L E A R N I N G T O S W I M

W I T H

T H E U. S. N A V Y

By the Physical Training Section, Training Division, Bureau of Naval Personnel.
Especially Prepared for physical trainers and drill officers.

A3 1888

SWIMMING TO KEEP AFLOAT

Swimming is a necessary part of the bluejacket's store of knowledge. He lives a great deal of his time in and around the water. He must learn to master the water and all its phases. In many places swimming will be his best means of recreation and, oftentimes, the only means of saving his life. Every recruit must learn to swim. Eventually, he may find it necessary to be able to swim or keep afloat for a long period of time until rescued. The Navy is interested in teaching every bluejacket to swim to keep afloat.

Teaching the recruit to swim involves two factors--water and the human body. The recruit will find that he must make many physical adjustments when he enters the water. The water pressure will affect a change in his circulation. The temperature of the water will be a strange sensation. Temperature and water pressure plus the fact that the beginner is in a new medium may cause what is commonly called the "fear complex." This fear is closely related to the body changes which the recruit undergoes in adjusting to the water. It is physical as well as psychological. As he learns to adjust himself by working in the water, he can control much of this fear. It will be necessary for him to learn to breathe differently in the water than he has on land. When he has mastered the problem of breathing, and has adjusted himself to the water, his fear will be largely overcome.

The beginner must learn to relax and not to struggle in the water. Nature means to have man unsinkable and if nature is given the slightest cooperation, man won't sink. The beginner who fails to relax in the water and tenses his muscles will react in the same way as a proverbial stone. Floating depends on relaxation. Therefore, the accent

on relaxation. Relax to save your life!

For many years floating was fallaciously considered to be an inborn skill. The laws of physics explain how floating occurs and how it can be learned. Water exerts an upward pressure, "a buoyant force" upon objects immersed in it. A swimmer will float if the buoyant force of the water is greater than the force his body exerts upon the water. A swimmer in the water exerts a force downward. Acting against this force is the upward force of the water. Actual buoyancy is equal to the difference between the upward and downward forces. Physicists have computed that the buoyant force upon a submerged body is exactly equal to the weight of the liquid displaced by that body. This buoyant force acts through a point (center of buoyancy) vertically upward, and counter-balances, in whole or in part, the weight of the body. (Fig. 1)

Most individuals can be taught to float. A person, to float, must displace a weight of water equal to or greater than his own weight. For example, a recruit weighing 160 pounds equals in weight 2.56 cubic feet of water. In order for this recruit to float, he must displace a weight of water greater than 160 pounds. If he should exhale all the air in his lungs, he would displace about 2.51 cubic feet. This means that the weight of the water displaced is now 156.875 pounds. However, his actual body weight is 160. The force of his body weight downward is greater than the buoyant force of the water. Therefore, he will not float. On the other hand, by inflating his lungs, he may increase his cubic displacement in water. He should then float, since he is buoyed up by a force greater than the force exerted by his body weight. It has been computed that about 3 to 5 pounds of the recruit's body will float

above the surface while his lungs are fully inflated. (Fig. 2)

Floating and swimming also depend upon proper breathing. Due to the energy output while in the water, more oxygen is needed by the recruit during water activity than when he is out of the water. During relative inactivity the volume of air which is exhaled or inhaled has been approximated at 25 to 30 cubic inches. Obviously, when there is an increase of physical exertion and, a greater energy output, the exchange of oxygen in the lungs and blood stream must be carried on at a faster rate and in a great quantity. For this reason, and also the fact that water often blocks the nasal passage, mouth breathing is prescribed for swimmers. Through mouth breathing while swimming the oxygen intake can be increased from 25 to 30 cubic inches to about 200 to 225 cubic inches. This will be sufficient to take care of the increased physical activity, and to help maintain buoyancy. (Fig. 3)

The air is inhaled through the mouth and retained for about two seconds. (Fig. 5) After the complete inhalation a full expiration should follow. (Fig. 6) Inertia will maintain body buoyancy during the time between this expiration and the next inhalation. Inertia is a physical law that states that a tendency of a body at rest will be to remain at rest, or if in motion, to remain in motion. Therefore, if the recruit is floating (at rest) and exhales, some lapse of time and considerable force is required to start him sinking. However, by quickly inhaling, he will eliminate the time element and, remain above the surface because of the fresh supply of oxygen.

Besides maintaining buoyancy this oxygen intake is necessary to help overcome the fatigue products which accumulate in the body. If

the oxygen intake is sufficient to meet the output of energy, a "steady state" of muscular functioning will be reached.* This means that a swimmer who keeps the flow of oxygen consistently replenished can endure great swimming effort. The recruits should be given drills and breathing exercises both on land and in the water. Deep breathing exercises out of water to develop facility for large intake of oxygen are especially recommended. The breathing exercises should be practiced daily.

The above mentioned law of inertia depends on force and time. In other words, a body at rest will tend to remain at rest. However, if a great deal of force is applied to that body its state of rest will be changed. Let us examine this in relation to water activity. If we throw a block of wood in the water, it will bob up and down until it stabilizes. In order to change this position of stability some force must be applied to the block in order to push it below the surface of the water. If, however, we place the block of wood carefully in the water to the proper depth, it will not bob up and down.

*Physiologically it is impossible for a muscle to function without oxygen. Experimentation on fatigue has clearly demonstrated the importance of oxygen to man during strenuous, active work. In laboratory experiments a muscle electrically stimulated by a succession of shocks to simulate work, was at the same time deprived of an adequate supply of oxygen. The muscle soon lost its ability to work and ceased functioning. Another muscle similiarly stimulated, but with oxygen adequately supplied weakened at first and finally reached a "steady state". In this "steady state" the muscle breakdown was balanced by the muscle recovery. In other words the oxygen-supplied muscle was not fatigued as in the case of the non-oxygen supplied muscle, but endured even through strenuous work.

Jerky, struggling strokes inhibit swimming and floating and will cause the beginner to bob up and down like the block of wood. If the man slows down his actions in the water, he will have less tendency to bob up and down. Any fast thrust of the arms or legs will change the depth of the body and start it bobbing. A wild, convulsive stroke will produce enough force to change the floating state of the swimmer. The beginner must be cautioned to move slowly and in a relaxed manner. It should also be noted that the force expended in convulsive and jerky strokes uses up too much energy and will bring on premature fatigue. Since the bluejacket may need to conserve his energy he should be impressed with the reasons for slow, relaxed swimming. (Fig. 4)

Breathing, buoyancy, and relaxation are important factors closely related to the problems of swimming. The instructor must understand the scientific background of these problems. No bluejacket can swim or keep afloat for a great length of time unless he has been taught to make the best possible use of his energy in relation to his breathing, buoyancy, and relaxation.

In order to help the instructor to teach the recruit the various skills and techniques related to swimming, the method of instruction must include some competitive activity. Such techniques as floating for time, gliding for distance, plunge for distance, picking up objects in shallow water with eyes open, and various other skills may be used as games. Competition tends to keep the men on their toes and working better. The competition should be kept at the level of swimming ability of the group or individual at any given time. Any simple type of award should be used for an incentive. Intelligent

competition between groups, platoons, and individuals is a great help in building individual pride and *esprit de corps*.

The instruction must be vital, alive and always interesting. The instructor or officer in charge should keep the lesson moving. There should be no lag. The swimming instructor should know all the swimming techniques.

It will be necessary where large groups of men are swimming together to set up some simple safety measures. There should be sufficient competent life-guards to patrol the pool and assist the instructors during every lesson period. As a further precaution the following system should be used: The platoon commander or the person in charge of swimming should divide the group into pairs. For example, have the men count off. Then pair 1 with 2, 3 with 4, 5 with 6, 7 with 8, etc. This system of assigning swimming mates is called the "buddy system". The "buddy system" is a simple and safe means of keeping check on the men in the pool. When each recruit has been assigned a mate, explain that it will be necessary for these mates to work together and to keep track of each other. During the course of the lesson the instructor should call the men to attention to check for their mates. In this way, besides the regular life-guards and the instructor, each recruit acts as a sort of assistant life-guard by keeping check on his swimming mate. This will soon inspire *confidence* in their own security. (Fig. 7)

The outline submitted below emphasizes primarily the mechanical skills necessary for elementary locomotion in the water. Where the time permits and the interest is shown more advanced swimming work should be taught the men. Advanced life-saving, crawl stroke, breast stroke, and fancy diving can be included for advanced swimmers. Where-

ever and whenever possible demonstrations in the water should be given. This helps the beginner to visualize the mechanics of locomotion or the skill being taught in its proper perspective.

A. Preliminary Training

1. Breathing: The beginner must understand that normal use of the nose for breathing is incorrect for swimming.

   a. The mouth should be used exclusively for inhalation.

   b. Rhythmic coordination of breathing should be practiced.

   c. Immersing in water with eyes open.

   d. Exhaling through mouth and nose with face immersed.

2. Relaxation:

   a. Emphasize slow action in the water.

   b. Demonstrate the bad effect of jerky and convulsive action.

   c. Demonstrate the beneficial effect of slow and relaxed swimming. Conservation of energy by use of relaxed activity.

B. Floating Skills

1. Prone Float

2. Back Float

3. Glides

   a. Prone

   b. Kick

4. Sculling, finning (floating with slight use of arms or legs).

5. Treading water.

C. Stroking

1. Human or Dog Paddle

a. Simple stroke. Requires very little time to learn.

2. Beginners' Back Stroke.

3. Side Stroke: For long distance swimming and life saving.

4. Modified Overarm Stroke:

a. This is really an overarm stroke with a slow easy up and down kick of the legs. The leg kick is executed slowly, and knees may be bent slightly. The swimmer determines the leg beat. This kick requires less energy than any other kick.

D. Advanced instruction for swimmers interested in life saving, crawl, back crawl, diving or other swimming skills.

E. Water functioning Equipment

1. Practice should be given in the use of the United States Naval life saving jackets and belts as often as possible. As these are water functioning equipment, the recruit should be made familiar with their operation.

F. Interest

1. Simple competitive events such as floating for time, gliding for distance, plunge for distance, and various trick races may be used to develop enthusiasm.

2. Foster platoon competitions of various kinds. Esprit de corps developed.

3. Water games

4. Publicity (stories and pictures) through the station newspaper.

Note: All photographs reprinted courtesy American Red Cross.

Fig. 1

THE VERTICAL FLOAT

The swimmer appears to be suspended in the water by his chin. The mouth, eyes and nose are above the surface of the water. This permits breathing. By moving his arms this swimmer can change his body balance and make his legs rise and his body to a horizontal float. See next picture.

Fig. 2

HORIZONTAL FLOAT

Note that this swimmer has extended his arms in a straight line. This affects his center of buoyance so that his legs are brought to a horizontal position. His mouth, chin, eyes and nose are above the surface of the water.

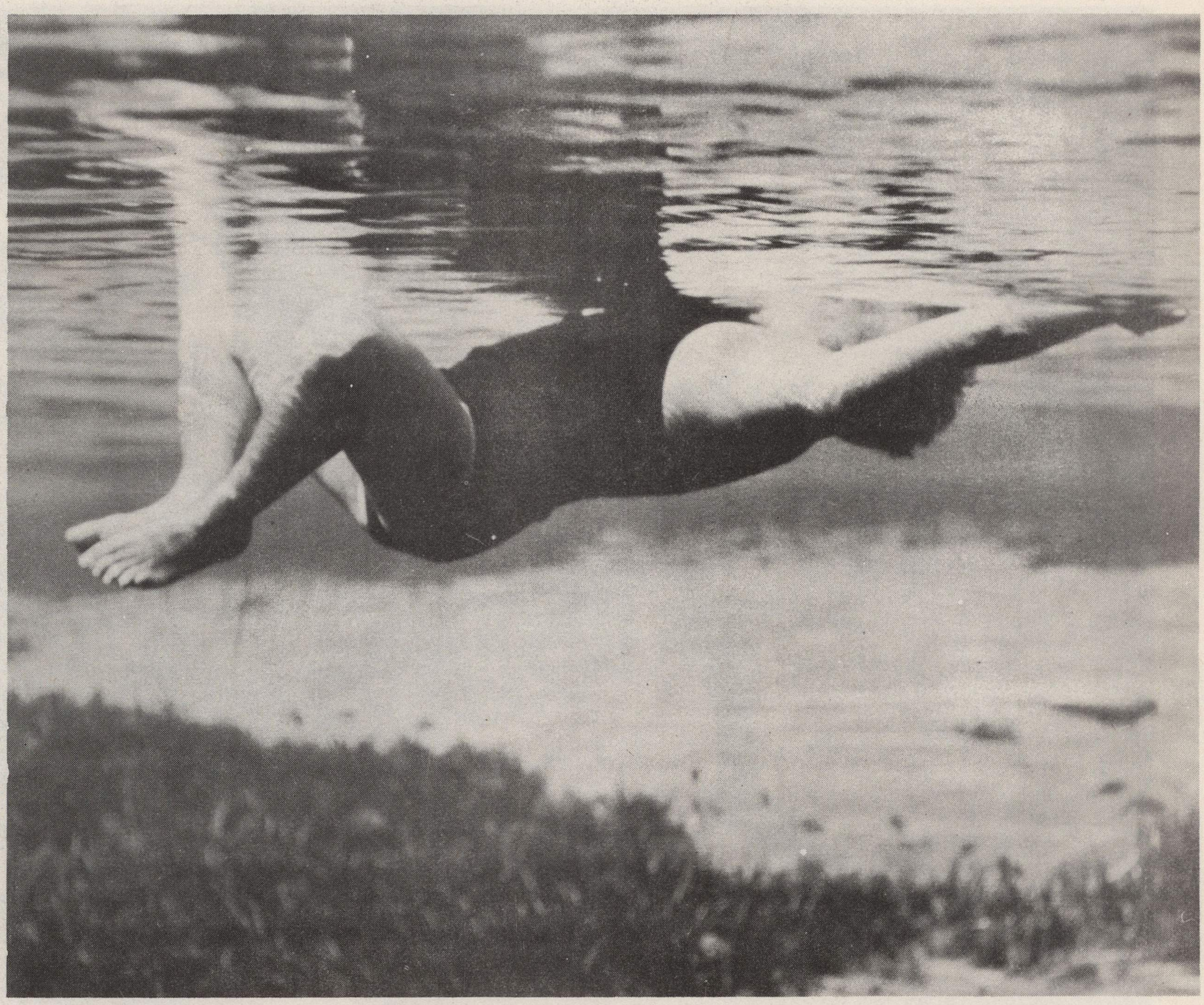


Fig. 3

HORIZONTAL FLOAT WITH KNEES BENT AND FEET DRAWN

By drawing up the feet the body balance is stabilized thus preventing the legs and feet from sinking too low and pulling the swimmer under the water. The knees are bent up slowly when the swimmer feels the legs upsetting the balance of the float.

Fig. 4

FLOATING WITH LEG MOVEMENT

This swimmer is floating and using his legs in the up and down kick. He is resting his arms to conserve his energy. The leg action is executed slowly. This may be reversed by using only the arms and resting the legs.

Fig. 5

BREATHING

A. Inhalation

Note the mouth of the swimmer is open and ready for the inhalation. The left arm is being recovered as the swimmer turns his head to the left and inhales quickly. The right arm is in the water and pulling through.

Fig. 6

BREATHING

B. Exhalation

The head is turned and the face immersed. The right arm is finishing its stroke and the left is being prepared for entry into the water. While the face is immersed the air is exhaled.

These two pictures illustrate a complete breathing cycle.

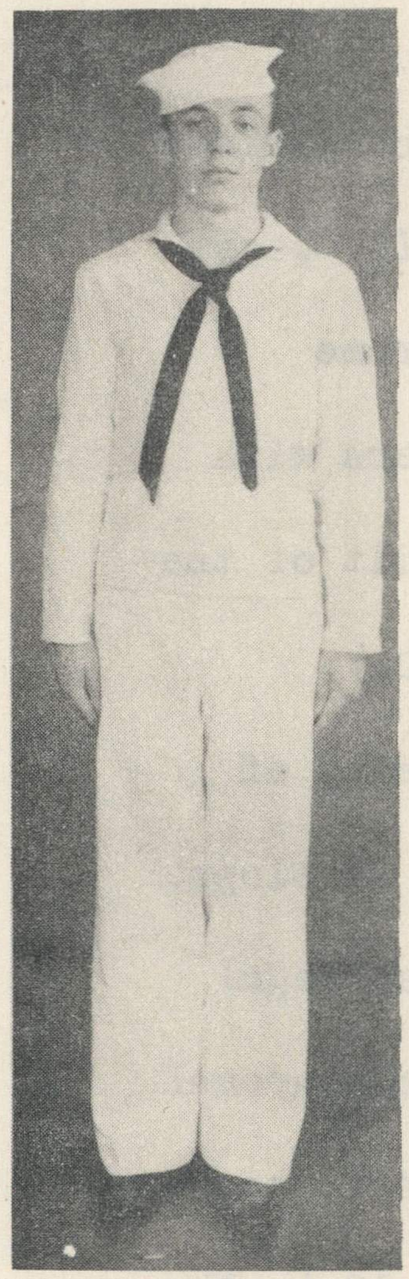
Fig. 7

ELEMENTARY RESCUE

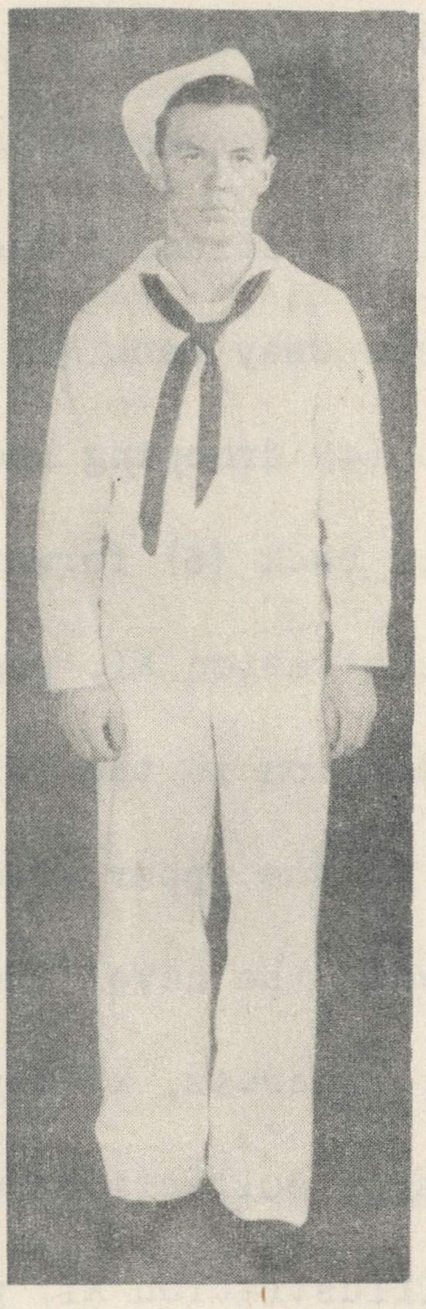
Sometimes a swimmer may be in trouble close to beach, dock or shallow water. By merely extending a stick, or towel or, as this picture illustrates, the arm, the rescuer can pull the troubled swimmer to safety without danger to the rescuer.

SUGGESTIONS FOR THE IMPROVEMENT OF POSTURE FOR NAVAL PERSONNEL

By the Physical Training Section, Training Division, Bureau of Naval Personnel.
Especially Prepared for physical trainers and drill officers.

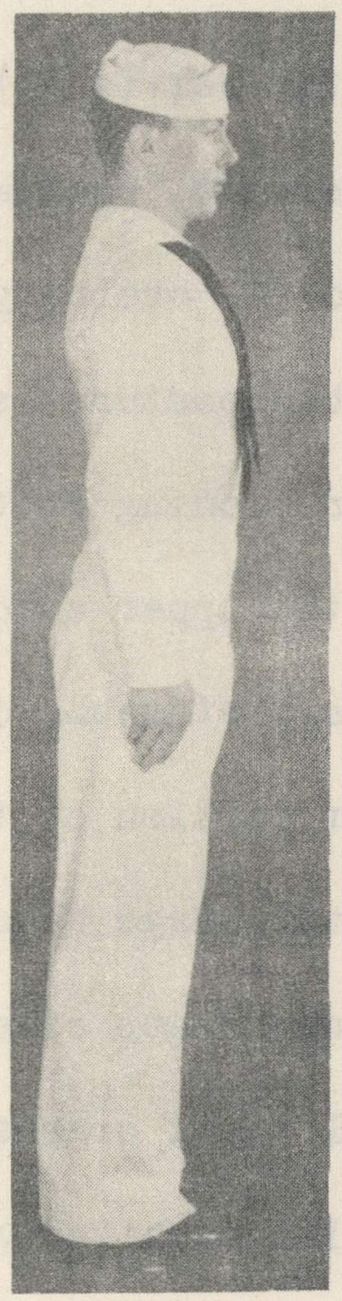


The Erect Man



The Slouched Man

The Erect Man



The Slouched Man

Introductory Note: The Bureau's objective in this illustrated paper *on posture* is to improve the posture of the Naval Personnel. The materials contained herein include (1) the importance of good posture in the Navy, (2) suggested methods to be used in improving the posture of the Navy personnel, (3) illustrated materials on good and poor military posture, (4) the effects of poor posture, and (5) corrective exercise procedures for improving posture. The materials will be considered as guides and aids to drill officers and physical instructors in improving technical posture knowledge and remedies for poor military posture.

To a considerable extent the Navy is judged by the appearance of its personnel, both officer and enlisted. The man with good posture looks more like a military man than the one with poor posture.

The defects in the naval personnel most frequently noticed violate the standards of good military posture (see Illustrations X and XIII, pages 11 and 14.) Most often noticed are (1) the deep sway back (2) extreme forward tilt of the pelvis (3) depressed chest (4) drooping shoulders with arms pushed forward (5) extremely rounded upper back (6) forward tilt of the head and neck and (7) ordinary slouch (see Illustration XI, page 10.)

Where bad posture is concerned a reduction in the efficiency of physiological functioning in the vital organs of the upper abdomen develops. In good posture the upper abdominal area (between the navel and diaphragm) contains the liver, stomach, duodenum, spleen, pancreas, kidneys, suprarenal bodies, the upper portion of the colon, the large collections of nerve centers, and the many of the large blood vessels (see Illustration XI, page 12.) When an individual shows signs of extremely poor posture (protruding, weak abdomen, etc.) the several vital organs and associated structures of the abdomen are noted as follows (see Illustration XII, page 13.):

1. The ribs sag and the diaphragm is low.

   The liver is forced downward and rotates, the right side dropping more than the left. Its axis becomes vertical instead of horizontal and often rests as a form of pouch behind the crest of the ilium. The interpretation is that mal-function must occur. The drainage of the gall bladder is more difficult than in the desired, normal position.

3. The kidneys are forced forward and downward. The ureters kink and handicap the function of the excretion.

4. The diaphragm has lost its dome. Thus it tends to force downward all the organs bearing closely upon it.

5. The displacement of the kidneys and the inevitable loss of the retro-peritoneal fat means a loss of support for the ends of the pancreas. The "head" and "tail" drop back into the lateral spinal spaces resulting in the pancreas taking a "saddle-shape" rather than being on a horizontal line which is relatively straight.

6. The transverse colon is found to be crumpled in the lower abdomen, whereas it should be in the upper area. Constipation and its attendant ills are the penalties associated with such a condition.

7. The stomach sags and usually takes a "j" shape. Frequently, the stomach is to be found hanging well down into the pelvis.

8. When the diaphragm is low there is a poor return of blood through the blood vessels accompanying the abdominal organs. Too, one should expect an abnormal tension on the superior and inferior mesenteric arteries, arising as they do from the anterior part of the aorta.

It has been found that poor posture very frequently results from (1) the man's *lack of awareness of his posture and* (2) *ignorance about good posture and how to achieve it.* In order to stimulate the Navy personnel to an improvement of the posture situation, the following program is suggested:

(1) Appropriate use be made of visual posture material such as charts and pictures.

(2) Short and frequent lecture-demonstrations be provided for men during detention. This should emphasize the possible ill effects of poor posture on both the vital organs and the man's appearance, pointing out that every bluejacket is a walking advertisement of the U. S. Navy.

(3) That men with poor posture must be talked to frequently and given individualized instruction in postural control and posture improvement. This could be done by "Chief Specialists" and drill instructors as well as by drill officers.

Suggested Procedures for Improving the Enlisted Man's Posture.

(1) *Motivation:*

Since posture is a twenty-four hour a day problem, close and continual supervision of posture is impossible. The man will be responsible in a large measure for the continual maintenance of his posture. This means he must *want* to cooperate in the posture program.

There are several ways to incite the man to a *willed* effort in improving his military posture and to make him, for the most part, independent in maintaining his good posture. An appeal can be made to the man's self-pride in appearance, indicating that he is a walking advertisement of the U. S. Navy. In this sense, it should be mentioned that the man's appearance is an important factor in recommendation for promotion. Additionally, good posture suggests good health--good posture indicates self-respect. The possible health values must be indicated (Illustration XI page 12). An important factor in stimulating posture interest

is by the use of visual aids. Bulletin boards should be used for mounting posture materials. Posture charts and posters should be in the gymnasium when possible. Moving pictures on posture improvement are invaluable in supplementing instruction. Complimenting men for good posture encourages them, while constant reminders for those of obvious poor posture will bring about a desired posture consciousness. When possible, a full-length mirror should be placed in the barracks and gymnasium so the men will have an opportunity to study their postures individually.

(2) Education:

Before the man begins his posture training he must understand *good military posture.* Illustrations X and XIII, pages 11 and 14, should be used in educating recruits to the nature of good posture. Practical work, as indicated in pages 6 and 7 should be carried out so that skill will be developed in those muscles controlling posture. Each man should have a mastery of the posture exercises illustrated in pages 7 through 9.

(3) Measurement:

Measurement is important in that it reveals progress and at the same time stimulates the man tested by showing him his improvement. Periodically, the men should be called upon to demonstrate their postural skills (exercises) and disclose their postural knowledge. Additionally, they should be given a posture rating or grade.

Nature of Specific Basic Exercises to be Used in Posture Control and Improvement.

Regardless of the type of activity being done, there are certain posture characteristics to which one must adhere if good posture is to be maintained. These characteristics involve (1) a retraction of the lower abdomen, (2) elevation of the chest, and (3) a control of the pelvic tilt.* There are other important factors in posture control as indicated in the accompanying pages (see Illustrations X and XIII), yet the three factors just mentioned are of the greatest importance.

To master these three factors one must develop postural skill in the muscles controlling the chest, abdomen, and pelvis. It is well to begin with simple exercises which involve (1) voluntary retraction of the lower abdomen, (2) voluntary rounding forward of the upper abdomen, (3) voluntary elevation of the chest, and (4) voluntary reduction of the pelvic tilt. One of the best exercises to use in helping the individual get the "feel" of posture control is illustrated below. The exercise is executed in the prone position when first being taught.

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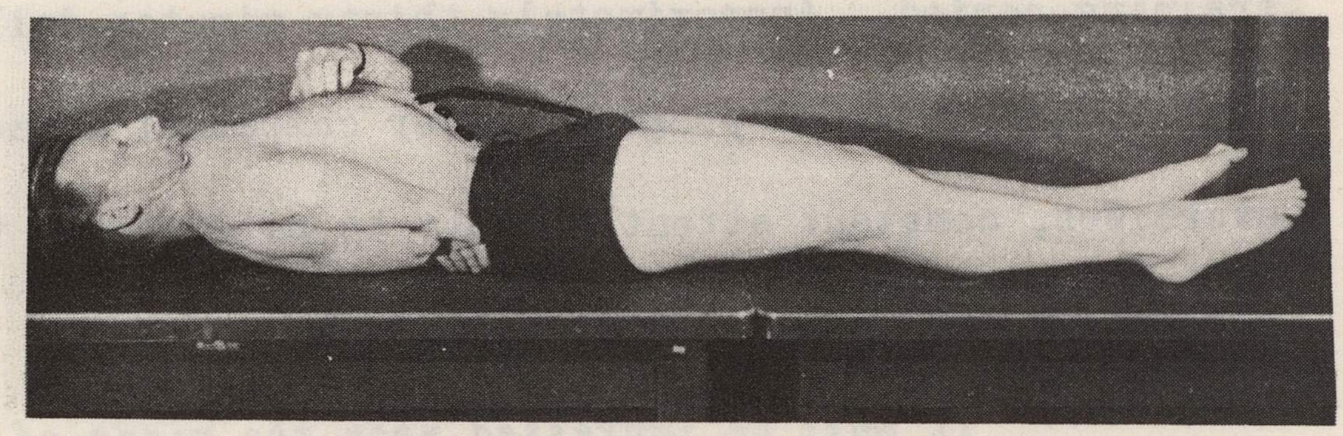
*These characteristics are equally applicable to one's posture while walking, sitting, lying, etc.

Illustration I

1. Solid line at beginning of activity.
2. Dotted line at end of exhalation.



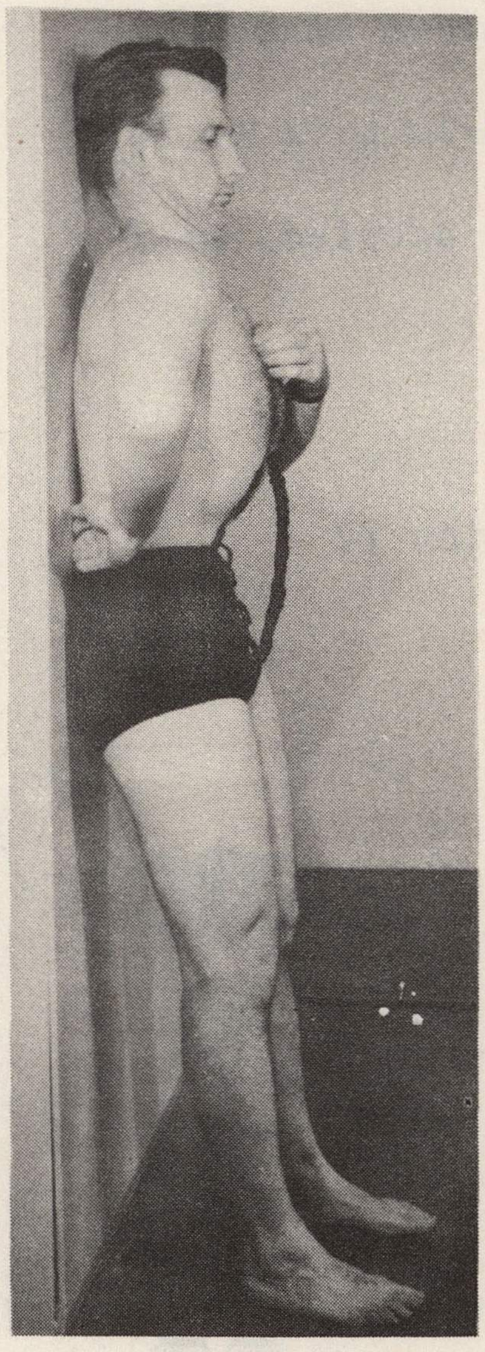


Illustration II

1. Solid line at beginning of activity.
2. Dotted line at end of exhalation.

Description: Take prone position with the "small" of the back flat against the floor and the back of the neck as near the floor as possible ("bull-neck" position). Inhale deeply, retaining the original position. Exhale slowly as if blowing through a straw. While exhaling, keep the chest fixed *in the original position* forcing the air out by retracting the lower abdominal muscles. To retain the position of the chest and lower back, keep one hand on the chest and the other at the point where the small of the back comes in contact with the floor (see Illustration I). Later, the exercise can be done by leaning against the wall, the heels a few inches out from the wall base (see Illustration II). After the individual gets "control" he will be able to execute the exercise without wall or floor support. This is an exceptionally good exercise in that it emphasizes a coordination of all the important muscles used in posture control.

In addition to the three variations of the exercise shown in Illustration I, it is deemed

essential that the following six exercises be practiced daily during the training period. Approximately thirty minutes daily shall be given to the military posture program, under competent direction. Throughout the exercises, constant attention must be paid to the three aspects of military posture control described in paragraph 1, page 6. The exercises follow.

It must be impressed upon the minds of all men of poor posture that their own conscious efforts are the best corrective. Unless they will to have good posture, all the corrective exercises in the world will be to no avail. The simple attitude of Illustration I, constantly adopted, will correct the most unsightly poor posture.

Illustration III

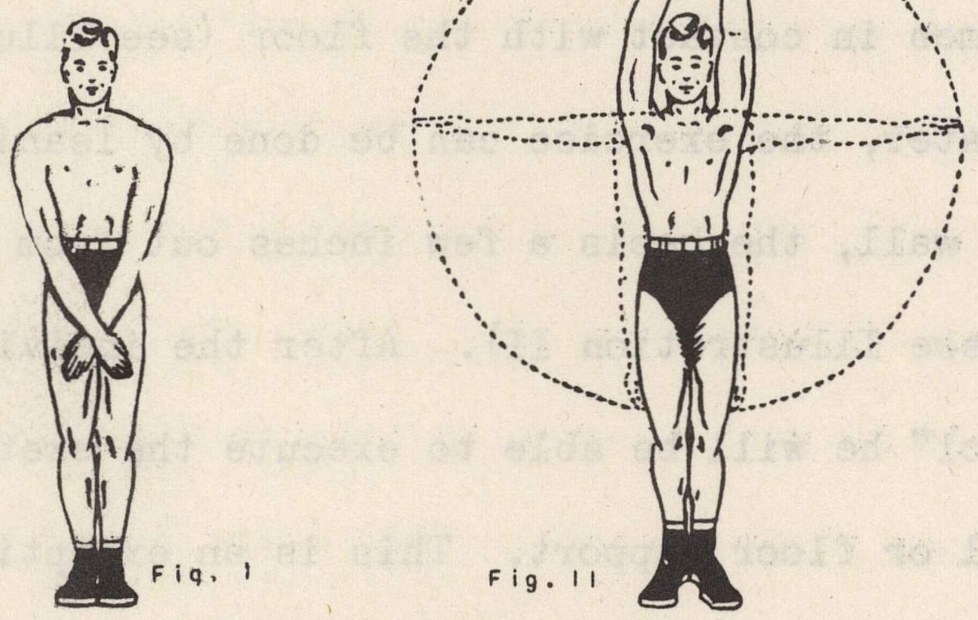


Fig. I Fig. II

(DEEP BREATHING) 6 TIMES

Arms rise from attention to cross each other in front of body (as in Figure I) and up over head back in circular motion, and down to the sides. Rise on toes as arms go up and inhale (as in Figure II).

Count 1 - Arms start up.
Count 2 - Circle and come down to sides.
Count 3 - Exhale.

Illustration IV

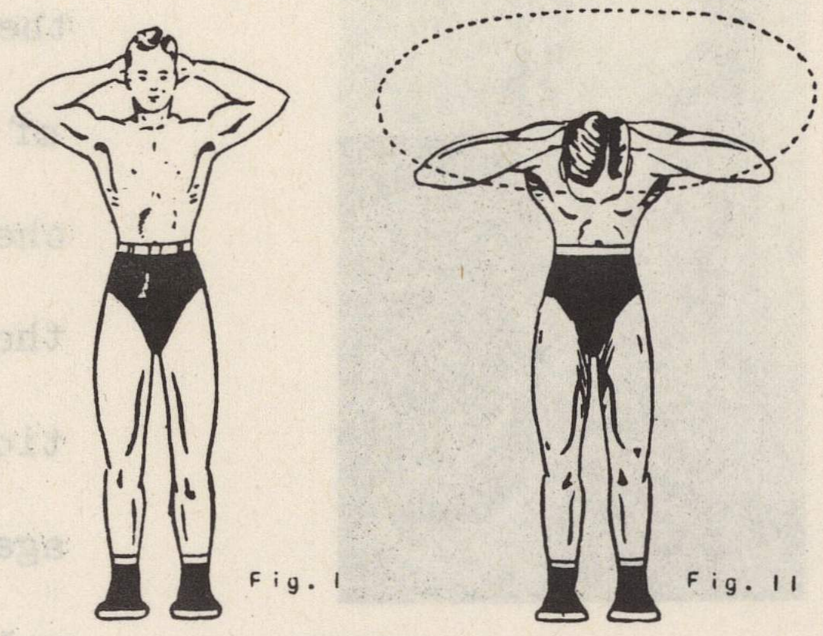


Fig. I Fig. II

(ABDOMINAL)

Start with ten times each way and work up.

Position of attention - heels about 5 inches apart.

Count 1 - Place hands clasped behind head (as in Figure I). With position go to the left in a circular outward, downward, sideward and then upward motion.

Count is: 1. Upper body bends from diaphragm to left.
2. Body moves across in a horizontal plane from left to right.
3. Return upward to start.

Bend at diaphragm - not the hips - and suck up your stomach when doing. The shoulder muscles are relaxed. Do 20 times from left to right then reverse for 20.

Illustration V

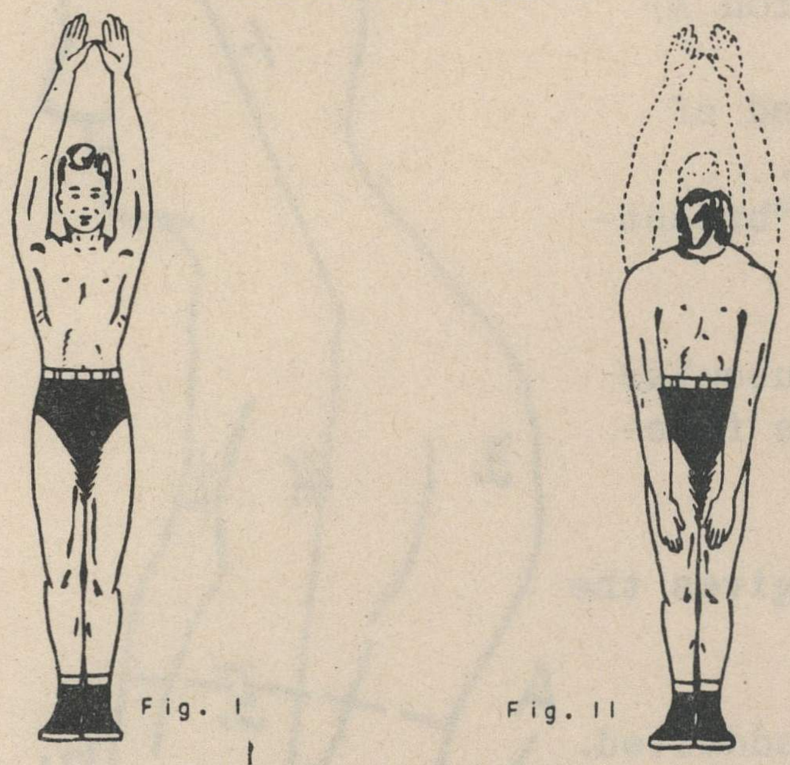


Fig. I Fig. II

(ABDOMINAL) 30 TIMES

Hands extended overhead (as in Figure I) and arms stiff are brought down to touch legs above knees, chin touching collar bone (as in Figure II). Suck up the abdominal muscles as the arms come down.

Count 1 - Arms up and inhale.
Count 2 - Arms down and suck up the stomach and exhale.

Illustration VI

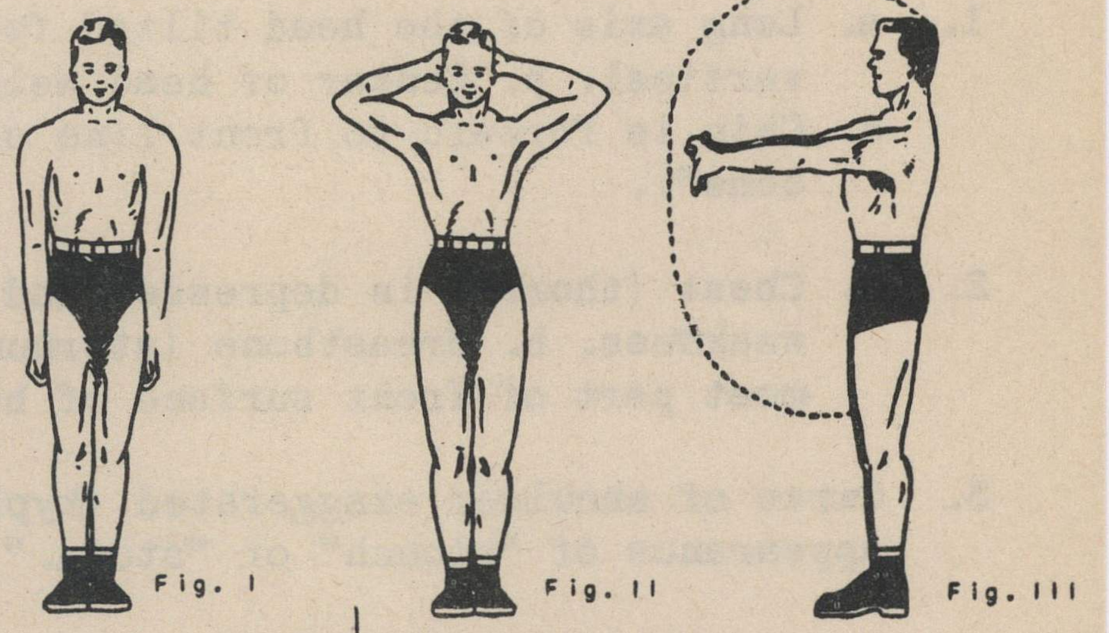


Fig. I Fig. II Fig. III

(DEEP BREATHING) 6 TIMES

From attention the arms go out and up to a position behind head (as in Figures I & II) - clasp hands and as arms are moved forward over the head, twist the hands, palms out still clasped and then down to sides (as in Figure III).

Count 1 - Raise arms up and clasp back of head - inhale from beginning of exercise until hands clasp.
Count 2 - Arms move forward and down - exhale only when exercise is complete and arms at attention position.

Illustration VII

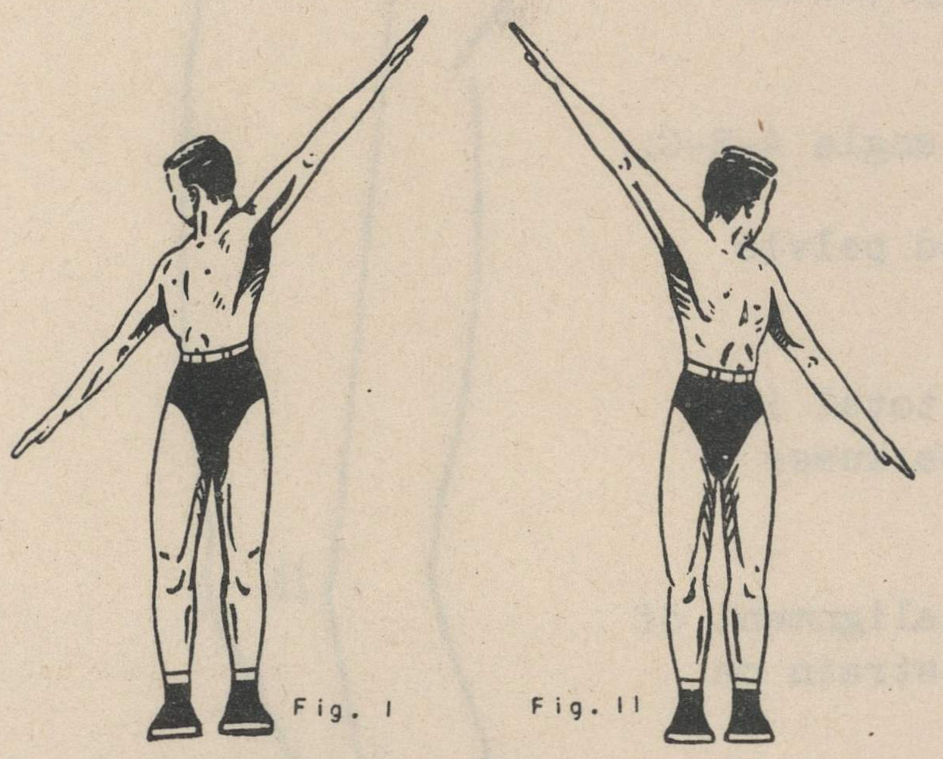


Fig. I Fig. II

(ABDOMINAL) 20 TIMES EACH SIDE

At the command "Position" extend arms sidewise from the body at shoulder level; drop the right hand 10 inches and raise the left hand 10 inches (as in Figure I); suck up stomach and lock hips.

Count 1 - Reach right hand behind and down; left hand swings forward and up, keeping stiff straight line between hands. Pivot from the diaphragm. Eyes and head follow hand back and down.
Count 2 - The position is reversed (as in Figure II). Keep hips locked, stomach sucked up.

Illustration VIII

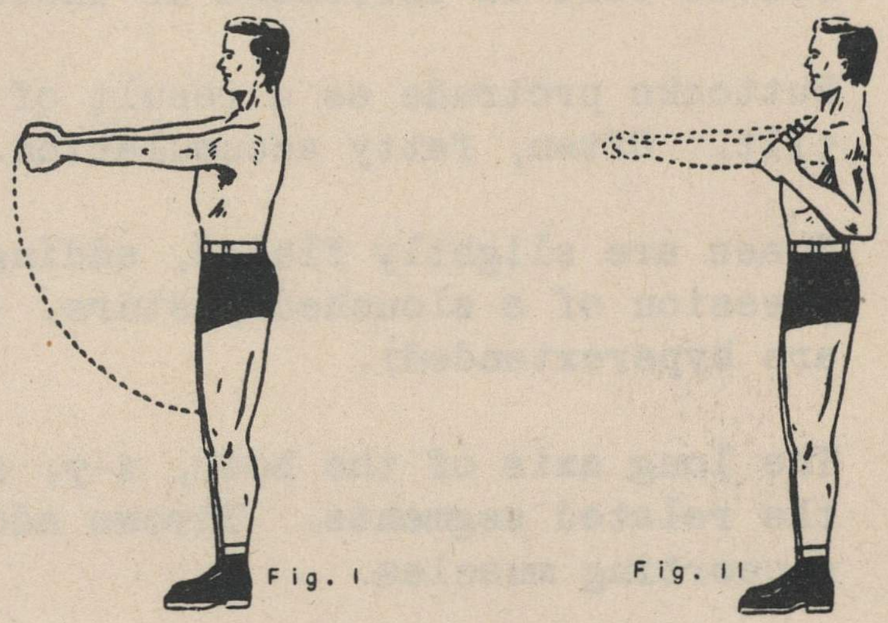


Fig. I Fig. II

(DEEP BREATHING) 6 TIMES

Inhale - Arms rise to position straight out in front of body (as in Figure I) - from here close fists and pull backward, elbows close to sides of body, very swiftly and hard (as in Figure II).

Count 1 - Arms out in front, inhale to full capacity.
Count 2-3-4-5-6 -- The fists are vigorously pulled back to shoulder and thrust forward on each count while breath is held.
Count 7 - Arms at attention and exhale. A few seconds respite is recommended before repeating exercise.

ILLUSTRATION IX

Observable Characteristics of Poor Military Posture. (Viewed in Lateral Plane.)

(Contrast with Illustration X)

1. a. Long axis of the head tilted forward instead of vertical. b. Center of head weight forward. c. Chin is forward to front line of sternum ("breast-bone").

2. a. Chest (thorax) is depressed and suggests muscular weakness. b. Breastbone (sternum) should be fore-most part of front surface of body.

3. Curve of shoulder exaggerated (kyphosis) and gives the appearance of "slouch" or "stoop."

4. Center of upper arm anterior. Shoulders are adducted.

5. Diaphragm is relatively horizontal. Poor excursion. Viscera forced downward.

6. Upper abdomen depressed, forcing visceral organs to sag deep into abdominal cavity.

7. Lower abdomen protrudes (ptosis). Indicates poor muscular control and muscular weakness.

8. "Small of the back" (lumbar area) has deep curve. Appearance is one of "hollow-back."

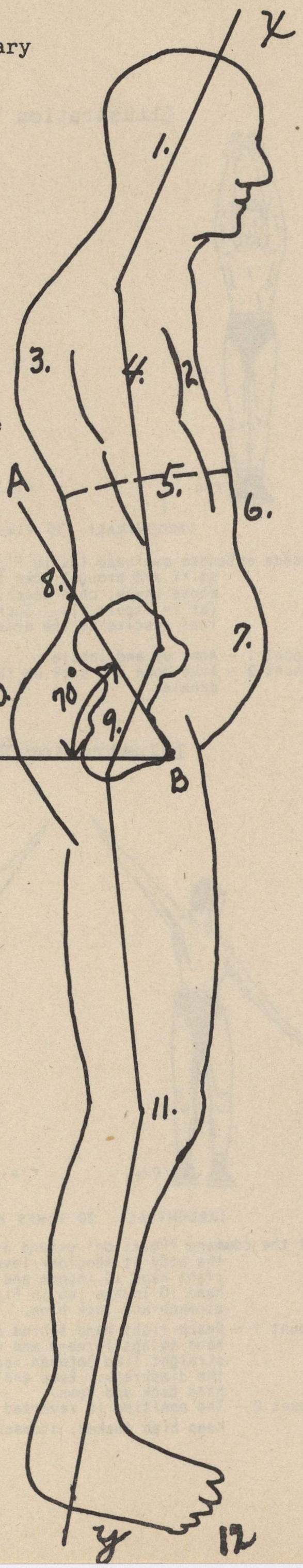
9. Pelvic tilt is increased as indicated by angle A-B-C.

10. Buttocks protrude as a result of increased pelvic tilt. Often, fatty accumulation.

11. Knees are slightly flexed, adding to the total impression of a slouched posture. (Sometimes knees are hyperextended).

12. The long axis of the body, x-y, shows malalignment of the related segments. Throws additional strain on supporting muscles.

13. General appearance is one reflecting fatigue, carelessness and slouchiness.



Observable Characteristics of Good Military Posture

(View in Lateral Plane)
(Contrast with Illustration IX)

1. a. Long axis of the head is approximately vertical.
   b. Head weight is centered. c. Chin is posterior to the foremost part of the front chest line.

2. a. The chest is elevated and gives the appearance of relaxation (not "thrown out").
   b. Foremost part of the entire body is the "breastbone" (sternum).
   c. Chest is convex forward.

3. The shoulders are slightly rounded but do not give the appearance of being stooped. Shoulders neither forward nor back.

4. Center of the upper-arm is approximately one-third the distance from back to front of the chest depth.

5. Diaphragm is arched. Three or four inches higher in front than in back.

6. The upper abdominal area curves outward and is moderately relaxed. This allows for optimal position of the visceral organs (liver, stomach, kidneys, intestines, etc.).

7. The lower abdomen is retracted, forming nearly vertical line. Power of support is from the lower abdominal muscles. This prevents "sagging" of the vital organs.

8. The "small" of the back (lumbar area) is curved slightly inward. There is an absence of "hollow back."

9. The tilt of the pelvis forms a 60 degree angle as shown by the lines A-B-C.

10. Buttocks are rounded but have no abnormal protrusion resulting from abnormal tilt of the pelvis. There are no fat accumulations.

11. Knees are neither hyperextended nor flexed. Knees are relatively straight but do not give the appearance of tension.

12. The long axis of the body is relatively straight and related parts are in alignment. Weight is borne like a telephone pole standing on end; no side tilt meaning greater ease of support. (mastoid process, acromion process, acetabulum (hip joint), center of knee joint, and point just in front of ankle joint pass through same line).

13. General appearance is one reflecting strength, control, and vitality.

Illustration X

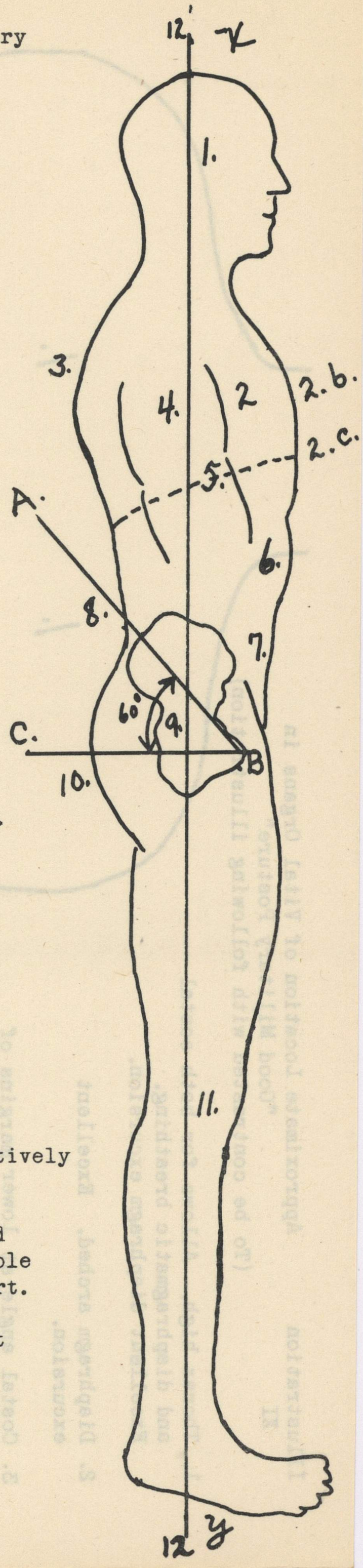


Illustration XI

Approximate Location of Vital Organs in "Good Military Posture"
(To be contrasted with following illustration)

1. Thorax high. Allows for both costal and diaphragmatic breathing. Excellent diaphragm excursion.

2. Diaphragm arched. Excellent excursion.

3. Costal angle at lower margins of ribs is about 90^0.

4. Transverse colon at level of naval.

5-6. Ascending and descending colon supported by strong lateral abdominal muscles.

7-8. Kidneys high, supported by "psoas shelf" and retro-peritoneal fat.

9-10. Ureters form relatively straight lines.

11. Stomach high in abdominal cavity. Support from below by strong abdominal muscles.

12. Liver's long axis in horizontal plane-- excellent delivery of bile.

Additional: (1) Strong abdominal muscles-especially lateral abdominal.
(2) Tonus of smooth muscle of vital organs excellent.
(3) Peristalsis of colon good--support by abdominals.
(4) Pancreas in horizontal plane and high in abdominal cavity.

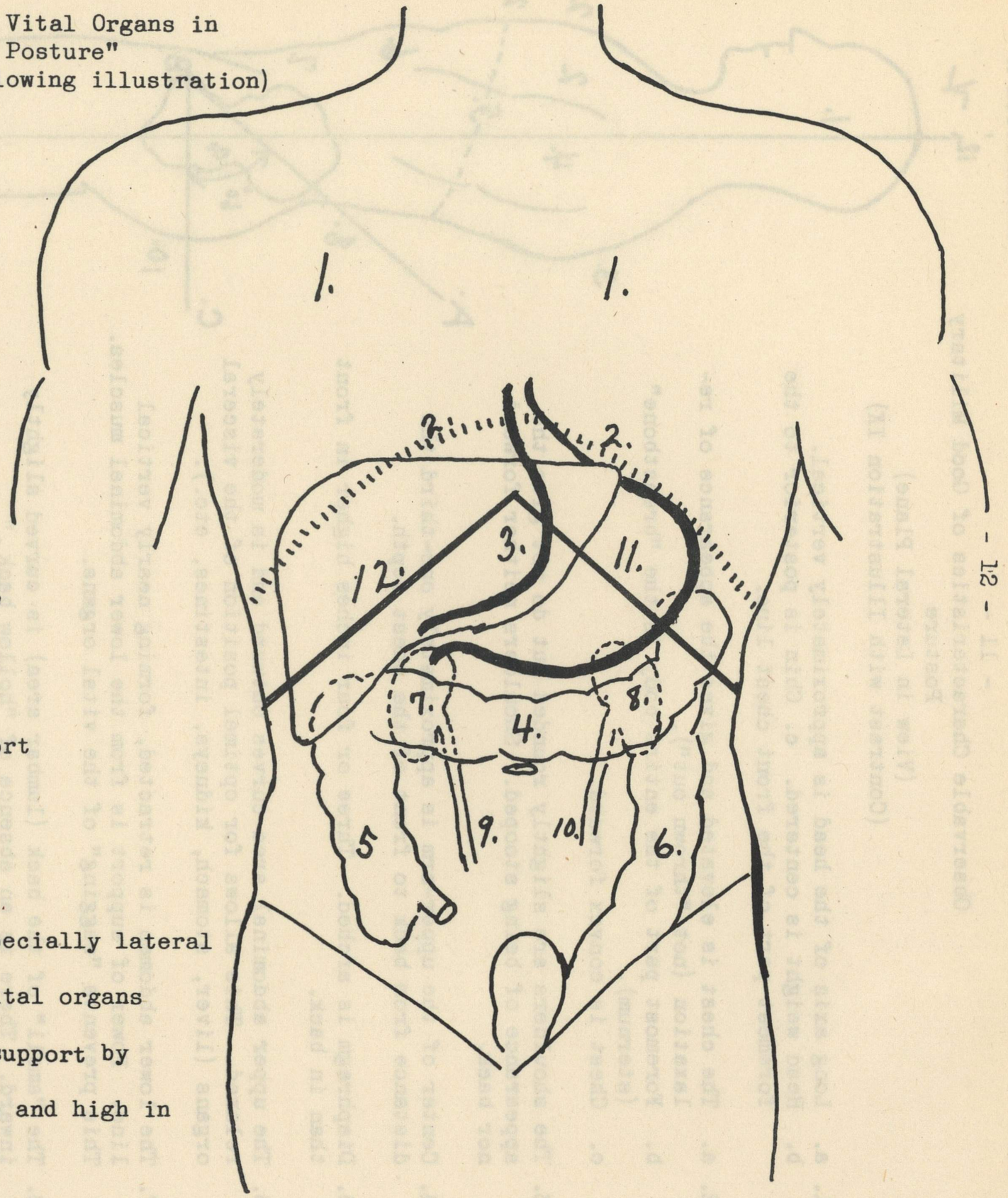


Illustration XII — Approximate Location of Vital Organs in "Poor Military Posture"--with General Characteristics--(to be contrasted with preceding illustration)

1. General depression of thorax and adduction of shoulders causes:

2. Depressed diaphragm forces vital organs lower in abdominal cavity.

3. Narrow costal angle-non-athletic type.

4. Large colon "kinked"--poor tonus results in poor peristalsis--constipation common.

5-6. Ascending and descending colon without adequate support--poor tonus results; colon "kinks."

7-8. Kidneys forward and downward.

9-10. Ureters "kink"--lost support as in "normal."

11. Stomach low in abdominal cavity---takes "J" shape---poor tonus and function.

12. Long axis of liver vertical---liver low, poor function--effects of gravity.

Additional:

(1) Large blood vessels of abdomen hampered.

(2) Impingements on plexus of sympathetic nervous system.

(3) Low muscular strength; abdominal, especially.

(4) Smooth muscle of vital organs weak---low tonus.

(5) Pancreas "saddle-shaped" over vertebral column. (Can't be seen in front view)

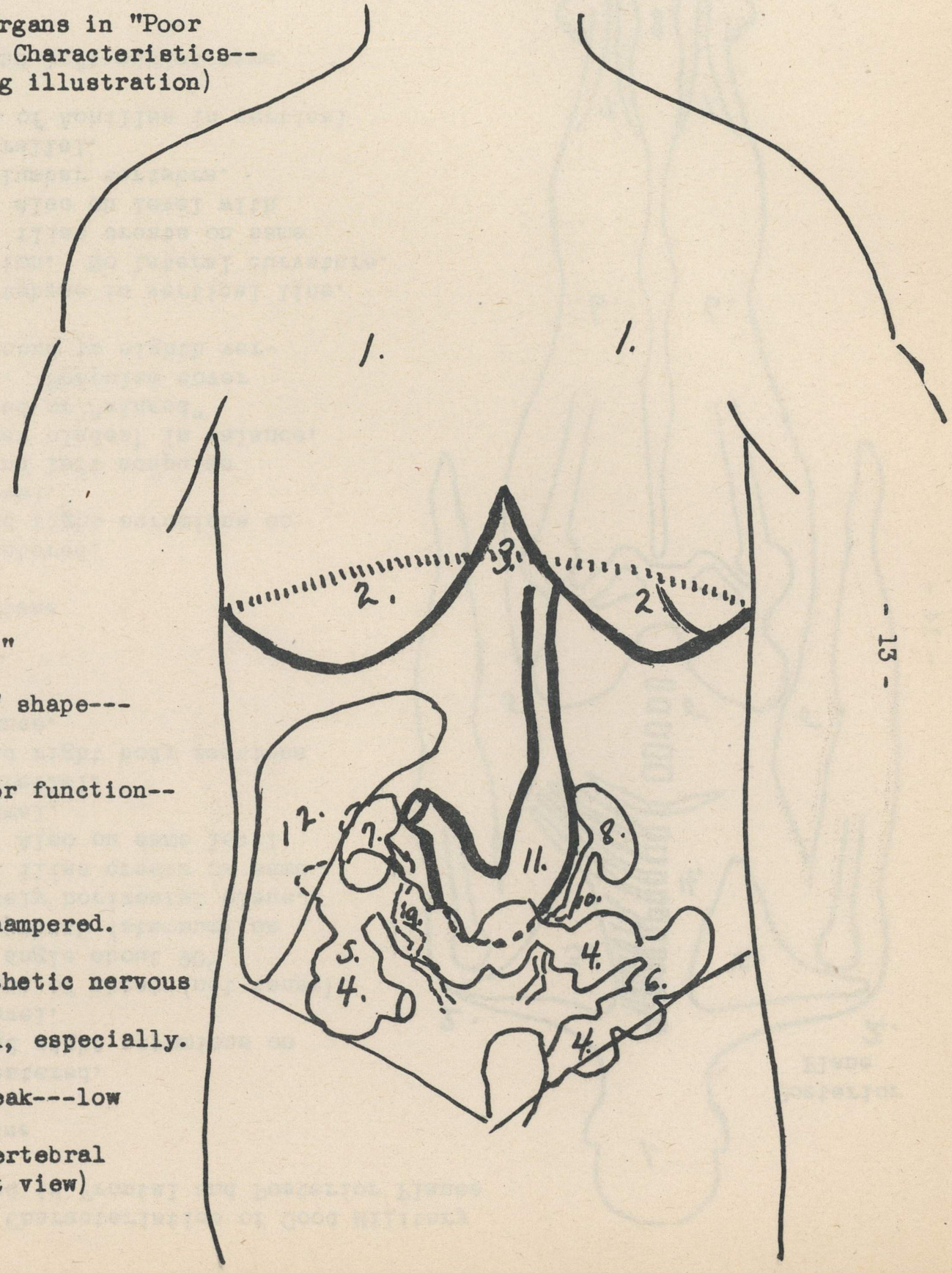
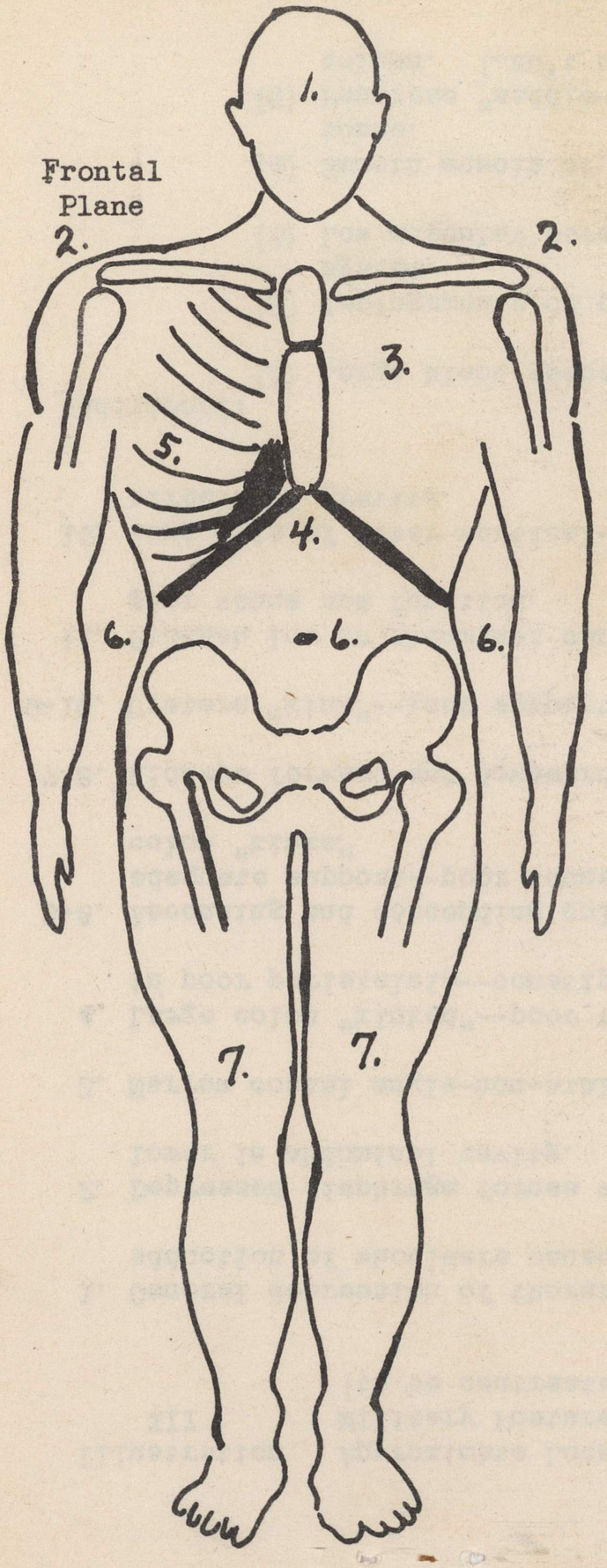


ILLUSTRATION XIII



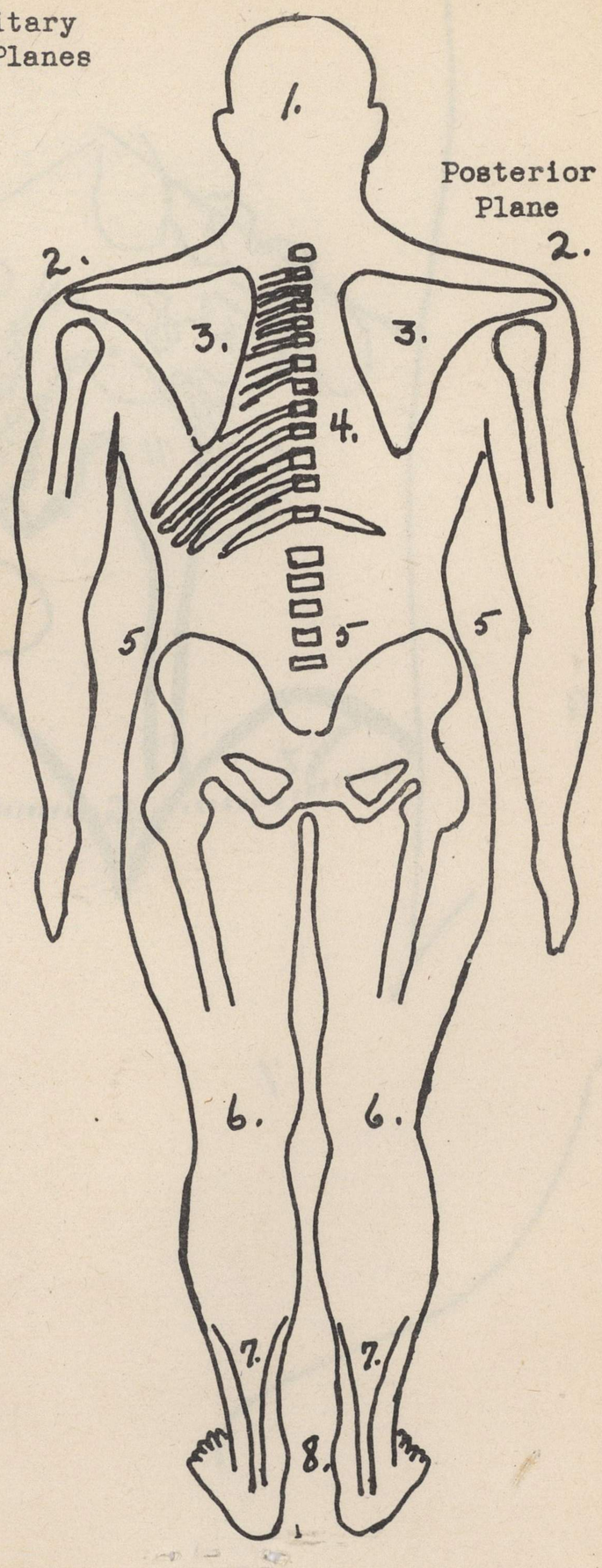
Observable Characteristics of Good Military Posture Viewed in Frontal and Posterior Planes

Frontal Plane

1. Head centered.
2. Left and right acromions on same level.
3. Elevation of chest (not tense).
4. Costal angle about 90°.
5. Ribs approach (sternum) on relatively horizontal plane.
6. Lateral iliac crests on same level. Also on same level with navel.
7. Legs parallel.
8. Left and right body sections in balance.

Posterior Plane

1. Head centered.
2. Left and right acromions on same level.
3. Right and left scapulae (shoulder blades) in balance. No flared or "winged" scapula. Scapulae cover from second to eighth vertebrae.
4. All vertebrae in vertical line. No torsion. No lateral curvature.
5. Lateral iliac crests on same level. Also on level with fourth lumbar vertebra.
6. Legs parallel.
7. Tendons of Achilles in vertical lines.
8. Right and left ankles same size.



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.

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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 miantain, facilities aboundant 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.

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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-

SPRINGFIELD COLLEGE BULLETIN

SPRINGFIELD
MASS.

"To Win The War . .
. . To Win The Peace"

AT this time, Springfield College has two major functions:

Our first function is to determine the ways in which the College may best serve our Nation and its Allies in winning the war—to see that the facilities and equipment of the institution are used to the best advantage and to make available the specialized services of our faculty, graduates, and students.

We are readjusting our curricula to meet the war-time needs of our students. We are accelerating our program to prepare more students in less time. We have offered the facilities and equipment of the College to the Government to be used for training and research purposes.

Several members of the faculty — specialists in health and physical education and the applied social sciences— are working in research laboratories, in recreation, and administration in the military services and in defense industries.

In war as in peace, graduates of the College are dedicated to unflagging service to the youth of the world. Alumni are shifting from their peacetime jobs in schools, colleges, Y.M.C.A.'s, and other social agencies, to instructional or administrative duties in the military forces, Government agencies, or the U.S.O., and are enlisting in combat units.

Students in the College — many of them registered under the Selective Service Act—are determined to do their share. Many have volunteered or have willingly answered the summons of their Selective Service Boards.

Our second major function is to plan and to prepare for the winning of the peace.

In marked contrast to the patriotic fever and religious fervor of 1917, the Nation has entered this war with few illusions. We know that war is a grim and bloody business. We realize the acuteness of our own national danger. We know the limitations of idealistic formulas in settling world problems. We are aware that the social economic revolution which has destroyed the privileged classes and degraded the standards of living in Europe and in the British Commonwealth is slowly but inexorably overtaking us in America. We are sure that the sacrifices of the war must be carried over into the peace.

We have a sober sense of marching down the unknown and dangerous roads of world destiny and a determination that this time we will not fail to keep the faith. We are determined to win the war. We are even more determined not to lose the peace.

Springfield College has always been international in spirit as well as international in name. We have done our best to spread the ideas and ideals of world brotherhood, of racial equality, and of international co-operation. As we prepare to win the war and the peace, we dedicate ourselves anew to the building of a new social order based on sharing, on freedom, and on love.

Tom Best

President

Wartime Summer Term Is Announced

UPON recommendation of the government and the various college associations, the College will operate an extra ten-week summer term each year during the war emergency.

Several alternative plans were suggested for this summer term and the one which was desired by a large majority vote of the students and faculty was adopted.

The "June session" of the summer term will open May 25, the day after Commencement exercises, and continue for five weeks, until June 27.

Then the students will be free for vacation or employment for eight weeks. The "September session" of the summer term will begin August 31 and continue for five weeks, until October 3. Students will register on October 1-3 for the regular fall term and classes will begin October 5.

The "Springfield Acceleration Plan," as this arrangement is called, is unique in that it permits students to secure positions as camp counselors and recreational directors during the peak of the season. This consideration is important since fully two-thirds of the students seek such employment during the summer both for the money earned and for the educational experience gained. The two-month period from June 28 to August 30 almost exactly coincides with the camping and vacation seasons.

The faculty will soon announce the courses for the summer term. Nearly all of the faculty will be teaching and a wide variety of courses will be presented. It is expected that complete courses will be covered in each term, each student probably carrying two academic and one activity course each term. Some of these courses will necessarily have to be offered in the regular year also since it is not likely that all students can attend the summer term.

Present indications are that a majority of the students will avail themselves of the accelerated plan. If some form of government aid, which has been recommended by the educational associations, is made available, more students will enter the summer term. Springfield students rely so heavily upon summer

(Continued on Page 4)

In this issue of the *College Bulletin* we propose to state some of our fundamental convictions about *winning the war and the peace,* to report on changes in educational plans for the next few years, and to give information in question-answer form to the many prospective students who are naturally curious about many matters of an emergency nature which are not reported in the catalog and other printed literature of the College.

Youth and the Future

A Document of Primary Importance to Springfield College

THE unique role of Springfield College in the American social scene was verified recently by the publication of the "General Report of the American Youth Commission of the American Council on Education."

Entitled *Youth and the Future,* this volume summarizes the six-year program of research and planning of a commission headed by Owen D. Young and including representatives from all the main social groups in America. Floyd Reeves was the executive director and editor.

When we read this volume we are impressed with the pertinence of the phrase which we have frequently used in publicizing Springfield College, "Careers in Youth Leadership."

The clear-cut implication of this monumental report for Springfield College is that its services as a training center for religiously and socially motivated, technically competent, and liberally educated leaders of youth will be more needed in the future than in the past. Alumni, trustees, administration and students will need to face the full import of *Youth and the Future,* not only to guide us all in our planning and doing during the war emergency but also to clarify and direct our thinking during the next decades.

Youth and the Future documents what Springfield College has held to be a necessary and suitable program for the education of persons who wish to concentrate their efforts in the building of a better society through the guidance and education of young people. The program illuminated in the report—including many of its specific recommendations—will be put into operation in the next few years by national, state, and community agencies, by churches, by private social welfare organizations and particularly by schools and the character building and recreational centers with which Springfield College has been so intimately associated for years.

Let us assume that Springfield College will go right on preparing the majority of its graduates to assume better positions of leadership among young people in youth-serving agencies. What needs of youth are now recognized by the American Youth Commission as being primary? The whole report revolves around the identification and amplification of these fundamental needs and suggestions for satisfying them.

1. ***Education.*** Special emphasis must be placed upon social orientation, personality development and vocational education. There must be an adequate program for those who should prepare for college and continue through college.

2. ***Occupational adjustment.*** There is need for adequate vocational guidance, counseling and placement, trial experiences, and some permanent form of work-plan under an improved C.C.C. or N.Y.A. organization.

3. ***Use of leisure time.*** "The quality of an individual or of civilization becomes starkly apparent in the use of leisure time." Creative, morale-building, socially meaningful, and physically suitable recreational opportunities are needed under competent leaders who are motivated by a sound social philosophy.

4. ***Marriage and the home.*** There must be better social welfare for the large number of children and youth whose homes are seriously inadequate, and above all there must be better planning with youth for the homes which they themselves hope to found.

5. ***Health and fitness.*** There must be medical, dental, and nutritional care and remediation. More economical in the long run will be adequate programs of health education, physical conditioning and continuing opportunities for maintaining physical fitness. The deplorable state of many young men appearing before the Selective Service Boards is inexcusable in the light of what we know and can do about health and physical fitness today.

(Continued on Page 8)

Physical Fitness

The Role Of Springfield College In The War Effort

EVERY college today must discover the best way to serve the needs of the nation. Springfield College feels fortunate that through the years it has been engaged in the preparation of young men for certain fields of professional leadership which are crucially important today.

From the Army, the Navy, the Air Corps, Selective Service, industry, and in every community, there is the continuous restatement of the fact that America's young men are lacking in ***physical fitness.*** The director of Selective Service says,

"About fifty per cent of the approximately 2,000,000 registrants who have been examined for induction into the Army of the United States under the Selective Training and Service Act of 1940 have been disqualified because of physical, mental, or educational reasons. Of the approximately 1,000,000 rejected, 900,000, or about 90 per cent, were found to be physically or mentally unfit."

The most common causes were organic deficiences. However, the Selective Service examinations did not take into consideration the lack of strength, all-around physical sluggishness, and lack of flexibility, which would not show up in ordinary medical examinations.

For years Springfield has been one of the major training centers in the United States for directors of health and physical education in public schools, recreation centers, and social agencies. Springfield College is now at the center of this problem. Students who enter Springfield College in order to major in health and physical education will make a direct contribution to their national defense through the increased efficiency of the boys and girls who come under their teaching and direction.

Springfield alumni in the military services are gradually being assigned to specialized functions in health and physical education. In some branches, the military officers have come to the College directly to seek its graduates for conditioning programs in the services. Not only in the camps but also in the defense industries there is a tremendous need today for adequately trained and socially oriented health and physical education directors.

Nor is this pressing need only a matter of the next year or two. If this need were only a passing one, there would be no urgency in recruiting young men to pursue a course in health and physical education. The American Youth Commission in its recent volume, "Youth and the Future," has called to our attention the fact that health and physical fitness were two of the prime needs of youth and that after the emergency is over we must commit ourselves to the plan of getting every boy and girl developed to his maximum fitness. We are wasting millions of dollars in resources and, of course, millions of hours of personal happiness by letting our people remain at low levels of physical effectiveness.

It seems apparent, then, that now and later, in the war and in the peace, the need of health and physical educators in programs for physical fitness and its correlative mental fitness must be given first place.

Students entering into preparation for careers in health and physical education thus serve their country in three distinct ways: improving their own personal fitness, becoming equipped to assume physical and recreational leadership in military and community services, and preparing for crucial reconstruction services in the postwar period.

More than quickly learned tricks of the trade are needed—even though under emergency some shortcuts may be considered imperative. Springfield's emphasis upon a sensible balance between formal gymnastics and informal game activities, its stress upon a sound biological basis for theory and practice in health and physical education, its insistence that the cultural and the professional should be integrated into a solid curriculum—all these viewpoints are still valid and will be retained.

Should I Go To College In Times Like These?

THIS is a personal question—one fraught with many moral implications. President Conant of Harvard has this to say:

"In this as in preceding wars, it seems that able-bodied young men as yet untrained as specialists, must largely determine their own futures. The decision is a difficult and trying one for young men to make. But each individual must make it for himself, for he will have to live with himself and face the consequences of the decision for the remainder of his days. The question of whether or not he can be of greater service by volunteering for active duty, or by taking another path, can only be settled by each person for himself—settled on the basis of the best evidence he can command and in the light of his own convictions."

Essentially your choices are as follows:

1. Enlisting in some branch of the Army, Navy, Air Corps, Marines, or Coast Guard now or in the near future.
2. Seeking employment in some essential defense industry.
3. Entering the college of your choice in the light of your long range educational and vocational goals, ready to answer the call of Selective Service when needed or to enlist in a preferred branch when educationally and technically prepared.

All three of these alternatives are real and each should be weighed for its merits. Those who are held responsible for the collegiate education of our most competent young Americans for positions of leadership and responsibility feel that the conflict between the first and third alternatives is significant.

This is **total war.** Men must be trained—and trained quickly and in great numbers to fly the planes, man the tanks and sail the ships. For each of the various branches of the service there is need for thousands of men with all sorts of abilities and personalities.

But this is **total war.** It is war which will be won not only on the battlefields but also in the factories and on the farms. Furthermore, in **total war** the defense effort necessarily includes the work of the colleges and universities. In a long war and in a terrifically complicated period of post-war readjustment, the need for an educated leadership becomes very acute. The colleges make their appeal to competent and alert young men to seriously consider entering college as soon as they are ready and continuing as far as they can before their nation calls them for military service. If possible, they should complete their undergraduate course of study.

SPRINGFIELD COLLEGE BULLETIN
Volume XVI MARCH, 1942 Number 5

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A Timely Warning

To Wartime America

In a special cable to the New York Post, dated in London, February 3, Correspondent Stoneham reported England's serious difficulties arising out of the break-up of the normal living of families and communities. Delinquency in particular has risen to serious proportions.

The social leaders of England apparently agree, Stoneham reports, that the United States can avoid mistakes by heeding four "don'ts," two of which are of primary interest to the students, faculty, and alumni of Springfield and to the young men who contemplate professional training for careers in youth leadership.

1. "Don't close schools anywhere if you can help it." They suggest that school teachers should be kept in the schools and that if possible educational opportunities should be increased.

2. "Don't close any clubs or recreation centers. Increase activities of such organizations as Knights of Columbus, Y.M.C.A., Y.W.C.A., and of all settlements and playgrounds. A good Boy Scout or Y.M.C.A. leader or a good playground superintendent can do more for his country by sticking to his job than by trying to learn to fire a rifle."

3. The third recommendation concerns the necessity of keeping families intact, especially in relation to the mothers employed in industry.

4. The fourth recommendation concerns the need for an orderly way of inducting youth into industry and the ways in which they are allowed to spend the new money which they earn.

Another warning which Stoneham makes is that clubs, schools, and organizations must not be largely staffed by physically misfit people. Even though many of them are very competent, they should not dominate the program.

It is his last idea in which we are particularly interested. What a shame if in the process of winning the war front we would lose the home front! This is not to say that all persons employed in the recreational and social centers should be automatically deferred from military service or refused the privilege of enlistment. It does mean that there should be an intelligent public policy regarding service so that there will be reasonable balance maintained in the leadership in civilian centers of concentrated population and in the military services.

Students who are about to begin their college careers may find that by the time they have spent three years on the accelerated plan, that the actual military situation may be so clarified that they will not be needed as soldiers. If this is true they should not feel that they have been disloyal for not contributing to immediate national defense. In the next decade there will be such tremendous reconstruction problems brought on by the war that these young men who are now just beginning college will find a gigantic task before them beginning on the day of their graduation.

This war will not end with the armistice. **Winning the peace** will be a major battle in which social leaders and educators must be front-line combatants.

Commencement Dates

May 22, Friday Alumni Reunions
Baccalaureate Service, in the evening
May 23, Saturday
Alumni Breakfast and Annual Meeting
Commencement dinner
May 24, Sunday
Memorial service, in the morning
Commencement exercises, in the afternoon

Our Number One Resource

"Children and young people who are healthy, self-reliant, well-trained, and aggressively loyal are vital to the security of our country. Especially during war-time we must maintain adequate standards of health, welfare, and education, to develop and protect our Number One National Resource." From letter of "Emergency Co-operating Committee for Children and Youth." February 4, 1942.

President Explains Duty Of College Students

In the Summer of 1940, President Roosevelt issued the following statement. Recently he asserted in reply to direct questioning that the viewpoint still holds. The statement was addressed to Mr. Paul McNutt, Director of the Federal Security Agency.

"Reports have reached me that some young people who had planned to enter college this fall, as well as a number of those who attended college last year, are intending to interrupt their education at this time because they feel that it is more patriotic to work in a shipyard, or to enlist in the Army or Navy, than it is to attend college. Such a decision would be unfortunate.

"We must have well-educated and intelligent citizens who have sound judgment in dealing with the difficult problems of today. We must also have scientists, engineers, economists, and other people with specialized knowledge, to plan and to build for national defense as well as for social and economic progress. Young people should be advised that it is their patriotic duty to continue the normal course of their education, unless and until they are called, so that they will be well prepared for greatest usefulness to their country. They will be promptly notified if they are needed for other patriotic services."

Wartime Summer Term

(Continued from Page 2)

earnings for paying for their education that any summer plan would be hard on them. Nevertheless, the advantages of being able to complete their education before being called for service are so great that they and their families are willing to make sacrifices. However, because of these personal differences in financial status, the acceleration plan must be optional.

Under the accelerated plan, present juniors can finish their course by mid-March, 1943, instead of mid-June. Present sophomores can finish their course by late December, 1943, by attending summer terms of 1942 and 1943. Present freshmen can finish their course by the end of the summer of 1944, instead of in the spring of 1945, if they attend three summer terms.

The plan for freshmen who will enter this year is described in another section of this issue.

The regular summer session of five weeks which has been held for several decades will be continued. The dates are June 29 to August 1. The courses in this session are chiefly for upper level and graduate students. A special bulletin is available from Dr. Raymond Drewry, director.

THE EMERGENCY PROGRAM

Some Answers to Frequently Asked Questions

The outbreak of war on December 7 meant an end to "college as usual." Changes in plans, reviews of policies, shifts in emphasis, enforced changes in procedures, and governmental regulations have occurred.

In the paragraphs which follow the Department of Admissions answers in as concrete terms as possible the most frequently asked questions which prospective students, alumni, and scholastic advisers have made through the mail and in person.

Obviously there will be further questions and some which are more personal to the inquirer. The Director of Admissions will answer such inquiries as promptly and effectively as possible.

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1. ***Does Springfield College plan an "accelerated program"?***

Yes. Springfield College, upon the recommendation of the federal government and the various associations of colleges with which the College is affiliated, has decided to operate on a year-round basis during the emergency. Classes will be held on Saturdays. Minor holidays will be eliminated. Christmas vacations will be shortened. Ten-week summer terms will be added.

2. ***Just what does "acceleration" mean?***

Your total *time of study* in college will not be shortened. You will still attend the equivalent of four college years of nine months each. You will attend more weeks of each year. You can graduate in two years and ten months.

Academic and professional standards will be maintained. The purpose of the acceleration program is primarily to provide promptly a large supply of well-educated young men for civilian and military service.

Entering as a freshman in the fall of 1942 you can continue through *three years* of *four terms* each and graduate in mid-summer, 1945, in place of the normal time of graduation in June, 1946. By entering in the *summer* of 1942, as described in a later paragraph, you can finish in May or June of 1945.

The accelerated program is designed so that more of you can complete your education before you are called into military or other governmental services and that when you do enter these services, you will have a richer and more complete general and technical background with which to approach your assignments.

3. ***Must I attend on the accelerated plan?***

The plan is optional. You can elect four regular school years if you like. It is expected that most students will choose the accelerated program.

4. ***What are the dates for the College year, beginning in the Fall, 1942?***

Fall Term: October 1-December 19, 1942
Winter Term: January 4-March 13, 1943
Spring Term: March 15-May 23, 1943
Summer Term, 1943: Dates not yet determined; to be announced after experiences of 1942 and further governmental suggestions are available. A ten-week summer term is essential each year under the accelerated plan.

5. ***Can freshmen enter in the Summer of 1942?***

It is considered more desirable for you to enter in the fall of 1942, that is, on October 1, 1942. The large majority of the freshman class will begin their work then and regular programs will be oriented to this date.

Because you will not yet be through high school, you cannot enter the "June session" (May 25-June 27) of the present summer term. Therefore, the College has planned the following pattern for those of you who wish to begin earlier than October 1.

The Summer Term for Freshmen

1. First session: June 29-August 1 (coincident with the regular Summer School which has been held here for years).
2. Vacation: August 2-August 30.
3. Second session: August 31-October 3 (the "September session," during which the majority of undergraduates will be in residence).

If you elect to enter in the summer term you must necessarily attend both of these sessions.

On an intensive basis you will complete two full year freshman courses; *History of Civilization, Mathematics,* and *General Chemistry* are the tentatively chosen courses.

6. ***Will Springfield admit students who have not officially finished high school?***

Some of you who are exceptionally competent high school students can demonstrate that you are as well prepared for college at the end of your junior year as many other students are at the end of their senior year. Such demonstration would include at least these factors: you must rank in the upper 10 per cent of your class, have a high score on a scholastic aptitude test, receive an unqualified recommendation from your principal, have shown evidence of maturity of judgment and social adjustment, and be physically mature.

If you have completed your junior year or half of your senior year and wish to make application for admission, you should communicate immediately with the Director of Admissions because such applications will require a longer period of investigation.

7. ***What will be the cost of the Summer Term?***

The *Summer Term* is the equivalent of one-third of a regular school year: Freshmen will pay $130 tuition for two academic courses and one physical activity course, including use of athletic equipment, clothing for physical activity courses, locker, etc.; $25-$35 for room rent; and a $6 Student Association fee. Board in the cafeteria will cost from $6 to $8 a week, depending upon needs and choices. Books and supplies will not amount to more than $10. Estimated total: $220-$250. Tuition for each five weeks' session will be $65 and the other costs will be approximately half of the cost for the ten weeks' term.

The estimates of costs for the *regular school year* from October through May are the same as announced in the College catalog, except that food costs are slightly increased. An $825 budget is reasonable.

8. ***Scholarships in the summer term?***

Scholarships will not be available for freshmen in the summer term of 1942. Freshman scholarships will become effective on October 1.

9. ***Government aid for tuition?***

No definite policy of the Federal Government has yet been announced nor have appropriations been made, but there is a general belief that college students on the accelerated plan will be eligible for some form of financial assistance to offset the loss of earnings from summer employment. It is generally assumed now that such aid will not be in excess of the tuition for the summer term. It may be less. It is also not yet known whether this will be an outright grant or on an employment basis.

Students, however, should remember that the *total cost* of their undergraduate education will certainly not be increased because the three summer terms for entering freshmen will be the equivalent of one full year of ordinary college expenses. The only difference is that

the student will have less money available if he has planned to depend upon summer earnings for part of his total college financing. Students will reach employment a year earlier. They should have considerable reduction of non-college costs by about one-fourth. Room rent has been reduced $5 a term.

10. ***Employment in the summer session?***

There will be opportunity for part-time employment on the campus and in the community.

However, you should bear in mind that during the summer term twelve weeks of study are being covered in ten weeks. You will concentrate on your college courses for six full days each week. The two weeks saved by this concentration will permit you two more weeks of full-time remunerative employment during the vacation period. This should more than offset the loss of part-time employment which you might secure during the weeks of intensive study.

All requests for employment should be made directly to John Pond, director of student employment.

National Youth Administration funds may be available for needy students during the summer session.

11. ***Plans beyond 1943?***

Dates and specifications are announced herein through the end of the regular school year in May, 1943. It is the College policy that for the next three years the accelerated program will be carried on as announced in this pamphlet. The College will probably revert to its normal schedule as soon as possible after the close of the war. Government regulations may also alter some of the announced plans of all colleges.

12. ***Are any new "defense" courses being added?***

The College does not attempt to duplicate the work of engineering schools which are obviously engaged in special technical work of military significance. For the same reason, engineering schools and other technical schools are not attempting to duplicate the work of colleges like Springfield.

In view of the fact that men entering military services need adequate backgrounds in mathematics and physics if they wish to qualify for certain forms of service, the College has (a) strengthened its offerings in *Mathematics* and *Physics,* (b) shifted the requirements of other courses to make it possible for more students to elect these courses, (c) made some minor changes in the courses in *Chemistry.*

The Department of History and Government has rearranged its courses to provide students with a more adequate understanding of the present conflict and the kind of social order we will want to help develop after the war. Springfield College has always stressed the study of history as a foundation for understanding the world in which we now live. The courses in *History of Civilization* and *History of Modern Europe* are considered fundamental courses for all students. Courses in government, American history, and principles of democracy will be emphasized and opportunities for study will be increased.

13. ***How about Physical Fitness programs?***

The government has asked colleges to emphasize *Physical Fitness.* Springfield College has always been at the forefront in programs of physical fitness. The only changes necessary in health and physical education are those intended to prepare more students, more quickly, for professional leadership in physical fitness programs in schools, social agencies, and in military services. The College, as always, will emphasize personalized programs for physical fitness.

14. ***How about the athletic program?***

Obviously there will be changes in the athletic program because of the concentrated work of the proposed scholastic schedule and because of the shortening of the year.

However, it will be the policy of the College to maintain the athletic schedules as completely as possible. This College has insisted for years that athletic participation is a normal way of developing physical fitness and social maturity, and of educating young men for leadership in health and physical education. At Springfield College athletic participation forms the laboratory of the professional courses in Health and Physical Education.

Apart from the necessary role of athletics in the professional education of the student, the College also maintains that it should continue regularly with its interscholastic activities as a contribution to the morale of the college students and the spectators who attend the games. It is also anticipated that some athletic games during the next few years will be played at army camps and naval bases, not only with other colleges for the entertainment of the men in service but also with teams representing the services.

The "Freshman Rule," which forbids the use of freshmen on varsity teams, will be eliminated for the next school year and perhaps for the duration of the war. In its athletic planning Springfield College will do whatever is considered wisest by the various athletic leagues of which it is a member.

15. ***Does Springfield have a C.A.A. course?***

For three years the College has conducted pilot training courses under the auspices of the Civil Aeronautics Authority. Maximum classes have been conducted in both the primary and secondary courses. Flight training is provided at the Springfield Airport. College credit is given for the ground course through the physics department.

About forty men a year have been accommodated. Students in the course *must* declare their willingness to enter military air services.

16. ***Does Springfield have an R.O.T.C.?***

No. Furthermore, the government has announced that there will be no expansion of R.O.T.C. units in colleges and universities.

The numerous men who want to attend a college which does not have an R.O.T.C., but nevertheless want to become eligible for officerships in the Army when they are called into military service, should recognize that the policy of the United States Army is to select approximately three-fourths of its candidates for the Officers Candidates Schools from the enlisted and selective service men. The effect of this is that, regardless of whether a student has attended a school with an R.O.T.C. or not, he has a good chance at the end of his period of basic training to apply for and receive special training as an officer.

The government has indicated that intelligence, devotion to duty, physical fitness and ability, leadership qualities, and character are the main variables to be considered. The actual number of college credits and the degrees which one holds are of less importance than these more fundamental qualifications. The implication of this is that *you should select your college primarily in terms of your long-time educational plans. Develop your personal qualifications* in the college which can best serve your total cultural-vocational needs.

17. ***Are students accepted in the reserve classification?***

At the present time Springfield undergraduates are receiving their proportional share of appointments in special naval classifications: V-5, aviation cadets—permitting completion of the current year before reporting to duty; V-7, deck officers—permitting completion of college course for degree before reporting for duty; Candidates Class for Commission in the Marine Reserve—permitting completion of college course for degree before reporting for duty.

The Navy has just announced a new program of enlistment for college men between the ages of 17 and 19. This V-1 Program provides that the student will complete two years of college at the end of which period three possible alternatives will be opened on the basis of further examinations. The student can be transferred

to V-7, and be permitted to complete his study for the bachelor's degree before reporting for active duty. He can be assigned to V-5, aviation cadet, and be called up at once or as soon as he is needed. Those failing to meet V-7 or V-5 standards after two years of study will be assigned to regular naval training stations as seamen, second class. By the time the student is 20 he has a fine chance to become commissioned and if he does not become commissioned he has at least an equivalent rating to what he would have if he enlisted then or became inducted under Selective Service. Students who have been accepted by the Navy as V-1 men will be required to study certain subjects, such as mathematics, physics, and physical training. These are required or elective courses for students in divisions of this College.

Students entering military services by induction through Selective Service are reporting a high percentage of assignments to specialized duties in their fields of college specialization. It is assumed that the military officials will continue to select men for specialized services in keeping with their technical training.

The College cannot predict changes in enlistment procedures and policies. At present it appears that Springfield men are needed for professional work and are being recognized by military and naval officials if they merit appointment.

18. ***Do Springfield students obtain occupational deferment?***

The Selective Service Act and certain "directives" issued by the National Headquarters specify that certain classes of college and university students are to be considered for deferment. These lists have mentioned some of the fields for which Springfield prepares.

The more general principle is that men are to be deferred who are judged by their Selective Service Boards as "necessary to activities, the maintenance of which is essential to the war production program and the *national health, safety,* and *interest.*"

The interpretation of this last clause is individual. Different boards may place different interpretations on given vocational groups in the light of local situations. There apparently can and will be no blanket coverage by all the Boards of any groups of college "majors" other than those in branches of engineering, science, medicine, and dentistry.

Recently, however, the National Headquarters of the Selective Service System issued a memorandum calling attention to the fact that there is a distinct shortage in certain classes of high school teachers, namely, in vocational education, industrial arts, vocational agriculture, *physical education for men,* and to a lesser degree in *physical science* and *mathematics.*

The order was summarized with the sentence "The obligation of an individual for training and service should be carefully weighed against the national interest involved in the maintenance of the level of secondary education."

The interpretation of this memorandum is still a local matter. The report is reviewed here to show that there is a demand for Health and Physical Education teachers today, that they should be deferred when there is acute need for them in a given place, and that men studying and serving in this field are officially recognized as being important to the national health, safety, and interest.

19. ***What will the College do if I am called into service?***

If you withdraw from the College because you are called by your Selective Service Board or if you enlist in military service, you will be refunded your tuition for the term in which you are then registered. Room rent will be prorated.

You will be given an honorable dismissal by the Dean and will be eligible for re-entry at a later date.

You will be "followed" by the College by means of bulletins, the student paper and special communications. You will still be considered a Springfield student.

A word about the way the College handles requests for deferment is in order. When a student wishes to have the College support his appeal for deferment until the end of the current year or until graduation, he confers with the Dean. The Dean goes over his record and, in consultation with the divisional Directors and other interested faculty members, determines whether the College can honestly support the man's request for deferment. If he is to be supported, the Dean forwards the necessary information and credentials to the Chairman of the student's Selective Service Board.

Furthermore, the Dean has extensive information concerning all branches of the services. Before a student is inducted as a selectee he may desire to enlist in a preferred branch. The Dean will counsel with him concerning such opportunities and procedures.

This is a description of present facts and practices. The College does not know whether enlistments will continue to be permitted nor whether subsequent directives of the National Headquarters of the Selective Service System will alter the relation of students to the colleges they attend.

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"Next to active military service itself, there is no higher opportunity for serving our country than helping youth to carry on in their efforts to mold themselves physically strong, mentally awake and morally straight."—From a recent address by President Roosevelt on the occasion of the fiftieth anniversary of the Boy Scouts.

New Emphasis Placed On Exploratory Program

OCCASIONALLY alumni and friends of the College write in to ask whether it is appropriate for them to recommend young men to this College who are not sure of their educational and vocational objectives and who have been thinking of Springfield as a College which they could attend during the process of making their long-range decision regarding certain fields of specialized study.

Springfield College does not sponsor a formal "junior college" program, but it does have a program of courses which will serve the same purpose and which also provides a student with an opportunity to continue on to graduation in the College if this is where he belongs.

For these young men, Springfield College recommends the following program of ***Educational and Vocational Exploration.***

• • • Two years of solid ***liberal arts and sciences*** (English, two years; History, Sociology, Economics, Psychology, Biblical Literature, Biology, another Science or Mathematics, one year each; plus certain electives).

• • • A comprehensive program of ***educational and vocational testing and guidance,*** including remedial work to correct special academic and personal disabilities.

• • • A comprehensive program in ***physical fitness,*** including testing and remedial work, thorough training in personal hygiene, participation in competitive athletics, and development of a wide variety of recreational and sports skills which will have "carry-over" value to later life.

• • • ***Continuation*** in the College for upper-level work leading to a degree—if the student can be served best by the offerings of Springfield College; ***Transfer*** to some other college—if the student can obtain a program of greater service to him in another college. The College recognizes its curricular specialization and makes no attempt to "hold" any student whose interest and abilities it cannot properly serve. These transfers may be made to liberal or to professional colleges and may occur at the end of the first, second, or third year without loss of credit, except in those cases where students make radical changes in their educational plans.

To College with a Purpose

Springfield College offers several standard courses which are high grade and professionally well organized. Its faculty is exceptionally well trained and competent and it has been greatly strengthened in the past few years, especially in the liberal arts and sciences. *Springfield* emphasizes programs of study which are culturally sound, socially significant, and vocationally purposeful.

1. ***Health and Physical Education***—for teaching, coaching, and administration in schools and colleges. Each student in this field also prepares for teaching an academic subject in any one of the various social sciences and natural sciences.

2. ***Health and Physical Education***—for leadership and administration in social agencies, especially the Young Men's Christian Associations.

3. ***Recreation***—for program directors and executives in private and public recreational centers. A special pamphlet describing this field of study is now available on request. Majors in recreation may emphasize either the skill fields (such as physical education or music and art) or group work administration in social agencies.

4. ***Group Work***—for program directors and executives in agencies devoted to character and citizenship, such as the Young Men's Christian Associations, Boys' Clubs of America, Boy Scouts of America, settlements, churches, adult education centers. These social agencies stress informal education which supplements the formal education of the public schools.

5. ***Religious Education and Pre-theological Education***—for directors of church schools, youth programs, and allied social and recreational activities under church auspices, as well as preparation for graduate study in schools of theology and full-time service in the ministry.

6. ***Counseling and Guidance***—for educational, vocational, and personal counselors and technical experts in schools and social agencies, including preparation for working with delinquents and in correctional institutions.

7. ***Teacher Education***—for preparation as teachers in secondary schools:

   a. *Social Science* (economics, government, history, sociology, separately or together);
   b. *Natural Science* (biology, chemistry, physics, separately or together);
   c. Social Science or Natural Science *combined* with substantial "minors" in Health and Physical Education, Counseling and Guidance, Recreation, or Group Work.

8. ***Pre-Medical and Pre-Dental Education*** (concentration in sciences)—leading to entrance into approved medical and dental colleges with which *Springfield College* has established relationships through successful achievements of its graduates.

9. ***Pre-Business Administration***—for men who wish to enter *graduate* schools of Business Administration, after a thorough grounding in the social sciences in a two to four year undergraduate program.

10. ***Academic*** *(Non-professional) Majors*—in Biological Science, Physical Science (physics and chemistry), English, Social Sciences (economics, government, history, sociology), Psychology, Religion and Philosophy—leading to *graduate* study for a variety of professional and scholarly careers.

Youth and the Future

(Continued from Page 2)

6. ***Delinquency and youthful crimes.*** Through desirable social welfare there must be reduction of deficiencies in the social environment which produces delinquency and in addition there must be intelligent, socially-minded care of youth who have become enmeshed in the law.

7. ***Citizenship.*** "Democracy's ultimate safeguard is the enlightened conscience of the citizen. . . . It must depend upon the moral integrity of the people." The "Ways of Democracy" must be learned through books, through discussion, by example, and with opportunity for practice. Emotional appreciation and acceptance of the origins and strength of our nation, its richness of material resources, its variegated peoples, etc., are acquired virtues.

Dorothy Canfield Fisher has contributed a final chapter, entitled "Meaning for Life," which catches up the recurring themes of the Report and interprets their spiritual significance. The prime need of American youth is for spiritual orientation.

Alumni—friends of Springfield—students—reread this sketchy review, read the whole volume. Here is something exciting. Here is validation of the Springfield College purpose and program. Here is a new demonstration of our educational charter. *Youth and the Future* tells us what our job is and gives positive suggestions as to how we can go about accomplishing it. It tells us how to win the war and win the peace.

Each of us has a duty in making the war-time Springfield a greater and more useful Springfield. Each of us has an obligation to help make Springfield College a real servant of youth in the world through the impact it makes upon the young men who tread its campus in the process of preparing themselves for "Careers in Youth Leadership."