"Then came the Great War!" This tragic interruption to so many promising enterprises was especially disrupting to American higher education, which was in the midst of unexampled achievements. But there was no hesitation in the academic realm; all other interests and aims were strictly subordinated to the national security. The land-grant colleges with their obligations of military training and their diversified programs of instruction, research, and extension were challenged to "do their bit," which with the paramount demands of technical military training, adaptation and conservation of resources, and increased food production loomed as a major service.

**THE LAND-GRA NT COLLEGES AND THE WAR**

The world struggle was to provide the first real test of the military provision of the Morrill Act; the Spanish-American War had not made sufficient demands upon the system to give adequate demonstration of its possibilities. It was only recently that the government and the colleges themselves had awakened to the backwardness and inadequacy of the training and equipment previously provided. In an address before the land-grant association in 1913 Edward Orton, dean of engineering of Ohio State University, reviewed the unsystematic and unstandardized character of the instruction and urged the establishment of officers' training corps which would fit graduates for army service. Taking note of this address, the
college committee on course of study recommended a summer training camp but felt that other extensions and reorganizations were not advisable at the time.

THE CAMPUS MOBILIZES

The lesson of the European war altered faculty sentiment here as elsewhere. In December, 1915, at the insistence of the War Department, the drill requirement was increased from one to two years, in spite of disarrangement of class schedules, and a year later, following the passage of the national defense act with its provision for reserve officer training at the colleges and a conference of the chief of staff with land-grant representatives, the faculty unanimously petitioned the War Department for the immediate establishment of an R. O. T. C. unit and provision for four years of drill. Throughout the academic year distinguished speakers had presented to college audiences various aspects of the war issues and of the problem of preparedness. Among them were ex-President Taft, ex-Secretary Bryan, Carl Vrooman, assistant secretary of agriculture, Dean L. H. Bailey, and H. H. Powers, the economist and publicist. In turn President Pearson discussed the College’s responsibility for preparedness before the state teachers’ convention. Such discussions, along with the increased emphasis upon military drill, helped the College to adjust its thinking and program to war realities in the spring of 1917.

At the beginning of that fateful year, on the eve of war, campus enthusiasm for participation was high. In January a relief fund of $5,000 was raised for college students in war prisons—a forerunner of the “drives” that were to be a characteristic feature of the war period. Early in March sixty staff members applied for a reserve unit and began immediate training. During the month questionnaires were sent to members of the faculty, alumni, and students regarding training and experience for war service. Plans were made for a summer officers’ training camp in technical subjects and for recruiting
two troops of cavalry and a company of engineers. The faculty also went on record as favoring compulsory universal military service. With such preliminary actions and proposals, the declaration of war did not find the College unprepared.

Early in April the campus became fully mobilized. Drill for all able-bodied male students was required each day from 11:00 to 12:15, with an optional period from 4:00 to 6:00 in the afternoon, which most students were expected to take. Two hundred of the faculty were on hand for an initial drill period and many of them persisted. The women no less devotedly were enlisted for Red Cross work and the conservation of food and clothing. In spite of the advice of the college authorities and the adjutant general to continue their special training until called for service, a large number of students left before the end of the college year. Between the declaration of war and May 28 no less than 500 departed—200 for active military service and 300 for employment in agriculture and industry. To facilitate student employment on farm and in factory, as well as to accelerate the technical training as much as possible before enlistment, the work in the technical divisions was speeded up in the spring; and in the fall a new term was started in November to accommodate late comers from the farms. In veterinary medicine, where the army need was acute, the work was hastened by continuous summer training, and nineteen of the class of twenty-one enlisted for immediate service.

THE AMBULANCE UNIT

The first and the only distinctive organization to be recruited and sent from the College was the Ames Ambulance Unit of thirty-six students, whose departure on May 31 was observed by a special convocation at which a flag was presented. The unit was enlisted in the regular army on June 4, 1917. After a year's training at Camp Crane, Allentown, Pennsylvania, the section was sent to the Italian-Austrian
front and was the first American unit to reach this area. Its effective service of nearly a year won an army corps citation and an Italian cross of war.

PEARSON CALLED TO WASHINGTON

Staff members were no less zealous for active service; before the end of the spring semester a number had enlisted or entered special civilian service. The Board gave its encouragement by a ruling that enlisting faculty members might retain their positions. The example of outside service was set by the President himself, who late in April answered a call from Secretary Houston to come to Washington as a special assistant in the promotion of increased food production, and in August he was made an assistant secretary of agriculture. Dean Stanton again, for the fourth time, was made acting president and gave himself without stint to the double task of administering a militarized college and of uniting the institution in all its elements and functions for the common cause.

The latter duty was facilitated by the remarkable unanimity of sentiment of the College and the community in support of the war. Ames was spared the suspicions, espionage, and coercive demonstrations which estranged and embittered many college communities. On April 5 a big mass meeting addressed by the journalist Lafe Young brought patriotic fervor to fever heat. Later in the month the general drill and other war service training was inaugurated by an all-college outdoor convocation.

A WAR COMMENCEMENT

The commencement exercises two months later on the evening of June 6, gave further expression to the aroused martial spirit. Ex-President William Howard Taft was the appropriate speaker. A year before in a series of addresses in behalf of the League to Enforce Peace he had captivated the
campus community and at this critical time he was welcomed with spontaneous enthusiasm. The attendant conditions increased the excitement. To enable the distinguished speaker to meet the engagement, the scheduled exercises were advanced from Thursday morning to Wednesday evening, and President Pearson came from Washington to preside. The national registration of the preceding day had aroused the whole nation.

From beginning to end the address was a vigorous and arousing patriotic appeal. Members of his audience—students, faculty, and visitors alike—recall the unusual earnestness and forcefulness of his presentation and according to the contemporary report in the *Alumnus* the capacity crowd of over three thousand was held “spell-bound” by the speaker’s “consummate logic.”

Taft quoted with approval the suggestion of Secretary Lane that all college addresses of that year should deal with the war issues. Such a consideration he found especially appropriate for a land-grant college which from the beginning “had an intimation of the necessity for military drill; one of that class of colleges and universities which teach and make men for the particular lines of activity that are of the utmost importance in carrying on the great war that now faces us.” His review of the issues of the struggle, though not lacking in the characteristic witty asides which always delighted college audiences, was underlaid with stern and solemn admonition. A million lives, he warned, might be sacrificed “to rid ourselves of a domination that is unbearable if we permit it to continue.” Naturally this was the most widely quoted statement of the address.

The enthusiasm continued through the stress and strain of study and drill, reorganized programs, and financial sacrifice. The relief drive in the fall netted nearly $22,000. Other appeals met proportionately general and generous responses.
There remained the problem of utilizing the special resources of the College—the equipment and the technical ability—in the most effective manner.

THE S. A. T. C. EXPERIMENT

The greatest problem of the selective service act of May 12, 1917, proved to be the choice of men for the different branches of the service, especially to secure an adequate number of technically trained. By the fall of that year army divisions were being disorganized by the transfer of experts for special duty. There was an urgent need for utilizing all existing facilities for technical training. To secure this essential talent a committee on education and special training was created by the War Department in February, 1918. To act with the committee the Secretary appointed an advisory civilian board, composed of representative educational administrators and specialists. President Pearson was the land-grant college representative of this board.

The first plan to be formulated was that of training drafted men in the mechanical trades and skills most pressingly needed at the technical schools which had the proper equipment and accommodations. On April 15, 1918, the first unit of 500 soldiers, mainly from Missouri, was sent to Iowa State for an eight-weeks training as auto mechanics, blacksmiths, or machinists. At the end of the period they were replaced by another contingent for similar training. A contract for housing and board was made with the College, and barracks were provided under the bleachers on State Field. The instruction, mainly in practical assembly, repair, and operation processes, entirely separate from collegiate work, was under the direction of Professor W. H. Meeker of mechanical engineering. In the later military organization of the College the mechanical training detachments came to be designated as “section B” of the Student Army Training Corps.

The creating of such a corps was a project for combining military training with collegiate instruction. As formulated
in the spring and summer of 1918, the plan called for the voluntary enlistment into a cadet reserve corps of students between the ages of eighteen and twenty-one, but the subsequent extension of the draft to the lower age necessitated a substitute plan, which was authorized in the man-power act of August 31, 1918. This provided for the voluntary induction into active service of college students of these age limits. The effect was to combine collegiate campus and army camp, scholastic study and military drill, and military authority and institutional administration. The students received soldiers’ compensation, and the College was paid for their housing and subsistence according to contractual stipulation. The distinct separation of the collegiate and vocational sections was maintained in organization and instruction. The latter were continued in the improvised barracks, and the collegiate companies were lodged in the fraternity houses, which were sufficiently accessible to the drill field to be approved for the purpose. The gymnasium was utilized as a mess hall.

Theoretically the instructional emphasis was not seriously unbalanced. In the collegiate section 11 hours per week were assigned to the military and 42 to the non-military; and in the mechanical, where less course preparation was required, the proportions were \(15\frac{1}{2}\) to 33. The special subject contribution was a course on the issues underlying the war—historical, institutional, and philosophical. This key required subject was organized and directed at Iowa State by Professor Louis B. Schmidt, of the history-psychology department. Brigadier General James Rush Lincoln, professor of military tactics, who had been placed on the army retired list in 1908, was in command of the corps until October 24 when he was relieved from this service and restored to the active list with the rank of major. He was succeeded in command by Captain A. L. Lane, who had been serving as his adjutant.

On October 1, 1918, the campus witnessed one of its most impressive ceremonies when 1,200 men were inducted into the national army. General Lincoln administered the oath,
and inspirational addresses were made by acting-President Stanton and Governor William L. Harding. There was to be little else that was inspiring in the succeeding weeks.

**THE "FLU" EPIDEMIC**

Before the training was fully under way the entire program was disrupted by the influenza scourge. Cases appeared the first week, and by the second the virulent epidemic had become a veritable plague. There were 1,250 cases at one time. All facilities and aids were put under requisition. The first wing of the college hospital, opened in April, was used exclusively for pneumonia cases. The gymnasium, a church basement, and dwelling houses became improvised wards. Dr. Charles J. Tilden, the college physician, and his nursing staff secured such emergency support as possible from the depleted ranks of local physicians and Red Cross nurses. The campus was placed under strict quarantine, and passes were required for travel between the Fourth Ward and the downtown district. Eight girls who broke quarantine by visiting their homes at the week end were confined to their rooms under strict guard until the danger of infection was passed. All work was suspended for a week, and the schedule was more or less broken the rest of the quarter by recurring outbreaks of the malady. On October 25 the editor of the *Student* stated that the success in combating the contagion had been "little short of miraculous" and gave assurance that the disease was now "literally stamped out." On November 12, the day following the armistice, 100 cases were reported. From October 8 to November 27, fifty-one deaths were recorded in the corps—twenty-five in the collegiate section and twenty-six in the mechanical detachment.

**APPRaisal OF THE S. A. T. C.**

After such devastating interruption the program, military and scholastic, was hardly launched when the armistice
brought disorganization and unrest pending final demobilization. The S. A. T. C. experiment thus had a most inadequate trial. However, there had been opportunity to demonstrate the more obvious weaknesses as well as the possibilities of this system of selective military training. The emergency nature of the organization was evident at every turn; the plan had not been thought through at any point. Instructions from both the military and civilian committees were consequently often conflicting and ambiguous. The attempt to combine full programs of drill and study, though theoretically plausible, in practice proved even more ineffective than the old discredited manual labor system. Physically exhausted soldiers could not be mentally alert students, in spite of the most carefully outlined and clearly presented subject matter and the most strictly supervised study periods. And of necessity in an army camp the military requirements in training, service, and discipline must take precedence. The system of dual authority, which was at the very best tolerable, offered constant occasion for friction and cross-purposed bickering. While the open rupture of civil and military relations that occurred in some state institutions was avoided, feeling at times became tense, and finally the mediation of mutual friends on the finance committee was necessary to re-establish harmony and secure a cooperative working agreement between the experienced executive and the veteran commander. In spite of all handicaps, inherent and incidental, real contributions to the cause were made. There were inducted into the collegiate section 1,600 men; of whom 189 were transferred to officers’ training camps. In addition, at the time of the armistice, 50 had been selected for final examination for the air service. In the vocational section nearly 2,000 men were trained—1,707 auto mechanics, 147 blacksmiths, and 129 machinists.

The general interest, attitude, and as conditions permitted, efforts of the soldier-students were reported as highly commendable. There was evidence that the war issues lectures
were contributing to more intelligent and reasoned thinking on national and world problems. Both Professors Meeker and Schmidt in their official reports, while frankly recognizing the limitations of the training, felt that as an emergency war measure it had been justified and that in utilizing its plant and staff in this way the College had rendered a real and definite war service. But however willingly given, the service was rendered the "hard way," and there was undisguised relief when the "nightmare of the S. A. T. C." was only a memory.

CONTRIBUTIONS TO THE WAR INDUSTRIES

Military training, essential as it must be, was only one part of the war service conducted on or directed from the campus. Various members of the staff, in addition to increased departmental duties, lectured and gave advice on courses of study at the army camps. On the side, staff members participated in the campaigns for the Red Cross and other war charities, the sale of liberty bonds, and similar public service. The research program was given up to war activities and industries. The Agricultural Experiment Station centered its whole effort on increased and readjusted production. The engineering staff gave special attention to problems of military communication, mapping, camp construction, and the conservation of fuel. Chemistry experimented on war gases and nutritional studies of food substitutes. Bacteriology, botany, and zoology were concerned with various aspects of production and conservation. Home economics motivated its teaching and research programs by practical war needs in food, clothing, and health.

Through its extension service the College became the great center for organizing campaigns of production and thrift in the state. The directors of the stations and of the extension service and the dean of home economics represented the state on the great national boards having to do with the mobilizing of the
OVER HERE & OVER THERE

country's resources. The effectiveness of these systematic, organized efforts is indicated by the increase in production—grain 26 per cent and pork 20 per cent over the ten-year average, the ready adjustment to war substitutes, the relatively large purchases of government loans, and the no less real though less tangible contribution to public morale and national loyalty. In his commencement address in 1918, the French High Commissioner, M. Edouard de Billy paid tribute to the achievement of the Middle West in food production for the allies.

SERVICES BY STAFF AND ALUMNI

The college war program in its varied and constant activities was carried on with greatly depleted staff in instruction, research, and extension. Dean Anson Marston set the example for his division by resigning to become a major in an engineering battalion. He was succeeded by vice-Dean S. W. Beyer. Professor T. R. Agg was among other members of the division to enlist. Among technical experts in the direct military service, Dr. Max Levine was in command of a bacteriology laboratory at Dyon, France, in the division of sanitation of the medical department, and Dr. J. A. Wilkinson served in the chemical division. Vice-Dean H. E. Bemis with four colleagues helped to direct the veterinary service of the expeditionary force.

No less important civilian service was rendered by various staff members. Dean Buchanan and Professor G. B. MacDonald spent a summer in directing research at Washington. Professor William R. Raymond of the Department of English had a notable service for two years in Y camp work culminating in the directorship of the national educational program from the New York office. Arward Starbuck of the same department was for a time educational director at Camp Dodge. Charles L. Fitch of the horticultural extension staff, after spending fourteen months in Y work in home camps devoted
four more to educational work in an agricultural army school in France. Winifred Tilden, professor of physical education for women, became a recreational director in a nurse's camp in France in the fall of 1918. Fred W. Beckman of agricultural journalism served as the editor and publicity man for the post-armistice agricultural school in France.

These instances are representative of the variety of services rendered by the staff in connection with army service, both combatant and non-combatant. And whether at home or abroad they were certain to find alumni of the College, recent and mature, in key positions. Brigadier General Edward A. Kreger, '90, served as advocate general in France. Brigadier General H. A. Allen, ex '92, commanded the 67th Infantry. General Lincoln had three sons high in army service—Colonel Charles S. Lincoln, '94, and Colonel Franz Lincoln, ex '97, both of the general staff, and Lieutenant Colonel Rush B. Lincoln, '16, in the aviation service. It was estimated that approximately one-half of the Iowa State men who entered the actual service were commissioned. A summary soon after the war indicated the following distribution of ranks: 2 brigadier generals, 3 colonels, 14 lieutenant colonels, 33 majors, 117 captains, 224 first lieutenants, 430 second lieutenants, and 55 ensigns. Over one hundred special awards and decorations were made to Iowa State men. The total service roll of students, alumni, and faculty was approximately 6,000. Of these 118 are marked with the gold star of supreme sacrifice.

In this greatest national crisis since their creation, the land-grant colleges demonstrated their effectiveness in providing officers, training soldiers, and supplying the resources for carrying on the war. Their instructional, research, and extension functions found the fullest justification. By none of them was this service rendered more willingly and more effectively than by the representative from the heart of the Corn Belt. The spirit not only of those from the College who served at the
OVER HERE & OVER THERE

front "over there" but also of those who remained in less conspicuous service in teaching, research, organization, and extension efforts "over here" was reflected in the poem by a young New England teacher, Harold Willard Gleason, Harvard, '17, inspired by the marching song of Iowa State men in the 168th Infantry—"Fight! Ames! Fight!"

Fourth down, three, and the tension grows—
Stands are hushed—then the eager crowd
In the stadium, rows on rows,
Voice their war cry in cadence loud;
Crouching linemen react like springs;
Backs drive forward, the ball clutched tight
Nerved anew as the chorus rings
Over the chalk lines, "Fight! Ames! Fight!"

Fog and mud and a cheerless dawn;
Whispers pass through the sullen rain—
"Two minutes more, boys! Pass it out!"
Then—a whistle shrills—ends the strain;
Rattle of stones from the parapet
As soldiers scrambled to left and right
Mounting; eyes flashing brighter yet
At the heart stirring slogan, "Fight! Ames! Fight!"

Thus they answered when honor called,
Giving all to their country's needs;
Leaving their college stately walled—
Blazing her name with splendid deeds.
Heroes, late of the football field,
Doing battle for God and Right,
Shoulder to shoulder, never to yield,
With their glorious war cry, "Fight! Ames! Fight!"