

Chapter 6

Technology and General Education in the Atomic Age

THE UNEXAMPLED DEMANDS in size and adaptation that confronted American education at the close of World War II by no means caught the institutions unawares, as has been noted. Fact finding, evaluations, and unending discussion had been going on steadily through the 1920's and 1930's — the educational phase of an era of planning. The investigations had been carried on by governmental agencies, professional organizations, educational foundations, and particular institutions. There was a conscious effort to salvage from the training programs of the war usable ideas and practices in subject organization and techniques. In view of the prospective national and international situation the formal discussion centered on the expansive areas of general education. There was a very considerable output of reports and polemical treatises, books and articles on the subject, involving many disagreements as to the meaning of the term itself. Most widely discussed

was the Harvard report on *General Education in a Free Society*. Under the direction of its educational editor, Benjamin Fine, *The New York Times* conducted a crusade for the more general requirement of American history for undergraduates as well as for a greater emphasis on training for citizenship, including curricula of technical institutions.

Land-grant institutions, recognizing the large share that they would have in the training of veterans and the dominant sphere of technology in the turbulent "one world," gave all the attention that could be taken from their embattled campuses to collegiate ways, more or less "as usual."

Throughout the war the land-grant association gave major emphasis to the training and social adjustment of the G. I.'s in agriculture, industry, and the public service in the post-war economy and society. In all this evaluating and prospecting there was a recognition of the essential place of the general studies, including the humanities, to meet the imperative duties of citizenship in the new world order.

As early as 1925 there was a proposal for a division of the land-grant association that was at first termed "liberal arts" but later, "arts and sciences." A committee was continued from year to year until 1929 when, by reason of the "diversity of organization and practices" found by the land-grant survey, it was felt that a recommendation was impracticable and the committee was discharged. Finally in the revised constitution of 1945, a coordinate "division of arts and sciences" was specifically authorized. Thus the pressure of national conditions, as well as a broadened, more enlightened conception of education in technology, had at long last brought full acceptance of this essential responsibility of land-grant education.

Iowa State College was early alerted to the call of the

new mass education. Aside from the general land-grant survey of 1930 in which various staff members had actively participated, and the president's report on education in 1939, the College had been the subject of or the instigator of special studies and surveys for a decade and a half. Pre-war examples were the studies and publications of the council on teaching (1929–1933), the special study of the extension service, and the general administrative state survey of the Brookings Institution — both in 1933 — and the semi-annual reports to the governor on changes in curriculum required by the legislature, 1939–1940. During the war the general curriculum committee had given special attention to the liberalizing of the offerings of the technical divisions; the divisional committees, in some cases with student advice, had been busied in revising and renovating their programs. The farm operation curriculum, introduced in 1944, was deliberately designed to train more realistically for rural economy and living. Aside from emergency practices forced by the high-pressure demands of the training programs, new methods and procedures were being studied and devised. In the *Alumnus* for January, 1944, Friley presented a prospectus of the post-war needs of the different groups of students and the adjustments needed for rendering the fullest service, in instruction and research.

► REVIEW ACCOMPLISHMENTS

Division and general anniversaries in the post-war years were opportune for checking gains and pointing needs. Home Economics observed a diamond anniversary in 1947. Dean P. Mabel Nelson's highly specialized staff of instructors, research specialists, and extension workers — all with latest equipment and techniques — was a far cry from the

improvised experimental kitchen of the devoted Mrs. Welch. No less impressive at its fiftieth birthday in 1954 was the contrast of the forestry department headed by George B. Hartman, '17 — the successor to the real father, Gilmour B. MacDonald — as compared with the original professorship of the youthful Hugh Baker. The attainment of the department was a vindication of the judgment of Pearson over that of his doubting board that had sought its discontinuance. The golden anniversary of technical journalism, in 1955, was another evidence of executive foresight, thanks to the progressive building on the modest endowment of John Clay by Will Ogilvie, Clifford Gregory, '10, Frederick W. Beckman, Blair Converse, Charles Rogers, and Kenneth Marvin, '23.

► REFLECTIONS AT NINETY

Of inclusive interest to the college community was the kaleidoscopic view of the changing scientific and academic scene presented at the ninetieth anniversary celebration, March 22, 1948. In an overcrowded day were packed greetings from the sister institutions, the governor, and the board of education, and understanding tributes to the respective divisions by representative alumni. In addition, the formal addresses by distinguished specialists surveyed the backgrounds and present status, and forecast the future needs and opportunities of the main lines of work of the College. Senator Bourke B. Hickenlooper, '21, gave a running survey of international policies with especial tribute to the College's research in atomic power.

There was altogether too much of past, present, and future to be absorbed in one day, but the proceedings were conveniently and attractively printed for deliberate con-

templation. So far as the application to the College went, and it was made the focus of the entire program, the consensus was that while achievements of the nine decades had been remarkable, the great matured undertakings were just being entered upon.

The destinies of the College in the final decade of its first century were to be directed by a new leadership. During World War II and in the following decade the deans, directors, and nearly all heads of departments were to be changed, some of them two or three times. Most of the changes came in the years immediately after the war. With the retirement of Buchanan as director of the Agricultural Experiment Station, the three lines of work of the division were consolidated under Kildee who was soon succeeded by Floyd Andre, '31, who came from the assistant deanship at Wisconsin. After the delayed retirement of Dean Agg by reason of war exigencies, a similar consolidation was made in Engineering under Lowell O. Stewart as acting dean. Later J. F. Downie Smith, a Scotch engineer with degrees from Glasgow, Georgia Tech, Virginia Tech, and Harvard, became permanent head. Smith resigned to return to industry as of January 1, 1958.

► SHARE RESPONSIBILITIES

In operation, consolidation of the three lines of work in both Agriculture and Engineering necessitated functional decentralization of supervision. Thus Roy M. Kottman, '41, became associate dean for agricultural instruction; for the station — following service of George F. Stewart as assistant director — George M. Browning served as general associate director; Richard K. Frevert, '37, became assistant director for agricultural engineering, with Pearl Swanson in similar position for home economics; for extension,

the staff included Marvin A. Anderson, '39, associate director, and Maurice W. Soultz, '30, and Louise M. Rosenfeld, '28, assistant directors of club work and home economics respectively.

In Engineering, following the resignation of Frank Kerekes as assistant director to become dean of the Michigan College of Mining and Technology, Mervin S. Coover was transferred from head of electrical engineering to associate director of the division and later acting dean; George R. Town had the corresponding position for the station, and G. Ross Henninger for the extension service, following the long formative service of Daniel C. Faber.

► NEW HEADS

The divisional research institute in Veterinary Medicine was directly supervised by Harry E. Biester as associate director. During the war Henry D. Bergman succeeded Charles Murray as dean of Veterinary Medicine, and in turn was followed by Ival A. Merchant. In Home Economics, Helen R. LeBaron — who had balanced training from Vermont, Cornell, and Chicago — freed P. Mabel Nelson for teaching and research in the history of the division. Late in the decade, in February, 1956, Gaskill resigned from the deanship of Science to become a vice-president of a large industrial enterprise. After a temporary service of a year and a half by John A. Greenlee, the position was accorded Richard S. Bear, a biochemist who had previously had a brief service at the College and who came to the position from M. I. T. Also in the decade immediately preceding the Centennial, Ralph M. Hixon, who had succeeded W. F. Coover as head of chemistry, was transferred to the deanship of the Graduate College.

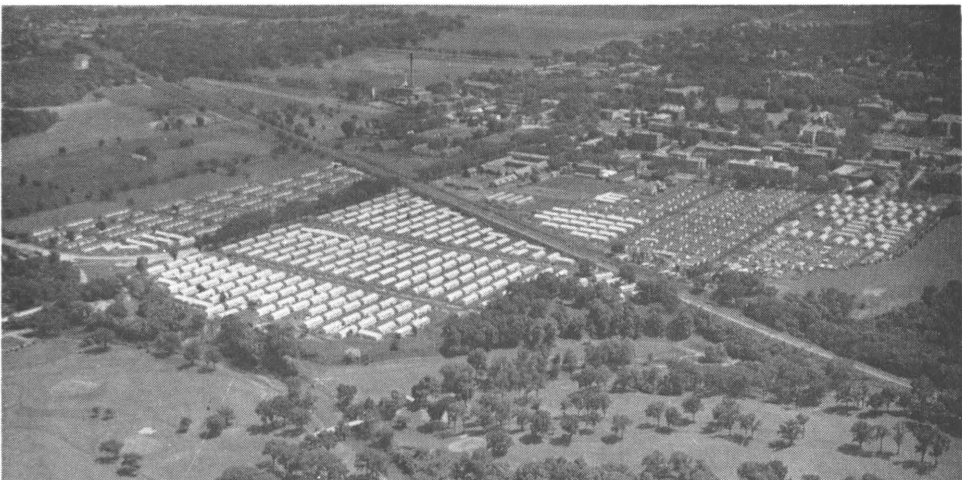
Robert W. Orr, in assuming the directorship of the library, made possible the manifold services of Charles

Harvey Brown on and off the campus, in bibliography, and surveys and advice to collegiate libraries and the Library of Congress. Theodore E. Bancroft, Ph. D., '43, followed Snedecor as director of the laboratory and head of the statistical department. J. C. Schilleter, Ph. D., '30, took over from Madge McGlade the big business and public relations enterprise of director of housing. Death came prematurely to James R. Sage, the first and conspicuously capable registrar. Arthur M. Gowan, trained for the statistical duties as a mathematician and for those involving state inter-institutional relations as a holder of degrees from all three of them, succeeded to the post.

These years marked the passing of leaders whose service went back to formative days to which they had signally contributed. They were also attended by the premature loss of a distressingly large number of still active and highly achieving scholars — the victims in most cases of the unusual physical and emotional strain of the world conflict and its aftermath.

Both the prevailing unrest and the great expansion of the public service and of industry and business led to the transfer of a much larger than normal number to governmental, commercial, or more attractive teaching and research positions in other institutions. This was true especially of the younger staff members. But in spite of the unusual post-war demand for scientific talent, the College in all divisions was able to attract scholars of repute and promise to fill the gaps of death, retirement, and resignation. In general the replacements were forward-looking scholars with a broad view of their subject in relation to the total program and with positive research interests.

With all the awareness of and preparedness for antici-



Pammel Court, the temporary student housing project which was started in 1946, was still accommodating peak numbers at the Centennial. This air shot looks southeast.

pated post-war needs, here as elsewhere, the actual response of G. I.'s to the educational opportunities offered by their bill of rights was well nigh overwhelming. The steadily mounting enrollment, which by 1946-1947 exceeded ten thousand, created a major emergency in housing and taxed instructional facilities to the limit.

The housing situation was complicated by the large proportion of married students. The main solution was reached by a committee consisting of Mrs. McGlade, Boyne H. Platt, business manager, and Ben W. Schaefer, physical plant superintendent. It was the founding of a village north of the main campus, known as Pammel Court, consisting of metal barracks, demountable houses, quonset huts, and trailers, procured largely from war surplus. This main center was supplemented by barracks for single men in the "silver city" across from the hospital, rooms under the east stadium, the former military horse barn, and a trailer camp on the western edge of the city. Large units were added to the Friley court group in 1950 and 1954.

Instructional needs were subject to the same heroic improvisation. In 1947 a dozen substantial two-story frame buildings were erected for class rooms and offices — plain but serviceable and relatively commodious. Six one-story huts from the former Civilian Conservation Corps camp were added to these, for various uses. For the year 1946–1947 a measure of relief was found by housing and training some five hundred freshmen in Engineering and Science at Camp Dodge, north of Des Moines. The program was carried out satisfactorily under the directorship of James P. McKean of general engineering and his assistant Wendell H. Bragonier, then assistant to the director of the Industrial Science Institute. But it was most fortunate that the prolonged institutional decentralization experienced in some states was not necessitated. The electrical engineering building, the agronomy building, and the commodious addition to the science hall helped meet permanent needs — in part and tardily. Various additions and supplemental constructions also helped to ease the cramped and congested conditions.

The physical plant — buildings and their equipment — has always been essential to organized learning. The ambulatory medieval masters and students had to find their lofts and the devoted log colleges had to establish their cabins. Even the legendary socratic genius of a Mark Hopkins required its log as a symbol of propinquity and continuity. The earlier requirements were elemental; the yards and campuses of all early institutions indicate simple living, if not always high thinking. But with the library, the laboratory, the shops, the varied and complicated contrivances of audio-visual presentation, the robotistic computing and testing mechanisms, to the latest refinements —



Despite sky-rocketing enrollments, new buildings on the campus in the mid-century years were not numerous. Those which were constructed, however, had a "new look" — as is typified by Electrical Engineering Building completed in 1950.

all heated, conditioned, lighted, and sanitized according to prevailing standards — the demands upon the buildings, grounds, and properties division of a mass educational establishment seem well-nigh insatiable. The requirements of a technological institution are especially costly and exacting. (In recent years certain institutions have put around fifty millions into their "logs" within a single quadrennium.)

Nonetheless, in this atomic age as at any time, the problems relating to the selection, organizing, and imparting of the curricula were the basic and enduring ones. After all the "bricks and mortar," even the marble aspects of an institution — essential as they may be — are but means to

the instructional and research reason for existence, as officialdom and the public need to be reminded from time to time.

In spite of the imperative professional demands for new subject matter and the still higher standards that intensified research indicated in all of the technical disciplines, the distinctive trend of the post-war years was toward a recognition of the real and essential values of general education, not only as an appropriate coordinate division of land-grant education, but for its essential place in technological training. Even the humanities were no longer to be shrugged off as just "cultural stuff."

► ENDORSE BROADER PROGRAMS

For this altered emphasis Friley was a consistent and persistent protagonist. In convocation and faculty addresses, reports, curricular adjustments, and key appointments as dean of Science and throughout his administration, he was tirelessly insistent in urging the rounded-out program — "the education of the whole person." Administrative boards, key heads, and staff members were in general agreement, and increasingly in specific agreement. The differences had been and remained more a matter of departments than of divisions; certain general science disciplines were loath to go much beyond the clearly "supporting" areas. More reasoned advance was made in this pivotal problem than in all previous years. The curricula in Science became broader and more flexible with lessening prescription and a wider range of electives. With this marked gain, the division was still short of the more advanced land-grant programs; the humanities were not yet accorded major status.

In spite of professional pressure the technical divisions ungrudgingly found space for general electives or in some

cases requirements, beyond the directly supporting subjects. In accord with the standard adopted for all accredited colleges, the Veterinary Division, beginning in 1949-1950 required two years of pre-professional college study for entrance. With a surplus of applicants the division was in a position to apply a rigid selective process.

Various teaching devices, some of them growing out of war experiences, were employed with measurable success. There were extended trials of large lecture groups and of laboratory demonstrations. At the other extreme, small conference groups were allowed to go largely on their own. Visual instruction found increasing and improving utilization. The College pioneered in television as it had in radio. Experimental closed circuit classes were tried. Subjects of wide appeal, with especially effective instructors, were provided for the general audience, with or without credit. Lectures on current issues, history, government, literature, and art were given by specialists — home and imported. Some of the more experimental undertakings were financed by educational foundations.

► ADAPT TO ELECTRONIC AGE

Electrical engineering and physics provided training for electronic experts and speech and technical journalism gave special courses in the preparation and presentation of radio and television programs. All divisions and most departments contributed to the technique or content. A committee on radio and television education representing the main areas involved was organized with Joseph H. North, of English and speech, as coordinator. Testing programs were conducted by a special bureau using the facilities of the most perfected computing machines.



No horizon is too broad to be challenged in the sharing of knowledge. Iowa State College geared itself to the television age in education, and as a pioneer in this area, coupled vision with voice wherever pertinent developments were being unfolded.

Research in all areas was broadened and systematized with emphasis as always upon the current agricultural and industrial conditions. Increasing funds for the stations came from commercial concerns seeking to improve products or develop new ones, regional interests with special problems, and research foundations. Following the war the federal government transferred to the College more than 1,400 acres from its ordnance plant at Ankeny as a very substantial addition to the Agricultural Experiment Station's experimental domain.

The Agricultural and Home Economics Extension Service — freed from entangling alliances with agricultural or-

ganizations, and utilizing the most advanced devices and techniques of communication and demonstration — grew steadily in effective appeal and service.

A dozen depleted farms — a gift to the College by C. R. Musser of Muscatine — were operated through an agricultural foundation as a unique demonstration of regional rehabilitation and sound management. James J. Wallace, '16, served as general manager of the projects.

During and following the war the conducting of the general farm and home week, which had become too large and varied to be concentrated in so brief a period, was replaced by radio discussions and gatherings of special groups. For both adult and youth groups, regular short courses in the technical divisions continued increasingly to provide special training for a wide and varied range of occupational, cultural, recreational, and community welfare interests. This progressively significant branch of instruction was organized under the directorship of Russell M. Vifquain. In July, 1946, the *Iowa Farm Economist* (1935–1946) and the *Farm Science Reporter* (1940–1946) were combined in the informative and attractive *Iowa Farm Science*, issued jointly by the station and the extension service.

Staff members, in addition to the burdens of a total program expanding at all points faster than the available provisions of equipment and personnel, were confronted at the turbulent, uncertain mid-century by special hazards, whether in teaching, research, extension, or as in a considerable number of cases, combining all three functions. It was a period of a markedly inflated economy with a prevailing high standard of living. Accelerated by the peak income of the war years and mounting with the illusory measure of values, this group of "white-collared" workers, with fixed

and slowly changing money income, was especially hard hit. The emergency campaigns conducted by the leading private institutions among wealthy alumni and, in some cases, materially supplemented by benevolent foundations, were not feasible for state institutions. Any considerable approach to academic "parity" came hard with legislators accountable to economy-minded constituents.

In addition to the financial risks of the post-war era, there also were those of freedom and security. The real perils of the cold war and the exposed menace of subversive conspiracies provided the excuse and opportunity for reactionary groups and opportunist demagogues to arouse popular hysteria by irresponsible, in some cases wholly fabricated allegations against all critics of ultra-conservatism in home and foreign policies. Authors, artists, clergymen, and teachers were the especial victims of such malign harassment. Academic freedom was seriously imperiled in a considerable number of institutions, public and private. Staff members were accused of communist membership, sympathy, or association, however remote or tenuous. Directories of dangerous objectionables were gratuitously compiled by some who could have qualified for prominent inclusion.

In a number of states test loyalty oaths were required of teachers in public schools and colleges. State colleges and universities by reason of their public support and sensitivity to popular pressures were unusually exposed to such perils.

Happily, Iowa colleges were not subjected to the distressing and discrediting dissensions and misrepresentations that these controversies involved. A bill to exact the special oath from teachers was introduced in the state senate but received scant support. There were occasional efforts to

twist and contort dissentient and radical ideas, especially economic, as well as pacifistic convictions, into disloyalty and communistic leanings.

A national official of the Sons of the American Revolution, after attending a chapter meeting in Ames in which the discussion emphasized the enlightened program of civic training at the College, delivered a sensational tirade in New England in which he charged that a large proportion of the staff at Iowa State College were communists. As expected, the deliberate slander was widely publicized. A challenge from the local officers of the organization to name a single staff member of the alleged affiliation was ignored and no retraction was made by the spokesman or the society which he misrepresented.

The avowed pacifist views of two or three members of the staff in the post-war years met bitter attack and demands for removal by veteran and patriotic societies, but no evidence of subversive act or intent was presented. In fact no responsible charge of disloyalty in statement or conduct was made against any one connected with the College, although the views of a few were highly objectionable to many on and off the campus.

► NO CURB OF FREEDOMS

With all the periodical unrest, clashes of personalities, and occasional maladjustments through the years, it is highly significant that in a faculty by no means lacking in strong individualists and confirmed opinionists, there was not in this or in any previous administration, a single clear-cut case of abridgment or restraint of the freedom of teaching and research. The College was thus spared the unfortunate notoriety of an investigation by a committee of the A. A.

U. P., than which, in the opinion of a veteran educator, any president would prefer the infliction of the plagues of Egypt.

In these years as in the twenties and thirties and during the global war, the few cases involving individual grievances that came to public attention concerned clashes of rival personalities and misunderstandings over administrative policies and procedures. There were departmental dissensions over headships that a system of elected chairmen might have avoided. At the same time there was a belief among influential staff members and alumni that in his zeal for "getting on," Friley was at times impatient of the traditionally slow process of discussion and consultation in determining policies and adjusting differences. He was adept in delegating routine details, but reluctant in the transfer or sharing of policy making. His direct and decisive action certainly got things done and obviated the slow motion of drift, gradualism, and tiresome procedural delays. Such forthrightness was generally welcomed by those who favored the particular policy or decision, but at the same time other professorial, student, and alumni sensibilities were affronted and controversies on and off the campus aroused. Still more unfortunate was the fact that, at times, opposition was aroused for policies which in themselves were generally favored.

► ACTION DEMANDED

Per contra, a strong plea in abatement might be made, if it were thought necessary, in the unusual demands for immediate and definite action which these years presented, and in the lack of the agencies and usages of a workable representative government. These conditions gave unusual incentive, and at times certainly, a justification for increased executive powers. A power vacuum existed which a strong

executive was certain to seek to fill — and in this case had filled to a notable degree.

With multiplied staff and accelerated program the old-time general and divisional faculty meetings — with deliberations and procedures continuing from small college days — had partly by design but more largely by default fallen into a state of formal passivity. The board of deans that had served as both an advisory and appellant body had by added membership and centralizing trends been reduced to a subordinate administrative agency. A “council advisory to the president,” which Friley had inherited, had never justified its name and was abolished with general satisfaction. A “senate” or “council” — representative of faculty opinion and with recognized status and adequate authority — had been discussed for years. But natural academic conservatism and individualism, along with the unusual burden and heat of the days’ labors in the most hectic quarter century that this or any college had experienced, delayed the formation and adaptation of a plan that would arouse adequate interest and support of the staff and secure the approval of the board.

► FACULTY NOT PRESSING

Despite all protests to the contrary, the average professor the country over, with absorbing interest in teaching and research, if allowed to go along in his special field and in his own particular way was not apt to be greatly concerned in general policy making and in the niceties of administrative procedures. In this, academic democracy in practice has followed all too closely the political. On the campus and in the state a vigorous “campaign of education” for true faculty participation was clearly indicated.

However, before any plan of faculty participation could

function effectively, there was the preliminary need at this stage for a definite allocation and delimiting of authority within the state institutions, from board to staff. This deterrent to smooth and effective functioning was emphasized in the periodical survey of state higher education in 1950, conducted by the dean of educational surveyors, George D. Strayer, with the assistance of Arthur J. Klein who had directed the general land-grant survey of 1930.

► BOARD IS TARGET

This time the adverse criticism was directed mainly against the board itself, pointing up its failure to make a definite and convenient codification of its statutes and by-laws and a compilation of administrative decisions on major policies as a guide and precedent for future action. As a further step toward regular and responsible operation, a specific allocation of the duties of the different members of the finance committee was urged. The report recommended fuller cooperation and collaboration between the board and the presidents in all policy making. The beginning of inter-institutional committees was highly commended and it was recommended that they be extended and regularized as a means of more effective cooperation and coordination of the programs of instruction and research. In research, the alleged dichotomy between "pure" and "applied" was wisely and sensibly reprobated. Meanwhile the throng of collegians for whom the College primarily existed was making adjustment to the new era of higher education.

The tone and behavior of the post-war student body was considerably modified, for a time, by the influx of the G. I.'s. War experiences, and in many cases family responsibilities, lent a serious manner, persistent objective, and cooperative

attitude — quite in contrast to the typical undergraduate norm. As a group the veterans were more studious and in the first year or two made a markedly better scholastic showing than the average. Many maintained the high plane of application and conduct to graduation, but some succumbed to traditional collegiate ways, in relaxed effort and diffused interests.

The typical mid-century undergraduate was motivated between the extremes of serious concern — reasoned or emotional — for the state of the nation and the universe on the one hand, and indulgence in erratic pranks and mob demonstrations on the other. With modern mass communication there developed increasingly a uniform climate of collegian opinion that brought similar attitudes and reactions for all regions. There seemed to be a conviction that in recreation, dress, and conduct the prevalent trends set by a few large institutions, like the Paris fashions, had to be followed to demonstrate sophistication and to receive a due share of local and news service “features.” Thus after decently refraining from the inane dormitory raids until the interest in this particular academic aberration had begun to wane, the halls and houses apparently felt that the College would lose cast if its participation were not registered. Veisheathon runs and torch lighting by state and national dignitaries were original and unique demonstrations that were harmless and supposedly reflected a classical appreciation.

The Korean conflict with the renewal of mobilization and the threat of general war was not only unsettling but constructively sobering. Henry A. Wallace’s observation, in 1948, that Iowa State College students were not aware of what was going on in the world gave perhaps an added spur

to efforts already being undertaken to make the campus community more conversant with national and world affairs. At the beginning of 1951 the Cardinal Guild endorsed and helped to promote a "four-point program" of general information, including the president's weekly column in the *Daily*, discussing topics specially related to student interests; the opinions of publicists in varied fields in the college lecture course; student-faculty discussions in the coffee forum; and informal group discussions sponsored by campus organizations. The *Daily* published a list of staff members who were available to lead discussions on domestic and foreign issues in halls and houses. Their competence and versatility were vouched for in confident assurance that they were not only masters of their specialties but that their training and breadth of interest was such that they could "talk freely on almost any subject." From the campaign of 1950, the board removed the ban on political addresses on the campus and student party leaders staged rival rallies with speeches by state and national candidates.

► EVIDENCES OF MATURITY

There was a slow but steady advance toward representative democracy as the fuller implications of "student government" came to be appreciated. Cardinal Guild sought valiantly to attain to the realities of "politics and administration" by initiating and carrying out specific projects, particularly those having to do with the interests and welfare of the students. Party programs became more specific and meaningful. The creation of a student "senate" seemed to the student citizenry a desirable step in the separation of powers. The pan-hellenic council sought to guide their organizations into more secure and constructive poli-

cies of finance and living. A notable departure, in line with a national trend, was to substitute gracious services for the inept barbarities of "hell week." The Ward system continued to bring a measure of recreation and good cheer as did the residence organizations. The Pammel Court community had its own particular system of municipal government whose considerable activities were evidenced by complaints and controversies aired in the *Daily*.

Direct student cooperation with the administration and staff was secured by representation on the college councils of particular concern to their interests, as well as on special committees on general institutional undertakings. Divisional councils involved staff-student cooperation in curriculum making and divisional activities. Undoubtedly there was a desire to extend these relationships as soon and as fully as a reasoned and responsible student opinion made feasible. Such experiences provided realistic training for "careers" of varied sorts and a basis for understanding alumni relations.

The alumni in general were showing increasing awareness and rational interest in the problems and needs of their College. Strong national and regional organizations were advised and serviced by the central office directed by a uniquely understanding and inspiring executive secretary, Wallace E. Barron, '28. The *Alumnus*, and the *News of Iowa State* issued by the information service, kept the nationally and world-wide scattered sons and daughters in touch with the kaleidoscopic campus scene. Inevitably old grads had their prejudices extending at times to obsessions and phobias — carried over in most cases from undergraduate experiences.

Football in these years seldom gave occasion for pre-

game demonstrations, which in the good old days had disrupted classes, or for destructive celebrations. While in other sports the conference pace was well maintained, the gridiron fortunes after the departure of the war recruits steadily declined to the 63-0 crushing defeat in 1946, by the Oklahoma "Sooners." A booster club and a change of coaching staff brought but slight and temporary alleviation to a problem that was to engage the serious attention of the administration and the alumni.

After prolonged and heated discussion, an alumni committee was set up, headed by Kenneth P. Wells, '32, who had made a notable record as football coach of the Ames high school. In early 1947 it presented a report reviewing all aspects of the situation and presenting drastic recommendations. To inaugurate the new day and "deal," there was proposed the strengthening of the present athletic council and the football coaching staff, a greater cooperation by the academic staff, athletic scholarships, a physical education major, and more adequate equipment. It sought the full benefits permitted by the National Collegiate Athletic Association. The report brought no sweeping changes from the administration immediately, but over a period of years many of its suggestions were adopted gradually.

► RECOGNIZE ACHIEVEMENT

The serious concern of a growing number of former students extended to the scholastic and research programs. The annual alumni awards: the special recognition medal, the Marston medal to alumni engineers of outstanding achievement, the senior prize, the Chicago Club merit awards, and the faculty citations were all a recognition of achievement in scholarship and leadership. Notable be-

quests like those of LaVerne Noyes, '72, Carrie Lane Chapman Catt, '80, and Wilfred G. Lane, '09, and Walter G. Wells, '10, were all directed to the encouragement and advancement of scholarly effort. In 1934 the Alumni Association was incorporated to allow the receipt and administering of gifts.

As a function of the organization a board of patent trustees was created to supervise the patenting and licensing of the inventions of college investigators. To safeguard the funds of the Association from being tied up in infringement litigations, with the increasing number of such patentable findings, in 1938 all of its interests in patents were officially transferred to an Iowa State College Research Foundation. In addition to insuring the proper use of the patents and remunerating the inventors, the College obtained a modest addition to its research funds. Quincy C. Ayres, of agricultural engineering, served as executive officer from the beginning.

► ORGANIZED APPEAL

Most widely participated in and appropriate in objectives has been the Alumni Achievement Fund. By World War II something over \$100,000 had been raised through the association. The greatly increased enrollment and the great increase of unfinanced projects indicated a pressing need for scholarships, subsidies for conducting and publishing research studies, campus memorials, and other undertakings not provided for in the regular support funds. The inspiring term "achievement" was added to the intensified campaign. Following a thorough organization, the first of the "achievement" campaigns was launched in 1951. The response within six years from fewer than three thousand

donors of \$48,000 to over six and a half thousand giving nearly a quarter million was an assurance of future possibilities. The existence of such an expanding fund suggested a growing number of worthy and appropriate undertakings that had not been available through the regular channels of financing.

Such an understanding interest in college affairs, and response to its needs, was of especial significance at a time when increasing numbers of graduates were coming to positions of leadership in technology, corporate business, the professions, and the public service. It "meant something to be a graduate of Iowa State College," not only to the student but as well to the state and nation and, consequently, to the rating and recognition of the College — nationally and internationally.