technical sense, but it was Olcott’s dedication that ensured the overall success of the AAVSO whereas the SPA did not survive after 1917. As part of its program, the SPA variable star section originated the blueprint charts that later became a standard tool for AAVSO variable star observers. After Leon Campbell returned from Arequipa, Peru, late in 1915, relationships between Harvard and the AAVSO gradually shifted from arm’s length to a very supportive involvement with both the administrative and technical aspects of association operations.

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