

K.U. STUDENTS AND THE WAR

**SUGGESTIONS REGARDING THE SELEC-
TION OF COURSES AT THE UNIVERSITY
OF KANSAS DURING THE PRESENT PE-
RIOD OF CONFLICT AND INDUSTRIAL
EXPANSION**

THE UNIVERSITY OF KANSAS
Lawrence, Kansas
1942

TO K.U. STUDENTS:

In the pages that follow you will find a statement of the steps which the University of Kansas is taking to adapt its instruction to the needs of a nation at war. I hope that you will read it carefully and talk it over with your parents wherever possible so that you may be prepared to make important decisions about the remainder of your work in the University.

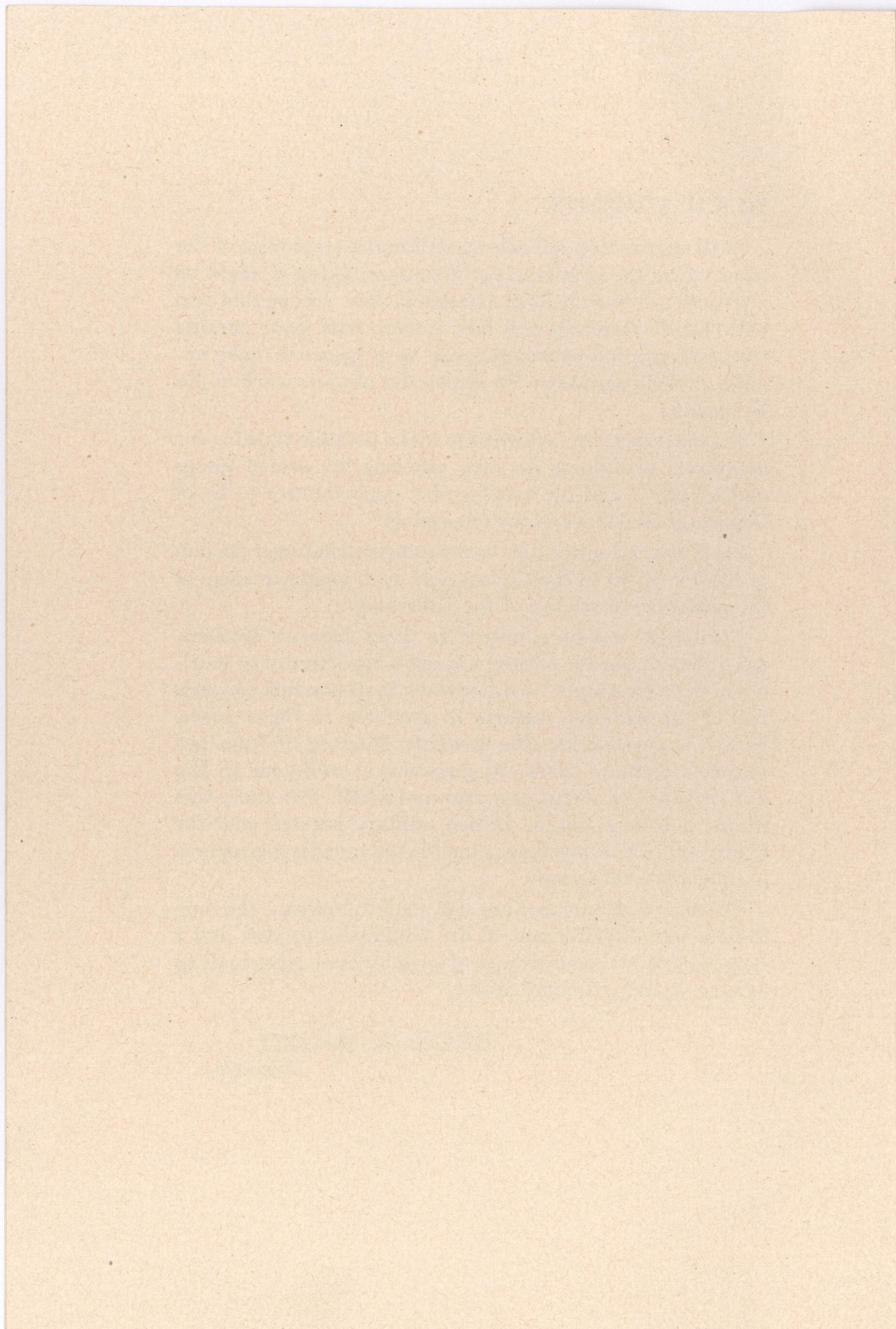
These courses are designed to make possible training for maximum usefulness for men entering the armed forces and industry, and for women new opportunities to be of important assistance in the emergency.

I call your attention also to the extended summer session of twelve weeks in the College and even longer in some of the professional schools of the University.

Freshmen will be admitted to these summer sessions. All other classes are offered the same opportunity to accelerate their programs. It has always been possible through use of the summer sessions to graduate in three years. Now it is possible for able students, entering in June and taking maximum work, to graduate at mid-year in the Junior year,—a saving of a year and a half. For many this means a college degree before military service, and for many others it means the saving of vital months in preparation for national service.

These new departures are designed to increase the usefulness and effectiveness of the University to you, and I hope you will take advantage of such of these opportunities as meet your particular needs.

DEANE W. MALOTT,
Chancellor.



KINDS OF UNIVERSITY TRAINING MOST NEEDED BY THE COUNTRY AT PRESENT

Both officials of the government and industrial leaders have indicated definitely the major needs of the nation which it is the particular province of colleges and universities to meet. Clearly the United States should be provided as quickly and as steadily as possible with more (1) physicians, (2) engineers, (3) nurses, (4) chemists, (5) physicists, (6) accountants, and (7) industrial managers. These classes of trained men and women will not only be indispensable during the period of the war, but most classes of them will continue to be needed after the country has happily returned to a condition of peace.

Juniors and seniors who have not already chosen a curriculum concerned with one of the academic fields just indicated will probably be unable to do anything about the matter now, except perhaps to enroll in one or more of the emergency courses discussed elsewhere in this pamphlet. Freshmen, sophomores, and entering students, however, may well wish to take the national needs into account in making plans for the months ahead. This is not to say that students are advised to shape their academic program solely on the basis of war conditions and requirements; but the knowledge of what services are deemed of paramount importance to the life of the country today should properly be one of their considerations.



A WORD ABOUT CERTAIN BASIC GENERAL COURSES

During the months which have passed since the country began actively to prepare for war, many former college students have discovered to their dismay how great is the

handicap imposed by ignorance of certain basic general courses—courses open to them, even urged upon them, while they were on the campus. Many a senior has lost the opportunity to join the staff of an industrial firm because he so cheerfully neglected the physical sciences. Many a young would-be officer has found himself barred from a training school because representatives of the army or navy consider important the mathematics which he so willingly escaped. A timely warning now may save others from the same sort of error.

MATHEMATICS. The value, especially, of College Algebra and Trigonometry is called to the attention of the general student, not only because these subjects are indispensable if one is to do some types of military work, but because, also, they are prerequisite to most courses in physical science. Incidentally, high-school seniors who are planning to enter the School of Engineering and Architecture should bear in mind that to gain admission an applicant must offer three units of credit in high-school mathematics, including one and one-half units in algebra, one unit in plane geometry, and one-half unit in solid geometry. Lacking these credits, one should try to make them up during the summer preceding admission by enrolling in the work in the summer session or through the Correspondence Study Bureau.

CHEMISTRY. In a time of industrial expansion it is better to know a little chemistry than none at all, if only because of the incidental use one can make of the knowledge. At the University there are two beginning courses in the subject. Chemistry I, offering five hours of credit, is designed primarily for those who wish to obtain a general knowledge of the principles of the science, but who expect to enroll for no more than one course. Chemistry II, likewise

offering five hours of credit, is so organized as to lead to the next work in the subject. Those who expect to continue with chemistry should of course begin with Chemistry II.

PHYSICS. The justification for taking one or more of the beginning courses in physics is even stronger than that for the enrollment in chemistry. Industry constantly draws on the knowledge and skills of the physicist; and military leaders, with the new instrument of radio in their hands and other scientific challenges to be investigated, have ever increasing use for men who have had some training in the physics laboratory. For example, both the army and navy are now actively searching for college men to be trained as meteorological officers. No candidate, however, is considered who has not had sound training both in mathematics (through integral calculus) and in physics. The courses in the subject at the University especially to be considered are two pairs of courses, Physics 3 and 4 and Physics 5a and 5b, either of which constitutes a basic one-year unit.



COURSES ESPECIALLY DESIGNED FOR THIS TIME OF WAR

In an attempt to offer students as many opportunities as possible for specialized training, even if only in some minor area of activity, we have organized a number of new courses—and in addition are calling attention here to some of our standard courses—which will, we feel, serve to develop special techniques or to impart specific bodies of knowledge which may prove useful to those entering actively upon service in the war, whether in the fighting forces or in an organization to maintain civilian morale or in industrial production. What use one may find for any of

these offerings will depend upon the rôle which he desires for himself in the days ahead or which is likely to be assigned him.

It is to be hoped that the student will carefully consider the courses in the list which follows and select any of them which his aptitudes and opportunities appear to justify him in taking. Not all the courses of value in preparing for the national undertaking are discussed, but the most important of those immediately useful in the emergency are listed and described below:

ASTRONOMY 40. NAVIGATION. Three hours credit. Second semester. A course designed to give students a working knowledge of navigation. The determination of time, longitude and latitude, with special emphasis on present methods used in navigation on the sea and in the air. Actual training in observation and in reduction of observations. Prerequisites, College Algebra and Trigonometry. Storer. (This is a modification of 182a, Practical Astronomy I.)

CIVIL ENGINEERING 11. ELEMENTARY SURVEYING. Three hours credit. Both semesters. Two hours of class work and one hour of field work. A brief course for those who are not studying to be civil engineers. Fee, \$1.50. Bradshaw, et al.

GEOLOGY 7. METEOROLOGY. Three hours credit. Both semesters. A study of the nature and causes of weather conditions, including consideration of atmospheric temperature, pressure, humidity, precipitation, and circulation; also work on synoptic charts and weather forecasting. This course is designed for those who wish to take up aviation or to enter the weather service. Prerequisites, two years of high school mathematics and one year of high school physics. (This is a modification of 54, Weather and Climate.) Posey.

GEOLOGY 8. AERIAL PHOTOGRAPHS AND THEIR USES. Three hours credit. Second semester. Interpretation of geographic, topographic, and cultural features as shown on aerial photographs, and preparation of planimetric and contour maps from aerial photographs, with special reference to military applications. Prerequisites, Geology 1, 1E, or 11, Math. 3, and normal stereoscopic vision. Fee, \$4. H. T. U. Smith.

GEOLOGY 9. MAP READING AND INTERPRETATION. Two hours credit. Both semesters. A study of figures shown by different types of maps and interpretations or their application to military objectives. Schoewe.

MATHEMATICS 3a. PLANE AND SPHERICAL TRIGONOMETRY. Three hours credit. The usual work in plane trigonometry and in addition the elements of spherical trigonometry. Prerequisites, one year of plane geometry and either Math. 2a or 2b. (Students who have had a course in plane trigonometry and wish to take spherical trigonometry are advised to enroll in Astronomy 40, Navigation). Storer.

MECHANICAL ENGINEERING 56. TIME AND MOTION STUDY. One and one-half hours of credit. First semester. A study of machine tool and manual operations and the setting of standard times. Fee, \$1.50. Sluss.

MILITARY LAW. Three hours credit. Open to seniors. This is designed to be a general course in military law and will be taught by Professor J. B. Smith of the School of Law.

PHYSICS 154. VACUUM TUBE ELECTRONICS. Three hours credit. Second semester. A combination class and laboratory course designed to acquaint the student with the present-day use of the vacuum tube in a variety of experimental problems. A study of the characteristics of typical vacuum tubes and the use of these tubes as rectifiers, detectors, amplifiers, oscillators, relays, regulators, counting and timing devices, oscillographs, electron microscopes, etc. Prerequisite, a year's work in general physics. Fee, \$2. Stranathan.

All of these courses may be taken for credit by students in the College of Liberal Arts and Sciences, and most of them by students in other schools. If you are in doubt whether a course will count toward your degree, see the dean of the division in which you are enrolled.



TRAINING OF PARTICULAR INTEREST TO WOMEN

Although women students are barred from none of the work discussed in this pamphlet, except that in military

science, most of them will be primarily interested in the types of training especially suitable for women.

RED CROSS COURSES. Four standard Red Cross courses have recently been established at the University and are open to women students, as well as to women of the city, who can qualify for admission. The usefulness of these four courses, which are described below, will be obvious.

NURSE'S AIDES. Three hours credit. Open to women in good health between the ages of 18 and 50 years. Time required: Unit I, 34 hours class room lectures and demonstrations, 2 hours daily, 5 days a week; Unit II, 45 hours hospital demonstration and practice, 3 hours daily, 5 days a week; Unit III (First Aid), 20 hours total, 2 hours daily, 3 times a week; and finally, 150 hours practical experience in a hospital approved by the American College of Surgeons and the American Medical Association.

Obligations of candidates: they must agree to finish the course, give 150 hours of volunteer service each year to maintain their certificate and serve whenever they are called.

A certificate of Red Cross Nurses's Aide is given upon the satisfactory completion of the training.

The teaching is done by accredited graduate nurses; and the direction of the course is in the hands of Dr. Ralph I. Canuteson, director of the University Health Service.

HOME NURSING. One hour credit. Open to women over 17 years of age. Lectures and demonstrations. Minimum of 24 hours for basic course; 6 hours additional recommended. No service obligation. Teaching to be done under the supervision of Dr. Florence Sherbon of the University faculty, with the help of volunteer graduate nurses.

FIRST AID. One hour credit. Open to both men and women over 17 years of age. Lectures and demonstrations. Minimum time: 20 hours in basic course, 10 hours additional recommended. No service obligation. To be taught by physician members of the University staff, under the direction of Dr. Canuteson.

NUTRITION. One or two hours credit, depending on the election of 20 additional hours. Open to both men and women. Lectures and demonstrations. Minimum time: 20 hours for the basic course; 20 hours more may be taken, but by women only, in canteen training.

Units 1 & 2
2 Sem Cr
Home Ec
Unit 3
P.G.

Home Ec.
Phy Ed.

A course approved by the Governor's Committee on Nutrition. No service obligation. To be taught under the direction of Professor Edna Hill, chairman of the Department of Home Economics.

HOME ECONOMICS. In addition to Home Nursing and Nutrition and Nutrition just discussed, given with the help of the staff of the Department of Home Economics, there are several regular courses in the field which may be used to meet a possible need of war times, either in the home or in the community or possibly (certainly with men who serve in the Quartermaster's Corps) in the military camps. The principal courses of this kind are: 3, Elementary Nutrition; 4, Foods I; either 10 or 82, Health of the Family; 12, Child Development; and 76, Standards of Living and Family Finance.

CURRICULUM IN OCCUPATIONAL THERAPY. After the first World War those working with wounded and disabled service men made notable use of occupational therapy as an aid to recovery and vocational rehabilitation. In the belief that the need for this kind of social and health activity may presently be very urgent again, and because the number of institutions offering the training is too few to supply the demand already existing for trained workers, the University has recently organized a curriculum in occupational therapy, which may be elected by qualified women students only.

The course of study will lead to a baccalaureate degree, and will require three years of work in Lawrence, as well as practical training at the University of Kansas Hospital in Kansas City extending over two semesters and one summer session. Among the subjects required are English, psychology, physiology, zoology, chemistry, anatomy, and bacteriology; and along with these will go enrollments in design, bookbinding, metal and leather work, weaving, the

making of jewelry, and other handcrafts work. In Kansas City stress will be placed on hospital and clinical practices necessary in dealing with the sick. Members of the hospital staff will conduct this latter work.

For further details regarding the curriculum, see or write Professor Marjorie Whitney, chairman of the Department of Design, School of Fine Arts.



HOW WELL DO YOU TYPE ?

Both men and women are likely to find the ability to use the typewriter of decided value at present. Typists, even more stenographers and secretaries, are in great demand in industry and for governmental offices; and the military forces never seem to include a sufficient supply of men who can type letters and orders accurately and keep dependable records. Obviously some students would be more useful soldiers serving as company clerks than as carriers of guns. If you feel that you may belong to this class, you might wisely do some work in typing by way of preparation for a more serviceable job ahead.

Work in typing and stenography gives credit only in the Schools of Education and Business, but students in other divisions of the University are allowed to enroll in some of the work upon the payment of the regular fees. For information about typing and shorthand, inquire at the office of either of the deans of the two schools named.



LEARNING TO FLY

Both elementary and advanced work in flight instruction is offered at the University as part of the national

program established by the Civilian Aeronautics Administration. Although this training is not definitely classified as military, skill in flying is unquestionably a very desirable attainment today. For information as to the requirements for enrollment in the C.A.A. courses, inquire at the office of the Dean of the School of Engineering and Architecture.



MILITARY TRAINING AT THE UNIVERSITY

The Federal Government has announced that it plans no increase in the number of R.O.T.C. units maintained at American colleges, but that those units already established will be continued and utilized as a source from which to draw about ten thousand young officers every year. At the University of Kansas there are both a Coast Artillery unit and an Infantry unit. Courses in military science are open to all physically fit young men in the University, and credit in the work is allowed by most schools. To be eligible to receive a commission as a reserve officer in the United States Army, a student must have completed eight semesters of work in military theory, and have attended a summer training camp of at least six weeks' duration for practical experience in the field. The basic course in military science, consisting of the theoretical work of the first two years, may be taken for credit alone, and although not sufficient in amount to lead to a commission, it will be of considerable value for many men.

The first enrollment in military science may be arranged at the beginning of any semester during a student's stay on the campus.

THE DUTY OF KEEPING PHYSICALLY FIT

Both army and navy officials have pointed out that to keep oneself physically fit at this time is a primary duty of all loyal citizens; and a member of the General Staff of the United States Army has suggested that all colleges and universities make work in physical education compulsory. Although the University has not found it possible to take this step as yet, we have maintained, and plan to continue to maintain, facilities abundant enough to enable every student who will use the opportunity to exercise regularly, either by using the gymnasium or by joining in the organized sports directed by members of the Physical Education staff. A varied program of intramural games is carried on throughout the year, in which all students on the campus are invited to take part. To become a member of some sports group one has only to make application at the Intramural Sports office in Robinson Gymnasium.

Enrollment in courses in physical activity, for a limited amount of credit, is allowed in several schools of the University.

Dr. F. C. Allen, chairman of the Department of Physical Education, has arranged to use the course, Individual Gymnastics, as a means of aiding those who wish to exercise strenuously in preparation for military service or other war work.



UNDERSTANDING THE WAR

We hope that students at the University of Kansas will not be satisfied, entirely, with the preparations they are making to assume rôles in the active defense of the nation, but that along with an interest in our military and indus-

trial growth they will show an eagerness to understand the causes of the war and the issues involved. That this eagerness will not only develop but will find reflection in the reading on the campus and the choice of electives, we take for granted. Certain courses are especially to be recommended to those seeking light on the background of our war-torn world.

Consider, for example, how much enlightenment might be gained from the course in economics, War Economy Problems, which deals with the effects of modern war upon both neutral and warring nations and analyzes the economic policies followed under war conditions. In Recent World History, among the subjects stressed, are the reactions to the first World War and the conditions leading to the present one. International Law makes clear the ways in which nations have attempted to bring about orderly and legal modes of dealing one with another and the difficulties standing in the way of harmony. International Relations covers a still wider area, treating of the manifold dealings and attitudes among states which result from their political, economic, and social institutions.

Your especial attention is called, however, to a new course designed to present a summary review of the international situation, The World at War. The course will consist of a series of lectures given by chosen men from the Departments of Economics, History, Political Science, and Sociology. The lectures will carry one hour of credit; they will come at some evening hour, and will be open to the public of this area. The timeliness of the course will be evident from a glance at some of the subjects to be presented in it: "What was the Matter with Versailles?" "The League of Nations," "How the War Came to Europe," "America, the Axis, and Russia," "Japan, China, and the

Social Science
1 Cr

United States," "The Rôle of Latin America in the World Alignment," "The Conduct of the War," "Resources of the Warring Powers," "Problems of American War Economy," and "Requirements for Victory and a Durable Peace."

March 5, 1942.

Chancellor Deane W. Malott,
University of Kansas.

Dear Chancellor Malott:

The replies to our inquiry regarding changes in the physical education program at various neighboring institutions due to the present war emergency are coming in, and I am enclosing copies of these for your information. As others are received, I shall forward copies to you.

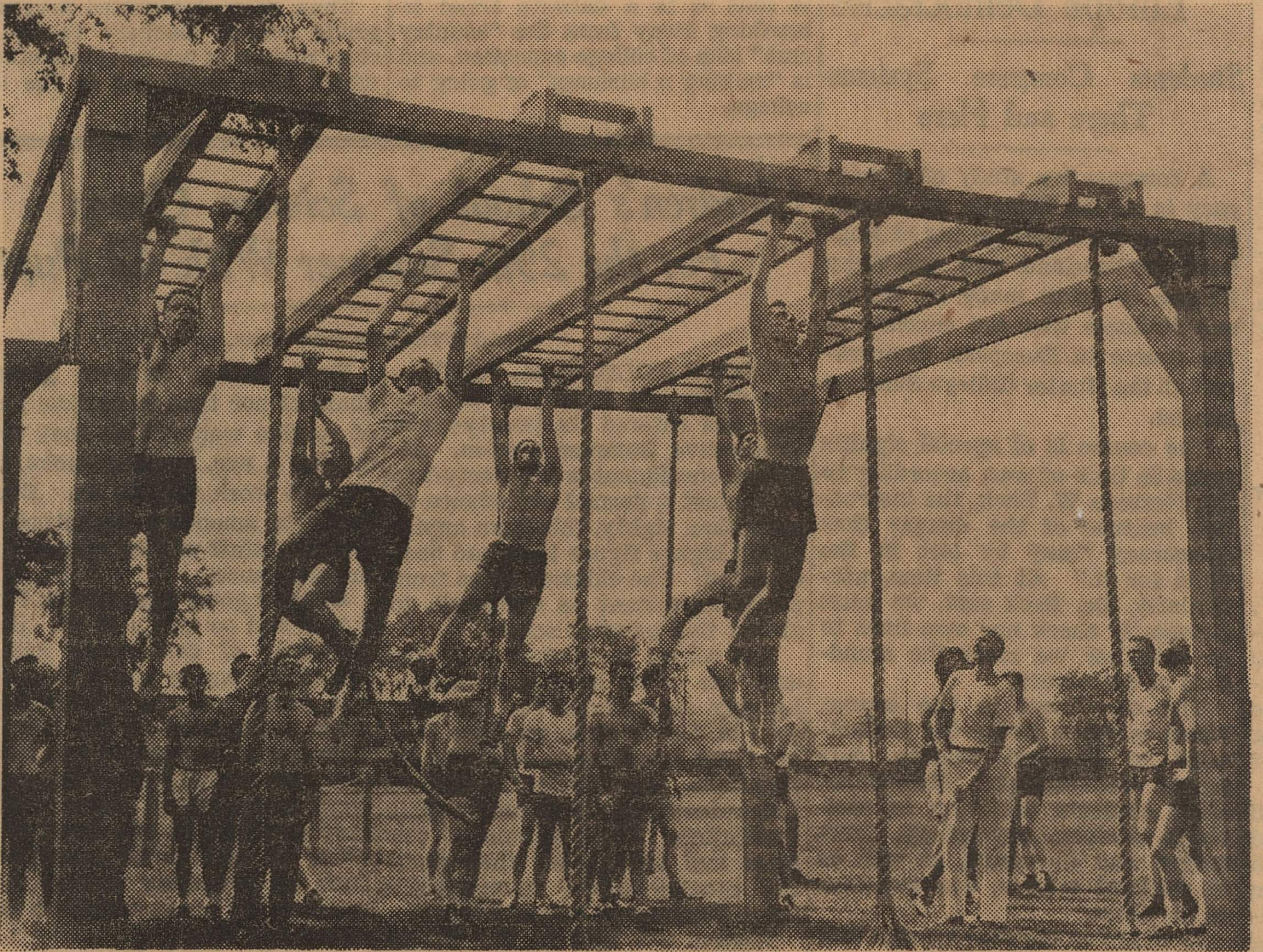
The trend seems to be, in most cases, for compulsory physical education. This was also indicated in the recent poll of students here at the University.

Very sincerely yours,

Director of Physical Education and Recreation,
Varsity Basketball and Baseball Coach.

FCA:AH
Enc.

GETTING INTO FIGHTING CONDITION AT MICHIGAN



Students take part in the newly inaugurated compulsory physical training program.

Special to THE NEW YORK TIMES.

ANN ARBOR, Mich., July 18—Physical training of a type recommended by the Army and Navy is rapidly getting 1,850 University of Michigan students into wartime fighting condition. Today, after four weeks of the first compulsory

hardening program in the university's history, one official predicted that "there won't be enough fat left on their bodies to poke a finger into by the end of Summer."

By order of the Board of Regents the program is required of every student registered in the draft or

in any special enlistment program, unless he is medically exempt. It aims to have the students in top-notch shape when they enter the armed forces and also to improve their chances for advancement. A Fall enrollment of about 5,000 is expected, but facilities are believed adequate.

Commando Training Begun at Princeton

Obstacle Course Being Used By 800 R. O. T. C. Cadets

Special to THE NEW YORK TIMES.

PRINCETON, N. J., July 18—Training in fundamental commando techniques began this week for 800 cadets in the Princeton University Field Artillery unit of the Reserve Officers Training Corps with the opening of a specially designed obstacle course on a wooded hillside near Lake Carnegie.

Planned by Lieutenant Raleigh Hansl Jr., instructor in military tactics, to supplement the university's compulsory athletic program and give to R. O. T. C. students practice in surmounting barriers commonly met in combat, the course was constructed largely by undergraduates.

All cadets are required to negotiate the course's hurdles, sheer walls, tunnels and entanglements once a week. Emphasis at present is being placed on developing the right technique in getting over the obstacles, although eventually students will be timed for speed in covering the half-mile steeplechase.

Several cases of poison ivy have developed among men who rolled, fell or staggered from the limits of the course, and a hand-over-hand climb up a slender twenty-foot rope has made blistered hands the rule.

Physical Education Made Compulsory

Western Reserve Adopts New Program to Meet Military Needs

Special to THE NEW YORK TIMES.

CLEVELAND, Ohio, July 11—A new program of physical education for "self-preservation" is being inaugurated at Western Reserve University under the direction of Robert M. Grueninger, associate Professor of Physical Education, Dr. Winfred G. Leutner, president of the university, announced today, following faculty action. The program is compulsory and is "designed to equip each individual with the necessary requisites for induction into military service."

Professor Grueninger, who has just returned from a leave of absence to develop the program with Army and Navy officials at Fort Meade, pointed out that among other things fully accepted as important to the inductee are: "A total body development."

"Combat efficiency connotes more than condition," Professor Grueninger added. "It implies the ability to endure the utmost physical strain and have enough to perform with efficiency. This concept precludes the idea that a man can do all his training in an eleventh-hour program. It means that our youth should put on muscle and acquire a wide variety of useful skills."

These skills, Professor Grueninger believes, may be listed under two classifications: Skills for combat efficiency and skills for self preservation. These include such important abilities as climbing, throwing, jumping, vaulting, diving, rolling, falling, and individual combat activities.

The program to develop useful skills he said will include the obligatory popular military sports of rope climbing, scaling, acrobatics, track and field.

THE BOOKLIST

IN TWO PARTS
PART TWO

VOL. 39, NO. 10
FEB. 1, 1943

THOMAS K. CURETON

EMMA McCLOY LAYMAN

CLAIR E. TURNER

**PHYSICAL
FITNESS**

**AMERICAN
LIBRARY
ASSOCIATION
CHICAGO**

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{ THIS SUPPLEMENT to The Booklist is made possible through the volunteer effort of the compilers. Its publication and distribution are financed from funds granted by the Carnegie Corporation of New York to the American Library Association for emergency library activities. }

Additional copies of this list may be obtained from the American Library Association, 520 North Michigan Avenue, Chicago, at the following prices: Single copy, 25c; 10 copies, \$1; 25, \$2; 50, \$3; 100, \$5.

Physical Fitness

*A Selected Bibliography**

Prepared by a committee representing the American Physical Education Association and the American Library Association† composed of THOMAS K. CURETON, Ph.D., University of Illinois (Chairman). (Physical Education and Recreation.) CLAIR E. TURNER, D.P.H., Massachusetts Institute of Technology. (Health Education and Nutrition.) EMMA McCLOY LAYMAN, Ph.D. (Mental Hygiene.)

THIS bibliography of books on *Physical Fitness* is selective. It includes books, published through October 1942, dealing with wartime phases of physical fitness, supplemented by a few of the better older books to complete the scope of the work. The dynamic aspects of physical fitness are now emphasized by the Physical Fitness Division of the U.S. Office of Education and Federal Security Agency. A larger number of books are given for *Sports and Conditioning Exercises* to emphasize the positive developmental aspects of fitness. Other phases are not neglected and some better books are listed for:

1. General Hygiene.
2. Nutrition.
3. Standards and Measurements of Fitness.
4. Scientific Analysis.

Hygiene and nutrition courses will need those in the first two categories. Adminis-

trators and teachers are dependent upon measurement and standards to motivate the pupils, to establish status as a basis of guidance, and to evaluate improvement. Most of all they need to know the practical activities. Students in professional classes will need books which deal with the basic scientific principles. All aspects are important for the professional worker.

The activity books were selected on the basis that they represent activities for physical fitness which are being emphasized in the present wartime emergency. The following areas of emphasis were recognized and are represented in the selections:

1. Swimming and Warfare Aquatics.
2. Calisthenics and Gymnastic Conditioning Exercises.
3. Fundamentals of Team Combative Sports.
4. Wrestling, Boxing, and Rough and Tumble Fighting (Judo).

* This list will appear also in the *Research Quarterly of the American Association for Health, Physical Education and Recreation*.

† This project was suggested originally by Carl M. White, of the American Library Association, Director of the University of Illinois Library. It came as a follow-up to Bulletin 23, of the American Council on Education dealing with Higher Education and National Defense which specified that a more definite and consistent program for physical fitness should be developed and required of all students at this time. In taking this matter up with the Department of Physical Education at the University of Illinois the matter was referred to the Research Council and the Governing Board of the American Association for Health, Physical Education and Recreation, which confirmed the above named committee to do the job of selecting the titles. Acknowledgment is made for assistance rendered in compilation by Warren Huffman and Norma Mulvane, in the office of the chairman, University of Illinois.

5. Body Mechanics and Weight Control (Posture, Flexibility, Body Type).
6. Corrective Exercises and Adapted Sports.
7. Recreational Games and Social Activities for Relaxation.

The selections also represent materials

for various age and sex groups:

1. Boys and Girls.
2. Young Men and Cadets.
3. Young Women.
4. Middle Aged Men and Women.

The work is not comprehensive but highly selective for each of the areas mentioned.

I. General Hygienic Aspects of Fitness

AARON, HAROLD. Good health and bad medicine. 1942. (4th printing) 328p. McBride, \$3.

A family medical guide, sponsored by the Consumer's Union of the U.S., Inc., which popularizes health information for the consumer. The book aims to tell the ordinary consumer what to do and what not to do about his own private ills. The book is ever-conscious of the patent medicine abuse.

BAIRD, CHARLES M. Health and longevity. 1941. 157p. Christopher, Boston, \$1.75.

A popular summary of important facts related to health and longevity. Deals with various phases of mental and physical hygiene, but is largely devoted to diet as the key to health. One section is devoted to the psychology of human nature.

BAUER, W. W. Health questions answered. 1942. 368p. Bobbs-Merrill, 69c.

This book is a compilation of questions selected from among more than ten thousand letters asking almost fifteen thousand questions. . . . The answers have been procured from authentic sources, including many consultants of national repute, through *Hygeia*.

BRAGG, PAUL C. Outwitting illness. 1940. 273p. Aetna print. co., Los Angeles, Calif., \$1.

A popular treatise on physical fitness procedures. Covers many practical problems of personal hygiene.

BROWNING, ETHEL. Health and fitness. 1937. 254p. Rich & Cowan, Lond., 3s 6d.

A popular book covering hygienic procedures, applied to the relatively fit and also to the slightly unfit. Material is applied to the school child, the young adult, to middle-aged and old people.

CANNON, WALTER B. Digestion and health. 1936. 160p. Norton, \$2.

The story of digestion and health considering the nature of hunger, thirst and the inter-relationships with bodily vigor and excitement popularly presented.

DEVAN, ARTHUR S. Exercise without exercise. 1941. 86p. Dodd, \$1.25.

The author attacks all the popular exercise dogma of the day. In a simple, amusing way, he unfolds his theory that standing, sitting, walking and breathing are all that is necessary to develop

muscle and that setting up exercises are useless and harmful. It is a far cry from the real work done by physical educators, but one which might appeal to the sedative business man and the urban lady.

DIEHL, HAROLD S. Healthful living. 1935. 345p. McGraw-Hill, \$2.50.

Presents a simple guide on the subject of health for all those who are interested in getting the most out of the body with which they began life, interested in avoiding the snares for the unwary who think too much about their health, and interested in the development for the future of a race of men and women capable of carrying on the American tradition of healthfulness.

EMERSON, WILLIAM R. P. The diagnosis of health. 1932. 272p. Appleton, \$3.

A book which outlines a college physical fitness clinic based largely upon nutritional appraisal and a personal hygiene program. Develops a self-rating health intelligence test and quotient. Includes procedures for a nutrition class.

FISHER, IRVING and EMERSON, HAVEN. How to live. 20th ed. 1938, 422p. Funk & Wagnalls, \$2.50.

A practical handbook of hygiene in simple and nontechnical language.

——— and FISK, EUGENE L. How to live. (19th ed.) 1932. 371p. Life extension institute, New York, \$2.

Rules for healthful living prepared in collaboration with the Hygiene Reference Board of the Life Extension Institute. Presents preventive procedures to be used in the war against lowered physical efficiency and chronic preventable disease. Represents a collaboration of some sixty authorities on health. Covers air, food, poisons, activity, weight regulation, helpful exercises, shoes, alcohol, tobacco, and mental hygiene.

GARRUD, W. H. The complete jujitsuan. 1929. 125p. Methuen, Lond., 5s.

An older book written by a man who was well versed in jujitsu. Contains many excellent illustrations as well as numerous hints on this art.

GERLING, C. J. The complete weight reducer. 1941. 246p. Harvest house, New York, \$3.

A comprehensive book on all of the various methods of weight reduction. Deals with foods and

fads, drugs, special devices and concludes that except for a few glandular cases the solution is diet and exercise. The material is alphabetically arranged.

HAGGARD, HOWARD W. *Man and his body*. 1938. 594p. Harper, \$4.

A broad and mature approach to personal hygiene written by an eminent physiologist for employers, college students or beginning medical school students.

——— and JELLINEK, E. M. *Alcohol explored*. 1942. 297p. tables. diag. Doubleday, \$2.75.

A sincere, unmoralizing approach to the subject of alcohol. Two well-qualified authors discuss the consumption of alcohol and its extent, actions in the body, effect on behavior, resultant diseases both mental and bodily, and inebriety.

HEISER, VICTOR G. *You're the doctor*. 1939. 300p. Norton, \$3.

An analysis of the common elements of life pertaining to physical fitness with special reference to diet and exercise. Written for the public in popular style.

——— *Toughen up America!* 1941. 228p. McGraw-Hill, \$2.

An inspirational treatise on the needs and methods for getting fit. Deals in a popular manner with foods, germs, sleep, exercises, and a variety of health habits. Contains a description of ten body building exercises.

HILL, CHARLES. *Your health in wartime*. 1941. 48p. Univ. of London press, 1s.

Deals with the spread of germs, immunization and inoculation, cleanliness, warm feet and cool heads, sleep and rest, and food.

HISS, JOHN MARTIN. *New feet for old*. 1937. 161p. Doubleday, \$2.

Three people out of five in these United States suffer from some form of foot trouble. Thirty per cent of these wince under the stress of those twin abominations—broken arch and bunion. It is in an effort to relieve some of this needless, nonsensical suffering that this little book is written.

JEFFERY, CLEMENT. *Fit after forty*. 1939. 211p. Muller, Ltd., Lond., 5s.

Deals with middle age problems of fitness, stressing the place of moderate exercise and diet. Has sections on constipation, winter health, change of life, and the mind after forty.

JOSSELYN, DANIEL W. *Live up to yourself*. 1941. 190p. Longmans, \$2.

This is a popular book written to show people how they can make the most of their energy. "I propose this book as an equal training system for the business athlete: a training system which sends him to the office full of enthusiasm, which keeps him vital and pleasant in the face of trying work, and which brings him home with a generous margin of energy for study, active pleasures, happiness, and health in general."

——— *You can stay young*. 1939. 143p. Stokes, \$1.50.

Reviews the theories of youth and summarizes acceptable scientific principles in popular form. Gives dietary program, endorses regulated exercise, and emphasizes sleep and proper use of medical science.

KEITH, ARTHUR. *The engines of the human body*. 1925. 343p. Lippincott, \$5.

A popular book based on a series of lectures given to an audience of boys, girls, men and women. Gives a detailed explanation of the body as if it were composed of various machines found in the industrial world.

KIMBALL, FRANK T. and ALLEN, ABBOTT W. *How to feel better and look it*. 1942. 280p. Duell, Sloan & Pearce, \$2.50.

This book has been written to give you, in easy "how to" terms, the scientific facts you really need to know about yourself, along with certain practical wisdom learned the hard way by men and women who have applied the facts to their own and their pupils' bodies—made visible in candid camera photographs.

McGOVERN, ARTIE. *The secret of keeping fit*. 1941. 242p. Garden City, \$1.

This book is full of specific exercises that will tone the body to peak condition, and teems with physical and psychological tips on the care and feeding of adults. It forever blasts away for one the quackery of health charlatans.

MOORE, H. H. *Keeping in condition*. 1936. 136p. Macmillan, \$1.40.

Covers the essentials involved in training—exercise, fresh air, diet, rest, and the control of the inner conscience. Gives a good summary of the dangers to virility.

PARRAN, THOMAS. *Shadow on the land*. 1937. 309p. American social hygiene association, \$1.

A frank and widely read presentation of the venereal disease problem.

RICE, THURMAN B. *Living*. 1940. 464p. Scott, Foresman, \$2.25.

Covers in popular style modern principles of personal, mental and environmental hygiene.

ROBERTS, HARRY. *Keep fit in war time*. 1940. 90p. Watts, Lond., 1 crown.

It is addressed to those classed as civilians . . . an important contribution to our country's success consists in everyone doing his best to be fit in body and in mind. Some of the more outstanding changes in our environment caused by wartime conditions are discussed, and some suggestions offered as to how we may best adapt ourselves to the altered conditions.

SOKOLOFF, BORIS. *Middle age is what you make it*. 1938. 204p. Greystone press, \$1.75.

A book which summarizes the evidence on middle age health. Develops a positive theory of living the dynamic life. Includes case histories of dozens of important men who have demonstrated unusual vitality and longevity.

SRIGLEY, ROBERT S. When to see your doctor. 1941. 44p. College book company, Columbus, Ohio, 35c.

Written by a doctor of medicine. It includes the most important causes of death, for which doctors can do something, if the patient sees the doctor in time. It gives the symptoms of the diseases and what should be done.

STEIN, JOSEPH M. Your heart. 1941. 240p. Alliance book corp., \$3.50.

A helpful book on the heart for the layman. In this book may be found the way to heart health. It includes simple, sensible rules for healthful living. The scope of the work covers both remedial and preventive phases.

STEINHAUS, ARTHUR H. and GRUNDERMAN, F. M. Tobacco and health; some facts about smoking. 2d ed. 1941. 48p. Association press, 35c.

A summary of facts about smoking culled from various scientific experiments in physiological and commercial research laboratories. Shows the harmful effects of smoking on the physiological mechanisms.

TURNER, CLAIR E. and MCHOSE, ELIZABETH. Effective living. 1941. 432p. Mosby, \$1.90.

Healthful and effective living as an individual, as a member of the family, and as a member of the community. Contains questions and standards for self checking.

WILLIAMS, JESSE FEIRING. Personal hygiene applied. 7th ed. 1941. 627p. Saunders, \$2.50.

A well written and widely used general text in personal hygiene.

II. Nutritional Aspects of Fitness

BOGERT, JEAN. Nutrition and physical fitness. 3d ed. 1939. 566p. Saunders, \$3.

A guide to health building through nutrition.

BORSOOD, L. J. Vitamins. What they are and how they benefit you. 1940. 193p. Viking, \$2.50.

What each of the vitamins does in the prevention of disease and the maintenance of health.

CHANEY, M. S. and AHLBORN, M. Nutrition. Rev. ed. 1939. 436p. Houghton, \$3.

The general nutrition problem.

COOPER, L. F., BARBER, E. M. and MITCHELL, H. S. Nutrition in health and disease. 7th ed. 1939. 712p. Lippincott, \$3.

A consideration of the effects of inadequate diet upon health and a guide to proper eating.

EDDY, W. H. What are the vitamins? 1941. 247p. Reinhold pub. corp., \$2.50.

The nature of the vitamins and the important facts science has accumulated concerning them.

PATTEE, ALIDA FRANCES. Vitamins and miner-

als for everyone; Hazel E. Munsell, technical advisor. 1942. 242p. illus. tables. Putnam, \$2.

A convenient, well-arranged reference book written partly in question and answer form.

ROSE, MARY SWARTZ. Feeding the family. 4th ed. 1940. 421p. Macmillan, \$3.75.

A consideration of individual and family needs and practical ways of meeting them.

———Foundations of nutrition. 3d ed. 1938. 625p. Macmillan, \$3.50.

A widely used and not too technical presentation of the basic facts of nutrition.

SANSUM, W. D. The normal diet. 1930. 134p. Mosby, \$1.

A statement of the fundamental principles of diet for the mutual use of physicians and patients. It is dedicated to an effort to prevent illness, relieve suffering, and prolong life through the proper use of food.

SHERMAN, HENRY C. and LANFORD, CAROLINE S. Essentials of nutrition. 1940. 418p. Macmillan, \$3.50.

A widely used college text.

TAYLOR, DEMETRIA. The nutrition handbook. 1942. 231p. Doubleday, \$2.

A complete guide to the nutritional content of the food we eat.

III. Mental Hygiene Aspects of Fitness

BURNHAM, WILLIAM H. The normal mind: an introduction to mental hygiene and the hygiene of school instruction. 1924. 702p. Appleton, \$3.50.

This book has to do especially with the mental health of normal children. It maintains the thesis that the essential characteristic of the normal mind is an integration of the personality that makes adjustment possible, and it discusses conditions and methods that tend to preserve and develop integration, as well as conditions and practices that tend to produce disintegration.

CLARKE, E. K. Mental hygiene for community nursing. 1942. 262p. Univ. of Minn. press, \$3.50.

Prepared as an incentive and source of information to public health, school, and industrial nurses. Valuable for all health educators.

GRIFFIN, J. D. M., LAYCOCK, S. R. and LINE, W. Mental hygiene; a manual for teachers; foreword by C. M. Hincks. 1940. 291p. diag. American book co., \$1.75.

A comprehensive and practical book, written to foster a better union between mental hygiene and education. The authors display an adequate understanding of teachers' problems, and give many workable suggestions for handling these problems. There is a good chapter on physical handicaps as related to mental hygiene problems.

GRIFFITH, COLEMAN R. *Psychology and athletics: a general survey for athletes and coaches.* 1928. 281p. diag. Scribner's, \$2.

Approach to subject is through the channels of experiment and observation rather than academic theory. What the book does chiefly is to take the phrases of coaches and newspaper reporters—"breaks of the game," "jinx," "on their toes," "overconfidence," and examine their meaning in relation to mental processes and physical training.

JACOBSON, EDMUND. *You can sleep well.* 1941. 288p. Tower book, 49c.

This book tells you in an understandable and interesting way how to relax.

——— *Progressive relaxation.* 1929. 429p. Univ. of Chic. press, \$5.

A physiological and clinical investigation of muscular states and their significance in psychology and medical practice.

JASTROW, JOSEPH. *Keeping mentally fit.* 1930. (5th printing) 315p. Garden City, \$1.

A popular treatise covering problems of keeping happy, the cult of beauty, psychology of sport, and analysis of typical cases. A guide to everyday psychology.

McKINNEY, FRED. *Psychology of personal adjustment; students' introduction to mental hygiene.* 1941. 636p. illus. diag. tables. Wiley, \$2.75.

A book which frankly attacks the problems of the student that are most vital to his personal adjustment and which offers him factual material on these problems. May be used with freshman and sophomore classes, but suitable also for older college students.

NASH, JAY B. *Building morale.* 1942. 154p. A. S. Barnes, \$1.

A nontechnical discussion of morale and methods which may be used in democratic countries to build it. Techniques for building morale are described in terms of physical, mental, and spiritual fitness.

PINTER, RUDOLF, EISENSON, JON, and STANTON, MILDRED. *The psychology of the physically handicapped.* 1941. 391p. diag. tables. Crofts, \$3.

A review of experimental material dealing with the achievement, development, habits, and problems of the physically handicapped child. Contains much material of value to the physical education teacher and health educator.

RIVLIN, HARRY N. *Educating for adjustment; the classroom applications of mental hygiene.* 1936. 419p. Appleton-Century, \$2.25.

This book takes the mental hygiene point of view into the classroom and indicates how the principles of mental hygiene can be applied effectively through the teacher's attitude, school activities, and procedures without involving her in the responsibilities and duties of the trained psychiatrist.

SHAFFER, LAURENCE FREDERIC. *The psychology of adjustment; an objective approach to men-*

tal hygiene. 1936. 599p. diag. Houghton, \$4.50.

A text dealing with both theoretical and practical aspects of mental hygiene. Although intended primarily as a college text, the book contains much of value to teachers.

SHERMAN, MANDEL. *Mental hygiene and education.* 1936. 295p. Longmans, \$2.25.

This book has been planned to aid teachers to discover and understand the emotional and personality problems of their pupils and to institute classroom treatment.

SYMONDS, PERCIVAL M. *Mental hygiene of the school child.* 1936. 321p. Macmillan, \$1.75.

A simple, readable text, designed to interpret the meaning of mental hygiene for teachers, and stressing the positive, preventive aspects of mental hygiene.

THORPE, LOUIS P. *Personality and life; a practical guide to personality improvement.* 1941. 266p. illus. Longmans, \$2.50.

A nontechnical book on mental hygiene written chiefly for the benefit of younger college students who are eager to understand their own natures as well as how to avoid the pitfalls of psychological disorders.

IV. Sports and Conditioning Exercises

ARMBRUSTER, DAVID A. *Competitive swimming and diving.* 1942. 301p. Mosby, \$3.25.

Contains a descriptive analysis of the start, the sprint crawl, the middle distance crawl, the distance crawl, the back crawl, the breast stroke and diving. It is valuable also for two chapters on conditioning and training.

BARTON, FRED B. *It's fun to keep fit: a guide to games and sports.* 1940. 160p. Harper, \$2.

This book presents a wide variety of recreational activities, both organized and unorganized. It is designed for people of all ages, all seasons, all hours, all moods, and all pocketbooks.

BAUMGARTNER, ALBERT J. *Posture training and remedial gymnastics.* 1941. (Mimeographed) 145p. Burgess pub. co., Minneapolis, \$2.25.

This book has been written for teachers of physical education. It is concerned chiefly with the essentials of body posture, considered from the standpoint of the anatomical and static-dynamical superstructure of the body . . . and supplemented by illustrations suitable as bases for the exercises.

BUKH, NIELS. *Fundamental gymnastics* (tr. from the 2d Danish ed. by Emily R. Andrews and Karen Vesterdal). 1938 (4th printing). Dutton, \$2.

The book stresses the development of balance, flexibility, agility, strength, and fundamental coordinations by means of exercises largely without apparatus. Gymnastics are presented as fundamental to sport. Bukh's type of program has won honors the world round and is authoritatively recognized as sound for basic physical conditioning.

CRAMPTON, C. WARD. Boy's book of strength. 1936. 257p. McGraw-Hill, \$2.25.

This book is an effort to give the boys of preparatory school age a program of health management based upon their own experience with life as they are really living it. It seeks to strengthen and support the work of the athletic coach, the gymnasium instructor, the teacher, parent, and physician.

—Start today! Your guide to physical fitness. 1941. 224p. Association press, \$1.75.

The book is meant for the individual, the doctor, the physical educator, and the soldier. Physical fitness is defined, and the importance of the medical examination is shown. Exercises are given as well as a discussion of diet and its relation to physical fitness.

—Training for championship athletics. 1939. 303p. McGraw-Hill, \$2.50.

Written for every man who wants to excel in his chosen sport. It gives specific, scientific advice on the coordination of muscles and the development of good form for track, baseball, basketball, and football. Detailed rules for training are given.

CURETON, THOMAS K. How to teach swimming and diving. 1934. 238p. Association press, \$3.

A book for teachers and supervisors which develops the philosophy, pedagogical principles, health control and management procedures, historical background and modern methods of teaching beginners. Swimming is being unusually emphasized in wartime physical fitness to reduce the large percentage of nonswimmers, estimated as high as 50 per cent of the adult male population.

DUNCAN, RAY O. Six-man football. 1940. 76p. illus. Barnes, \$1.

Written especially for the person in the small high school who has been called upon to coach this new sport. Fundamentals are stressed just as they should be taught.

FAIRBAIRN, WILLIAM E. Get tough! 1942. 120p. Appleton-Century, \$1.35.

How to win in hand-to-hand fighting as taught to the British commandos and the U.S. armed forces.

GALLAGHER, EDWARD CLARK. Wrestling. 1939. 91p. Barnes, \$1.

An illustrated book on wrestling. Contains the best information the author has been able to assemble in the different groups of holds, trips, locks, and counters. Contains a chapter on training.

HARWOOD, ELIZA J. and WAGNER, R. B. How to train your body. 2d ed. 1934. 150p. Baker, Boston, \$1.50.

A book which combines some of the fundamental Swedish gymnastic work with harmonic (poise and expression) training.

HUNT, TERRY. Exercise and keep fit. 1940. 202p. Prentice-Hall, \$1.96.

A practical book covering personal hygiene in the first half and a well illustrated exercise section in

the remaining part. The final part lists celebrities who have been conditioned by the exercises.

KENNEY, H. E. Rough and tumble fighting (Personal defense tactics). 1942. 48p. Stipes pub. co., Champaign, Ill., \$1.

This book gives many good tips on personal defense. Contains 83 illustrations. Suitable for civilians as well as those who will be engaging in hand to hand fighting in the armed forces.

KING, VICTOR H. Be physically fit (U.S. Army—West Point Cadets). 1941. 70p. West Point, 50c.

An authoritative and comprehensive, yet compact booklet on physical training for the individual, containing useful advice on matters of exercise, diet, and health, together with thirty excellent exercises for performance at home.

KIPHUTH, R. J. H. Swimming. 1942. 110p. Barnes, \$1.

Sound advice on training and practice for competitive swimming. Special conditioning exercises are included.

KNUDSEN, K. A. A textbook of gymnastics. 1924. 338p. Lippincott, \$3.

A book which is highly selective of scientifically arranged Danish and Swedish exercises for developing fundamental aspects of motor fitness. Contains considerable teaching material as well as exercises for the principal anatomical parts of the body but also arranged to cover balance, flexibility, agility, strength, power, and endurance exercises as well as a few games.

KUWASHIMA, T. SHOZO, and WELCH, ASHBEL. Judo. 1941. 119p. Prentice-Hall, \$2.50.

This book gives thirty lessons in the modern science of jujitsu. "For this book we have selected only those movements which can be mastered by the average man, woman, or child,—movements which can be accomplished with but a small expenditure of strength, and without previous training or experience."

LANE, JANET. Your carriage madam, a guide to good posture. 1934. 130p. Wiley, \$1.75.

The girl's posture problem presented with humor and illustrated with drawings.

LEFFLER-EGNELL, BARBRO. Slim and supple. 1934. 209p. Appleton-Century, \$2.

Swedish exercises for women young and old. Ten lessons are recommended to women of all ages as a simple, pleasant way of keeping the physical proportions within limits and the body in full vigor. Each section is a complete lesson with practical exercises and illustrations to facilitate the reader.

MASON, B. S. and MITCHELL, E. D. Active games and contests. 1935. 600p. Barnes, \$3.

An encyclopedia of active games and contests classified as contests between individuals, contests between groups, goal and tag games, team games and miscellaneous activities involving personal combat, horseback riding, water, or winter. A reference book carefully indexed.

McCLOW, L. L. and ANDERSON, D. N. Play gymnastics. 1940. 153p. Crofts, \$3.

Contains 850 informal play exercises for forty arrangements of gymnasium apparatus. It is designed for professional use in the school, college, playground, Y.M.C.A., Y.W.C.A., or church gymnasium, and it may be used as a manual for volunteer club leaders.

———Social games for recreation, 1935. 421p. \$2.50.

Compendium of material for the party, the club, the playground, the camp, the picnic, and the home—social recreation. Includes dance and party events, combative council-ring events, outing events, and a great variety of play activities.

MENSENDIECK, BESS M. It's up to you. 1931. 200p. J. J. Little and Ives co., New York, \$3.

This book is written for women. The main purpose of the book is to define correct posture and show how it can be acquired. Contains numerous illustrations showing correct and incorrect posture in everyday movements.

NYE, DOROTHY. Lady be fit! 1942. 91p. Harper, \$2.

A popular book which gives a clear statement of the personal problem of physical fitness which faces many citizens. It includes exercises and advice for energy, efficiency, and lasting health.

———New bodies for old. 1936. 135p. Funk & Wagnalls, \$2.

This book points out why, where, and how to exercise for beauty and health. It is arranged for both the teacher and the average woman who is interested primarily in weight normalizing. It gives many illustrations, practical exercises, and sound advice on diet, post-pregnancy exercise, and posture.

PHELPS, WINTHROP M. and KIPHUTH, ROBERT J. H. The diagnosis and treatment of postural defects. 1932. 180p. Thomas, Springfield, Illinois, \$4.

A book which emphasizes the relation between posture and preventive medicine. Covers practical phases of the body mechanics diagnostic examination and corrective exercises.

RAYCROFT, JOSEPH E. Mass physical training. 1924. 282p. United States Infantry Association, Washington, D. C., \$3.

Outlines the program of athletics and physical training prepared by the Athletic Division of the War Department Commission on Training Camp Activities. Contains disciplinary drill, group games, combatives, efficiency tests, mass athletics, warfare aquatics, bayonet training drills as well as organization and administration material for the military camp setting.

REED, DUDLEY B. Keep fit and like it. 1939. 325p. McGraw-Hill, \$2.50.

Explains briefly the physical and nervous makeup of the human body and its need for exercise. Shows how exercise can be fun instead of a chore. Different forms of exercise are evaluated and

shown how they can be suited to individual requirements.

REILLY, HAROLD J. The secret of better health. 1941. 221p. Carlyle house, \$2.50.

Describes approximately 100 exercises in popular manner. Outlines program of conditioning for defense, largely applicable to women and middle-aged men. Gives exercises for reducing fat, dietetic instructions, posture exercises, and a variety of hygienic suggestions.

SCANNELL, JOHN A. A Manual of heavy apparatus and tumbling stunts. 1940. 46p. Burgess pub. co., Minneapolis, \$1.50.

In the activities selected for you in this handbook you have those which have proved their values in use on the secondary and college level. No attempt is made to cover the wide field of stunts which may be used on lower levels. Neither are there listed stunts of the type which will challenge the competitive gymnast. Reference to satisfactory sources for this material, will, however, be found in the bibliography.

STAFFORD, GEORGE T. Sports for the handicapped. 1939. 302p. Prentice-Hall, \$2.75.

Outlines for physical educators, nurses, physicians, parents, and the handicapped a program of sports. Shows the need for adapted sports and the effect of physical handicaps on the personality. Classifies sports according to various physical handicaps.

———and DUNCAN, RAY O. Physical conditioning. 1942. A. S. Barnes, \$1.

This book touches on the needs of the average man and woman but is prepared mainly for use by coaches and athletes. The authors list and illustrate a series of exercises for conditioning in various sports including baseball, basketball, boxing, gymnastics, swimming, track, weight lifting, and wrestling.

———DECOOK, HARRY B. and PICARD, JOSEPH L. Individual exercises. 1937. 111p. A. S. Barnes, \$1.

The doctor, the physiotherapist, the physical educator, and the teacher will find this book helpful in selecting exercises for the large number of individuals who, because of physical defects, deformities, etc., should not be permitted (or are not able) to take the regular physical education work.

STALEY, S. C. Calisthenics. 1926. 338p. A. S. Barnes, New York, \$3.

The book is the outstanding one on calisthenics and reflects the author's experience as supervisor of such work in World War I and as teacher of it at the University of Illinois. Contains nomenclature, teaching methods, lesson plans, and model lessons.

———Conditioning gymnastics. 1927. 50p. \$1.

Contains 134 exercises that are especially fitting in our present emphasis upon conditioning work. Exercises were originally used in the army. Excellent for early season conditioning work of athletes.

———Games, contests, and relays. 1924. 354p. A. S. Barnes, \$3.

Author's aim was to collect into one volume all of

the more important games, contests, and relays. Ignores the theory and describes activities classified for the lower grades, upper grades, junior high school, senior high school, college, and older adults.

STANLEY, S. C. and STAFFORD, G. T. *Sports curriculum*. 1940. 127p. Stipes pub. co., Champaign, Ill., 60c.

Contains brief specifications for all of the service courses in physical education at the University of Illinois, and a selected bibliography for each.

STONE, HENRY A. *Wrestling, intercollegiate and Olympic*. 1939. 323p. illus. Prentice-Hall, \$3.

Gives the exact method of applying every standard hold, with more than 200 action photographs. Besides describing the science of holds, it teaches specific blocks and counters adapted to individual physiques, and gives advice on training, conditioning, and treatment and prevention of injuries.

TUNIS, JOHN R. *Sport for the fun of it*. 1940. 340p. A. S. Barnes, \$2.50.

A popular handbook of information on twenty sports that everyone can play for their own enjoyment. Each sport is presented under Origin and Background, Equipment, Playing Area, Official Rules, and Bibliography.

UNITED STATES NAVAL ACADEMY, *Physical training manual*. 1942. 312p. United States Naval Institute, Annapolis, Md., \$2.

Supersedes previous Naval Academy manuals of 1906, 1920, and the revisions of 1922, 1927, 1933, and 1936. It outlines the physical training requirements of the Naval Academy. As arranged it presents the fundamentals of practically all sports practiced by the Academy.

UNITED STATES NAVY TRAINING DIVISION. *Physical fitness program for high schools and colleges*. 1942. 57p. Bureau of Aeronautics, Navy Department, Washington, D.C., (free).

Outlines a program in physical fitness for educational institutions modeled somewhat after the Navy pre-flight school courses. Rugged health, endurance, strength, and agility are the goals. Outlines are included for defensive activities, military track and obstacle course, gymnastics and tumbling, swimming and life saving, and a few combative games.

UNITED STATES WAR DEPARTMENT, *Basic field manual—Physical training*. FM 21-20. 1941. 211p. Govt. print. off., Washington, D.C., 30c.

Official specifications for the conduct of physical training in the United States Army. The book includes commands, formations, marching, disciplinary exercises, setting up exercises, combative exercises, various forms of mass athletics and group games, swimming and life saving, and rifle exercises.

———*Sports and games*. (TM 21-220). 1942. 197p. Govt. print. off., Washington, D.C., 50c.

Basic rules and fundamentals of various sports are given. Covers archery, badminton, baseball, basketball, bowling, boxing, handball, horseshoes, soccer,

softball, speedball, tennis, table tennis, touch football, track and field, volleyball and wrestling.

VINCE, JOSEPH. *Fundamentals of fencing*. 1940. 62p. illus. A. S. Barnes, \$1.

Written in a concise manner. Covers the fundamentals for the three weapons: the foil, the epee, and the saber.

V. Standards and Measurements of Motor Fitness

BOVARD, JOHN F. and COZENS, F. W. *Tests and measurements in physical education*. 2d ed. rev. 1938. 427p. Saunders, \$3.

A comprehensive book on tests and measurements in physical education. The text is arranged in three major parts: the status of measurement, the tools of measurement, and the theory and practice of test administration. Various physical fitness tests are described in the book.

BRACE, D. K. *Measuring motor ability*. 1927. 138p. A. S. Barnes, \$2.

A motor ability test of 20 items arranged for scoring on the pass or fail basis and standardized largely on elementary and high school boys and girls. Includes the analytical work involved in developing the test.

COZENS, FREDERICK W. *Achievement scales in physical education activities for college men*. 1936. 118p. Lea & Febiger, \$2.50.

A comprehensive collection of performance scales in dynamic activities of fitness standardized on college freshmen and sophomore men. Covers 35 events with administrative suggestions for giving the events and using the scales.

———TRIEB, M. H. and NEILSON, N. P. *Physical education achievement scales for boys in secondary schools*. 1936. 155p. A. S. Barnes, \$1.60.

Scales for the measurement of motor fitness based on over 56,000 records from the junior and senior high schools of Los Angeles.

CURETON, THOMAS K. *A guide to tests and measurements in health and physical education*. 1936. 78p. School of Physical Education, Champaign, Ill. (mimeographed, printed cover, bound) \$1.

A guide to the literature of tests and measurements in health and physical education. Contains indexes, abstracts, bibliographies, publishers, periodicals, best books, agencies, classification headings for searching, and selected references under 53 subheads.

———*Physical fitness workbook*. 1942. 180p. Stipes pub. co., Champaign, Ill., \$1.75.

A practical workbook for work in basic physical fitness emphasizing aspects of physique, organic efficiency and fundamental motor capacity. Outlines a testing and exercise program for balance, flexibility, agility, strength, power, and endurance. Gives results of University of Illinois program with men.

—Standards for testing beginning swimming. 1939. 185p. Association press, \$2.25.

Presents an analysis of beginning swimming resulting in standards and progressive tests. Contains the evidence of validity, reliability, and relative difficulty of the items and of the six graduated test batteries. A master list of 86 beginner's skills is appended together with bibliography and test forms.

DEAVER, GEORGE G. Fundamentals of physical examination. 1939. 299p. Saunders, \$2.75.

Covers the standard tests used by physical educators to appraise physical status. Includes both administrative and technical material related to physical examinations.

GLASSOW, RUTH B. and BROER, M. R. Measuring achievement in physical education. 1938. 344p. Saunders, \$2.75.

A comprehensive textbook to represent the women's work in physical education measurement. The book covers guides to the selection of tests, available tests and standards of skill, and statistical interpretation.

JOKL, E., CLUVER, E. H., GOEDVOLK, C. and DEJONGH, T. W. Training and efficiency: An experiment in physical and economic rehabilitation. 1941. 188p. Alex White & co. (PTY) L.T.D., Johannesburg, \$1.50.

A report of an experiment carried on by the South African Institute for Medical Research. Makes a significant contribution to the field of physical fitness. Shows the outstanding results that can be obtained in physical and economic rehabilitation through a compulsory physical training program.

MCCLOY, CHARLES H. Tests and measurements in health and physical education. 1939. 392p. Crofts, \$3.

Covers phases of the rapidly developing field of tests and measurements in Health and Physical Education. Tests and administrative procedures are described in practical fashion. Includes tests of body size and maturity, power, strength, agility, track and field, general motor capacity and motor ability, endurance, as well as special types of cardiovascular, body mechanics, and personality tests. A small section is devoted to statistics and test construction procedures.

—and CARPENTER, AILEEN. Laboratory manual for tests and measurements in health and physical education. 1941. 140p. Crofts, \$1.25.

Contains material which supplements McCloy's text. Includes tests of strength, classification, power, motor educability, agility, general motor capacity, track and field, endurance, balance, sensory rhythm and timing, cardiovascular and body mechanics tests. Also, includes tests of achievement for various sports.

NASH, JAY B. Nature and scope of examinations. 1931. 307p. A. S. Barnes, \$2.

A book devoted to the type of physical examinations that can be made by the physical educator so as to establish the basis for educational guidance.

The approach includes the neuromuscular, interpretative cortical and emotional-impulsive with experts reporting on each phase in symposium fashion.

VI. Scientific Analysis of Physical Fitness

BROTMAN, ROBERT H. Let's look at your teeth. 1940. 277p. Field, \$2.50.

A comprehensive book on teeth as related to physical fitness. Shows results of neglect, analyzes causes of decay, covers principal problems of oral hygiene. A timely contribution which gives an authentic picture of the principal cause of rejections in the draft.

CURETON, THOMAS K. (*Chmn.*), KARPOVICH, P. V., AFFLECK, G. B., LARSON, L. A., et. al. Physical fitness: Springfield College studies. Supplement to Research Quarterly. May 1941. 192p. American Association for Health, Physical Education, and Recreation, \$1.

Brings together and interprets significant selections from the extensive literature of the field of physical fitness as well as research findings of the college. Indicates significant implications and gives aid in application of data to actual situations.

DAWSON, PERCY M. The physiology of physical education. 1935. 938p. Williams & Wilkins, \$8.

A scientific book giving the physiological basis of physical education. It is comprehensive and addressed to four greatly overlapping groups of persons. It is designed for students above average in intellectual energy and curiosity, for physical educators, for persons interested in research, and for people discontented with the limitations of the ordinary textbook.

GOLDTHWAIT, JOEL E., BROWN, LLOYD T., SWAIM, LORING T. and KUHNS, JOHN G. Body mechanics in health and disease. 3d. ed. 1941. 316p. Lippincott, \$5.

The book deals with the diagnosis and treatment of chronic disease, most of all prevention. It is a summary of the problems of chronic medicine. Treats body types, body mechanics, types of chronic diseases. Includes a bibliography of 376 references.

GRIFFIN, F. W. W. The scientific basis of physical education. 1937. 203p. Oxford univ. press, \$2.75.

A summary of the medical and scientific knowledge available on the physiological and psychological principles underlying physical education. It is based upon the 1935 report of the British Medical Association on physical education. Contains 254 selected references.

HICKMAN, CLEVELAND P. Physiological hygiene. Rev. ed. 1942. 482p. Prentice-Hall, \$3.25.

Aims to ground the student in anatomy and physiology as well as to incorporate the central ideas in personal hygiene. The work is arranged as a text for college students.

MCCURDY, J. H. and LARSON, L. A. The physi-

ology of exercise. 1939. 349p. Lea & Febiger, \$3.75.

A more technical appraisal of physical efficiency. Includes sections on the general effects of exercise upon bodily functions, effects of special exercises, and methods of appraisal through cardiovascular tests. Summarizes the physiology of training. Used as a textbook for professional students of physical education.

McKENZIE, R. TAIT. Exercise in education and medicine. 3d. ed. 1924. 601p. Saunders, \$5.

One of the classic works on exercise in relation to physical fitness. Includes review of various systems of physical training: German, Swedish, French, English, and American. Half of work devoted to treatment of medical deficiencies and diseases by means of exercise. Outlines programs of exercises and games for schools, colleges, and recreation centers.

MORTON, DUDLEY J. The human foot. 1942. 244p. Columbia univ. press, \$3.

This book gives the latest and most exact information relative to the human foot. The evolutionary development, the physiology, and the functional disorders and their treatment are given.

———Oh doctor! My feet! 1939. 116p. Appleton-Century, \$1.75.

This book presents new and important information about foot trouble. Material based on actual personalities, experiences, and conversations. X-ray illustrations are given.

NASH, JAY B. Physiological health. 1933. 308p. A. S. Barnes, \$2.

Shows the possible contributions of a well-organized physical education curriculum to health. Outlines the part physical education has in building

organic power, removing drains and strains, and conditioning to proper health habits.

RATHBONE, JOSEPHINE L. Corrective physical education. 1934. 305p. Saunders, \$2.50.

This book presents, for students of physical education and physical therapy, the essential facts of human anatomy and physiology as they pertain to the subject of corrective exercise.

SCHMIDT, F. A. and MILES, E. H. The training of the body. 1901. 522p. Dutton, \$2.50.

A classical work analyzing the relation of games, athletics, gymnastics, and other forms of exercise for health, growth, and development. This is one of the better books explaining the scientific relations between exercises, games, and sports and health.

SCHNEIDER, EDWARD C. Physiology of muscular activity. 1941. 428p. Saunders, \$3.

The book summarizes the principles of the physiology of physical activity. In addition to the basic anatomy and physiology presented, an analysis is given of fatigue, staleness, and the effects of heavy exercise upon the body. One chapter discusses physical fitness tests.

SHELDON, W. H., STEVENS, S. S. and TUCKER, W. B. The varieties of human physique. 1940. 347p. Harper, \$4.50.

The criteria and the procedure for somatotyping, provide a practicable, objective method for segregating and classifying the varieties of human physique. The somatotype rating has been developed from studies of three primary aspects of bodily constitution, skeleton, muscle, and adipose. This is an excellent book for physical educators who are interested in a more complete study of their subjects and for guidance purposes.

THE AMERICAN LIBRARY ASSOCIATION

The American Library Association, established in 1876, is an organization of libraries, librarians, library trustees and others interested in the responsibilities of libraries in the educational, social and cultural needs of society. It is affiliated with more than fifty other library associations in this country and abroad. It works closely with many organizations concerned with education, recreation, research and public service. Its activities are carried on by a headquarters staff, voluntary boards and committees, and by divisions, sections, and round tables, all interested in various aspects or types of library service. Its program includes information and advisory services, personnel service, field work, annual and midwinter conferences, and the publication—not for profit—of numerous professional books, pamphlets and periodicals.

INTRAMURAL SPORTSOBSTACLE RACES"Missouri Toughener"CHAMPIONSHIPSINSTRUCTIONS:

1. Medals to School Champions (Individual), Gold, Silver and Bronze.
2. Ribbons to School Championship team-8 man relay, limited to men living in same house.
3. Fraternity points based on house efficiency. Efficiency equals total time divided by quota (50%) of actives and pledges.
4. Meet will be held:

May 2, 10-12 A.M.
May 5, 4-6 P.M.
May 7, 4-6 P.M.
May 9, 10-12 A.M.
Team Relays: May 9, 2-4 P.M.
5. Every man will be allowed two trials.
6. Teams will be assigned date and hour to report.
7. Managers sign entry chart in Intramural Office.
8. Suggest wearing old clothes.

9. Fraternity Quotas*

Alpha Gamma Rho--28	FarmHouse----22	Pi Kappa Alpha--16
Alpha Gamma Sig--28	Kappa Alpha--28	Sigma Alpha E.--28
Alpha Sigma Phi--15	Kappa Sigma--28	Sigma Alpha Mu--20
Alpha Tau Omega--22	Lambda Chi----18	Sigma Chi-----28
Beta Theta Pi----23	Phi Delta T.--38	Sigma Nu-----32
Delta Tau Delta--16	Phi Kappa Psi16	Sigma Phi Ep----15
Delta Upsilon----15	Phi Gamma D.--24	Zeta Beta Tau---28
Phi Sigma Delta--20		

* Report corrections to Intramural Office.

DIRECTIONS

The first barrier may be jumped or hand vaulted.
 The second obstacle, which is the water hazard, must be leaped.
 The third obstacle is one under which the individual may dive or roll.
 The fourth barrier, and there are three in this group, may be hand vaulted or jumped or hurdled.
 The wall is the next obstacle and any method may be used in getting over it.
 The last barrier is the balance beam. The competitor must walk the length of the beam without falling off. If the competitor falls off he must go back to the start of the balance beam and attempt again to walk the entire length of the beam without falling off.
 After walking the length of the balance beam the competitor is to run around the single turning post and return to the finish line which is immediately south of the first barrier. The start and the finish lines are designated by line markings.

UNIVERSITY OF MISSOURI
COLUMBIA

July 6, 1942

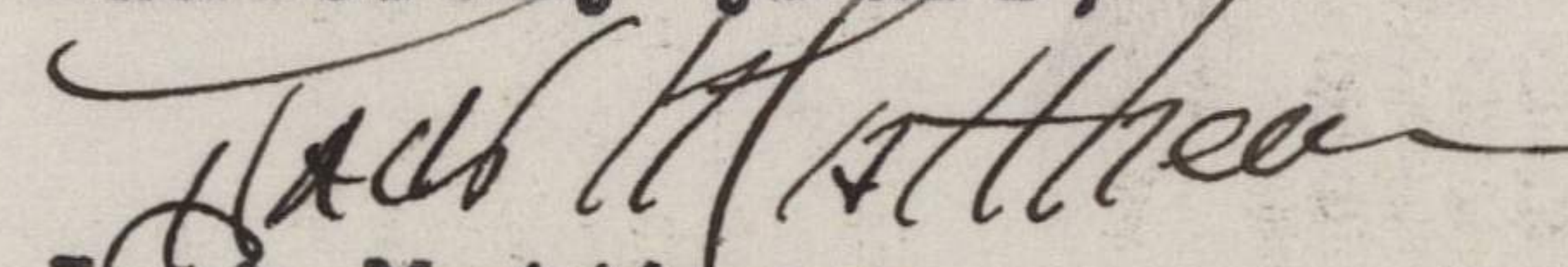
DEPARTMENT OF PHYSICAL EDUCATION

Dr. Forrest C. Allen
Director of Physical Education - Varsity Basketball Coach
University of Kansas
Lawrence, Kansas

Dear Dr. Allen:

Although the information I am enclosing is not complete, I think it will answer in part the questions raised in your letter. We have run our students in our required courses over the Toughener Course several times, and in addition, many have competed in the intramural contests which used the Toughener Course. Here are the figures for one instructor's classes, a total of sixty-seven cases. In the initial test nine of sixty-seven, or 13.4 per cent, failed to scale the wall. All of these men, as a result of instruction, were able at a later time to scale the wall. The best time for any of the fifty-eight of the sixty-seven who did complete the course was 30.8 seconds. The slowest for any of the fifty-eight was 72 seconds, and the mean time for the course was 39.3 seconds. Later in the year near the end of the semester we found that the mean time for all of our students in the required course program was 35 seconds. In Mr. Stankowski's intramural contests over the Toughener in which approximately 400 men participated, the best time was 26.2 seconds. Only three men in the University have been able to run under 27 seconds, which was the record established by Mr. Faurot the first week the Toughener was in operation. In the intramural competition one team representing the Beta Theta Pi Fraternity had six men who ran between 28 seconds and 28.2. This to me was a remarkable performance. However, this group of six was selected from a membership of approximately seventy. I suspect that the information given above is about what you want. If it is not and if it is insufficient, please write me and I will be glad to give any further information you may desire.

Sincerely yours,



Jack Matthews
Director of Required Courses

JM/b

Enc.

C O P Y

UNIVERSITY OF MISSOURI
COLUMBIA

Department of Physical Education

July 6, 1942.

Dr. Forrest C. Allen,
Director of Physical Education,
University of Kansas,
Lawrence, Kansas.

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I suspect that the information given above is about what you want. If it is not and if it is insufficient, please write me and I will be glad to give any further information you may desire.

Sincerely yours,

(Signed) JACK MATTHEWS

Director of Required Courses.

July 8, 1942.

Mr. Jack Matthews,
Director of Required Courses,
Department of Physical Education
University of Missouri,
Columbia, Mo.

Dear Jack:

Thank you very much for your very prompt
letter. It gives me exactly what I desire.

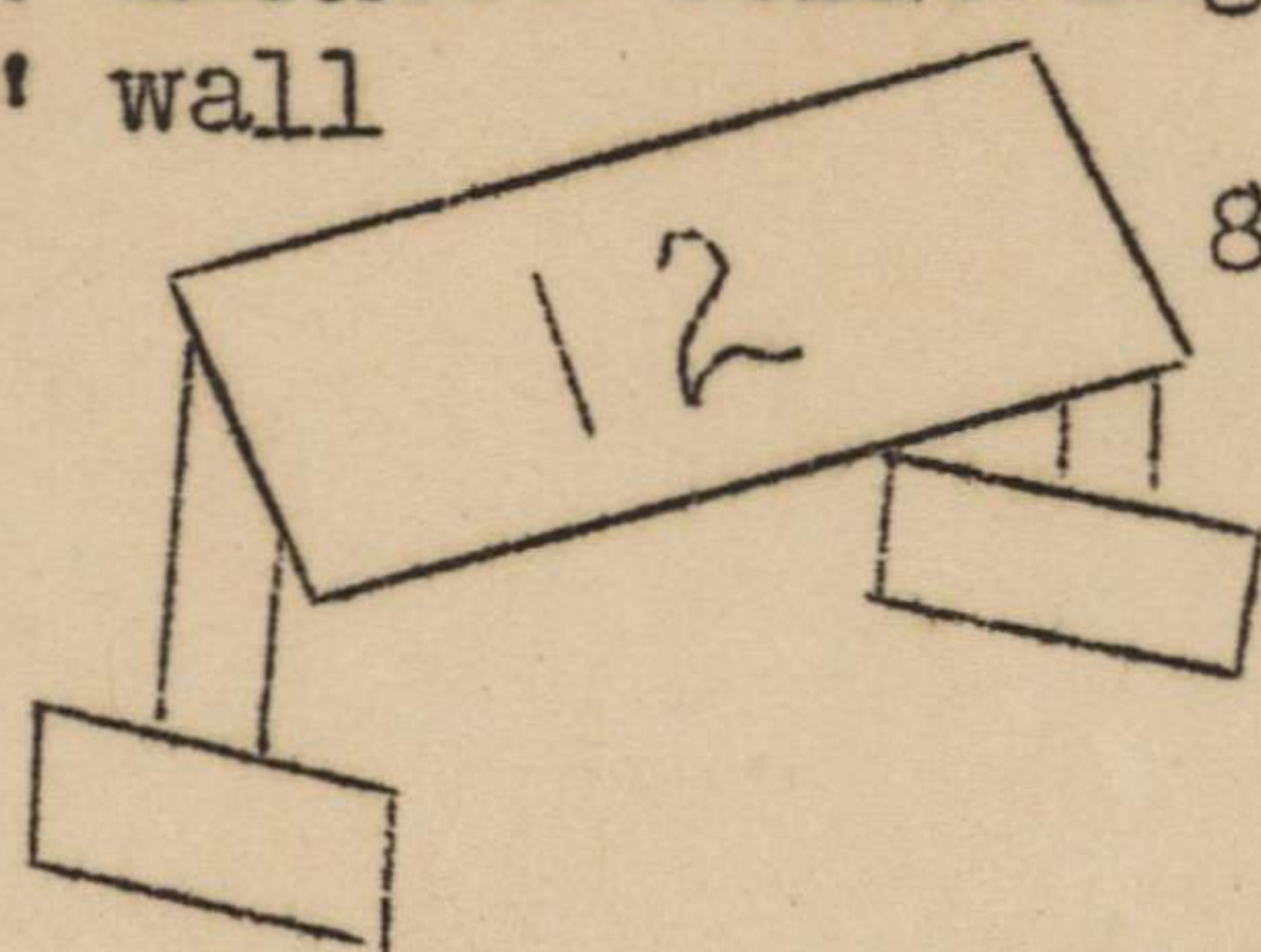
With appreciation, I am

Sincerely yours,

FCA:AH

Director of Physical Education,
Varsity Basketball Coach.

Typical hurdle used
as lane markers following
the 16' wall
and
hedge
hop.



8" or 10" high

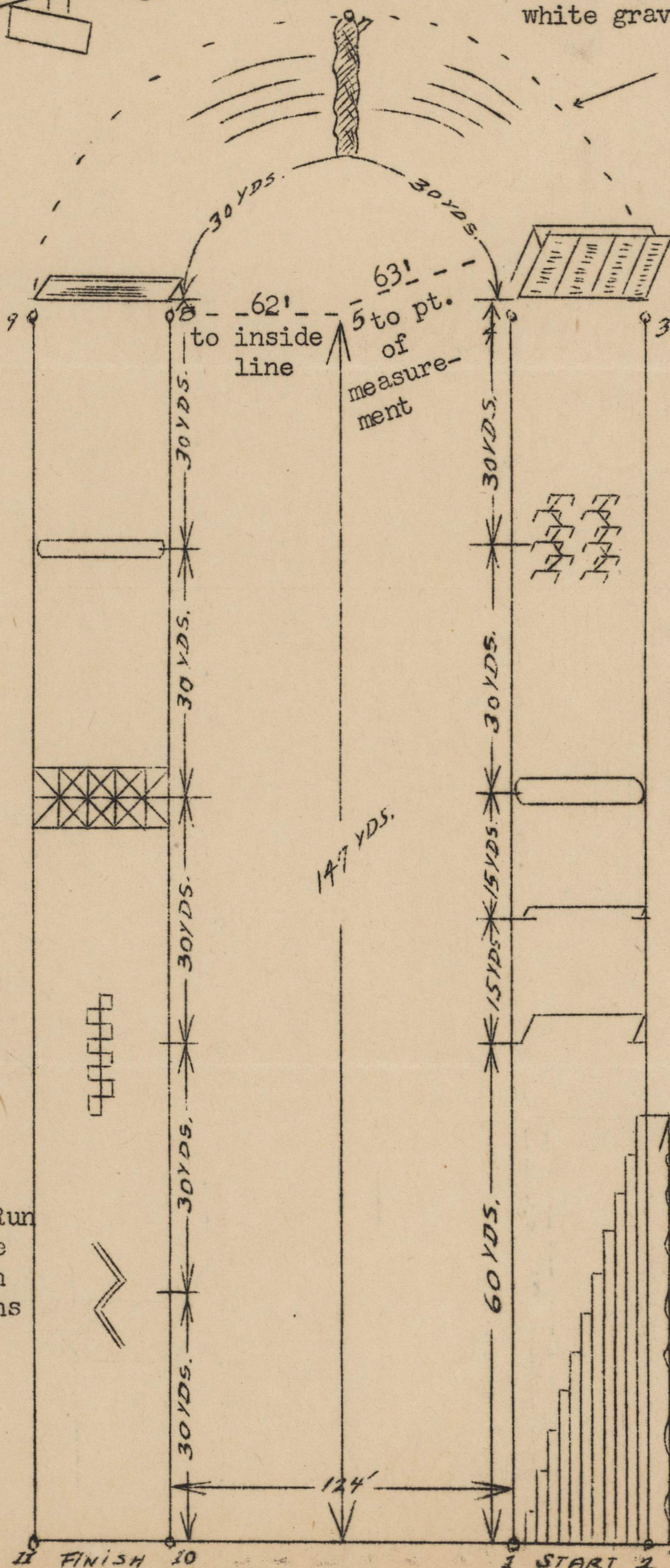
live hedge privet

Hedge Hop
24" high
36" wide

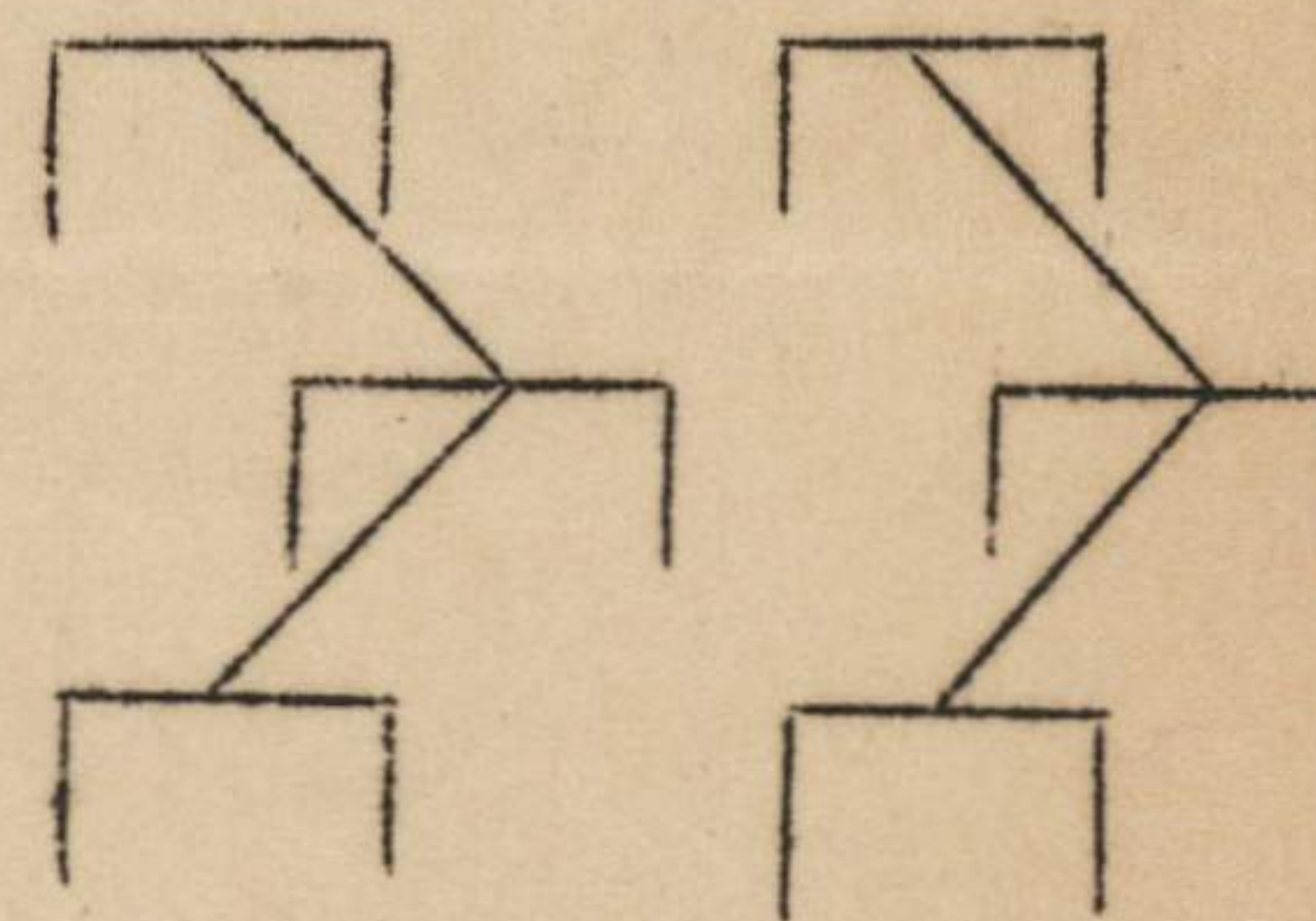
Small Ditches. To make lanes
permanent will keep lime in
lanes but not necessary if
white gravel is used.

Curve 66 yds.

Wall Scale
7' high



Wall 16' high
Ropes and ladders



6 zig zig hurdles
24" high, 24" wide
and 6' apart

Broad Jump
6' wide

Broad Jump 8'
(Slope far edge
to bottom)

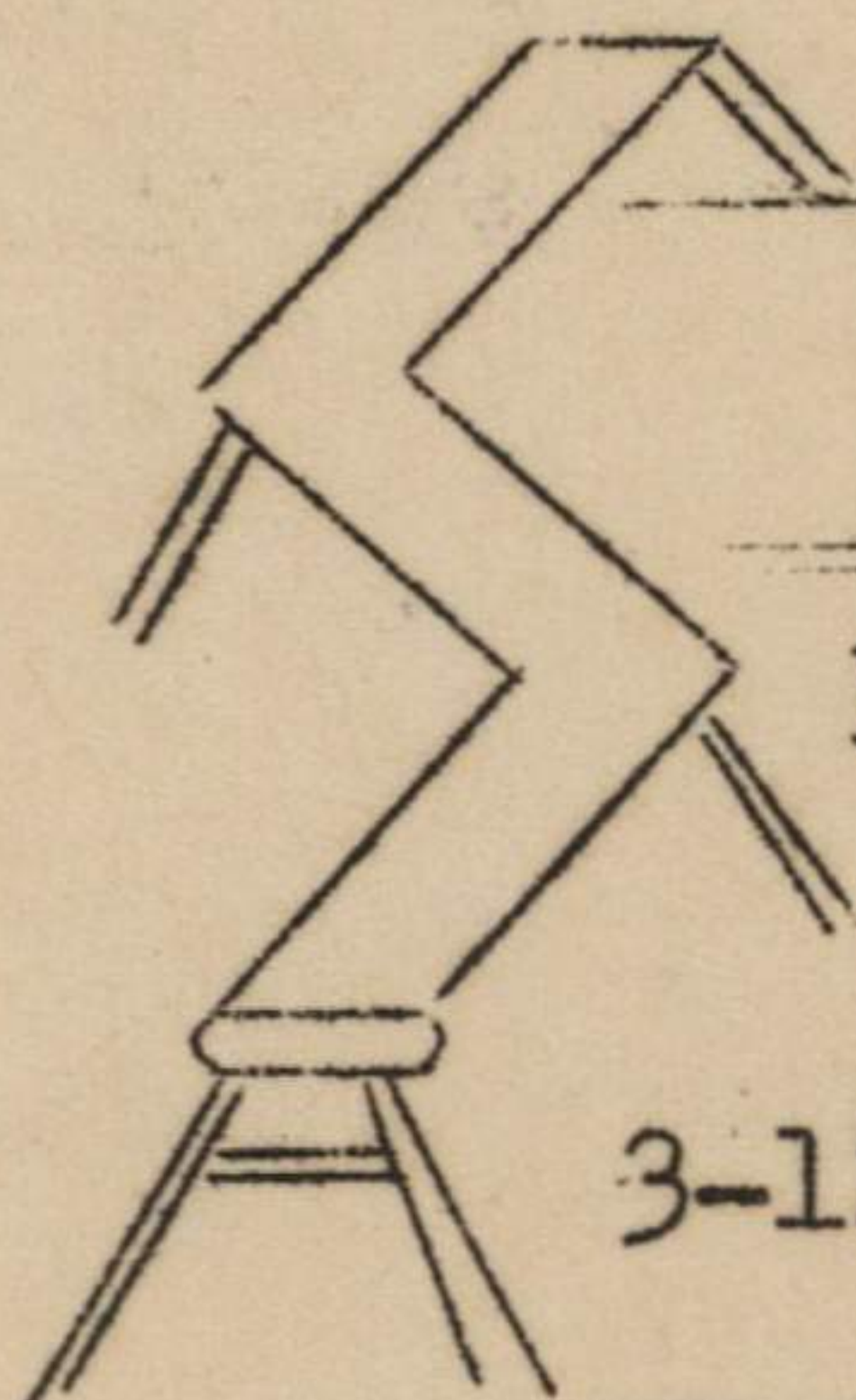
Wire Tunnel
20' long
40" high

Hurdle 30" high

8 Boxes
24" x 24"
8" high

Knee
Lift

Fence Vault
5' high



Balance Run
1' wide
2' high
3-12' sections

2" x 6"

Stagger: Lane 2
over Lane 1, 12'
6.8"
Lanes 3,4,5,6,7,8,
9,10,11,12--over
next lane to inside
12'6.8".

All lanes measured
12" from lane line.

Numbers 1-11 indicates
stakes to be set.

12-4' lanes