


## THE TEACHING OF TACTICS

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I.

In presenting through these pages suggestions for the legitimate use of tactics or order movements, I am fully aware that I am not offering anything original or new. In fact, I am attempting only to revive or reinstate a phase of the day's order, which by many has been relegated to the shelf, and by others is thought to be included in military drill. Tactics, as such, have been discontinued because of their insignificance in value when measured in relation to the other phases of a gymnastic lesson. This discontinuation of tactics as a distinctive feature of the lesson is justifiable, when the physiological test, only, is applied; also, the place now assigned tactics, that of serving merely as a means of handling the class, is correct, when weighed in the above balance. All the results we may obtain from the practice of tactics, such as erect carriage, correct walk, etc., we get in practically every other phase of a lesson, much more pronounced and effective. No special place need therefore be assigned to tactics, for the purpose of the above results, and only the applied tactics, that is, handling of the class, need be considered.

It is the usual trend in everything where reform is desired, to have one extreme followed through reaction by another. It is revolution rather than evolution. With the case at hand, the one extreme consisted of the endless and aimless marching around in the gymnasium, forming every conceivable design by crossing and recrossing, now in single file, now in twos; the forming of stars and circles moving in the same and in opposite direction, and many other figures, executed usually with slouchy carriage and slow gait. All of this was measured off carefully by counts, each first of four, eight or sixteen counts denoting the beginning of a new evolution, and woe to the one who counted wrong. We have seen many of these precisely executed marching drills, and I, for one, will not deny that they are effective and picturesque. Gymnasium exhibitions were not, and many are not now considered complete without some complicated marching drill. At gfmnastic festivals we have seen faultless marching drills executed by strong, husky looking men, each one counting for himself, and the instructor, the creator of the maze, counting loud, emphasizing each sixteenth count. These same drills, boys of ten or twelve could have executed with the same success, had they been given the same, or possibly even a less amount of time, to memorize the changes. It certainly is not a great achievement on the part of men. There is a troupe of men known
as the Zouaves, who appear on the vaudeville stage, and who go through an elaborate drill in a continued trot. All changes are signaled by means of a whistle, and here, as there, the aim is, effect. These extremes of tactics have happily disappeared from the legitimate gymnastic period. Unfortunately, however, the extreme reaction followed, and without an investigating second thought, tactics as a whole were tabooed. It should have occurred to some, that in this extreme of figure walking, we had simply gone astray in search for effect and applause. Besides yielding to the just criticism, an effort should have been made to right the wrong by investigating the method of procedure. We might for a like reason discard all the floor exercises, that is, free, dumb-bell and wand exercises, because here, too, all drillform of exercise, the teaching of which still abounds, must certainly be condemned, at least in so far as educational gymnastics are concerned. But here we were wiser and arrived at a happy solution, which yields excellent results. Here the change was an evolutionary one instead of revolutionary.

I maintain that there is in the performance of tactics, when taught from a viewpoint different from the above, that is, merely the physical, a very important educational factor, one which may be considered peculiar to tactics. The correct interpretation and immediate execution of a definite command by a class under instruction, necessitates a function of the individual mind, highly essential in practically all phases of life. Such interpretation and prompt execution compels the strictest of attention, what Dr. Dearborn calls "will attention." The presence of it signifies a mental discipline which is fundamental in all educational pursuits. The degree of voluntary attention in an individual determines in a large measure his extent of intellect. It is this attention which makes possible the power of concentration upon a task, it prompts the self help which leads to success. Any means, therefore, which we may give to education, possessing as its chief characteristics the training of this paramount mind quality, should be considered as a desirable adjunct to education. I cannot conceive of any other one factor in education which obtains a higher degree of undivided attention of large numbers, than tactics, when taught by one who has this result in mind only. The spellbinder on the lecture platform, after all, has the absolute attention of only those who have a special interest in and understanding for the subject under consideration; the symphony orchestra with its excellent performance holds hundreds in this absolute attention, but it cannot prevent others from mind wandering, manifested usually by reading of the program or looking at the watch or other signs of utter inattention while the orchestra is playing. How much more difficult must it be, then, to retain attention in the ordinary classroom, where the subjects taught are less to the taste of the young pupil than the lecture or the symphony is to the adult listener! Power of atten-
tion, I believe, can be actually acquired and developed by training, and correct teaching of tactics does render the mind more capable of paying close attention. Furthermore, it is more than probable that this training results in a marked diminution of reaction time. The determining of the reaction time in an individual is considered one of the most efficient mind tests which psychologists employ in ascertaining vocational tendencies in youths. While there is in each individual a natural and inherent reaction time, we know that by training along definite lines this responsiveness may be increased. Highly organized games, wrestling, fencing, boxing, etc., may well be taken as expedients here in point. In the mere fact that in tactics an individual's momentary lack of attention is at once manifested by failure to respond, and also in the fact that the frequent dragging behind suggests to the offender a slower mind than that of others, lies a cause for self-discipline, which seldom fails, and which usually results in an effort to force attention. If in other classroom teaching it were possible to detect thus the inattention of individual pupils, the results might be (as in tactics) more permanence in attention. I would like here, in quoting from Dr. Dearborn, to call attention to his essay, "Attention: Certain of its aspects and a few of its relations to Physical Education," which appeared in The Physical Education Review, and may be had in monograph form. It is a very valuable work for the practical teacher in physical education, and deserves careful study because of its psycho-pedagogical significance. On page eleven we read: "As for voluntary attention, we see in its various aspects for physical education the part of our analysis best fitted for practical application, both for the immediate uses of motor training, and for the purposes of general education. By the term, 'Understanding Attention,' it is intended to suggest that some forms of gymnasium and field work require chiefly attention to understand what is heard or otherwise signaled, examples in the command exercises and notably in marching tactics. In these exercises, an error is so conspicuous, and to an extent shameful, that the incentive to continuous, alert and concentrated attention is at its maximum. The degree of bodily activity is about that for the perfection of attention to a stimulus outside the body, neither too difficult nor too easy, too strenuous nor too indolent. Scarcely anywhere else is there in use a means better adapted to train the attention than such tactics. The educational, practical problem is how to adapt and extend this easily sectied concentrated attention, and how to make it a habit while the child's psychomotor brain apparatus is still plastic, and easily interested. The present writer believes that here is a chance to make a substantial connection between mental power and 'physical exercise,' to establish a preëminently important educational habit. This kind of attention required in difficult marching tactics is an ideal
kind for almost every life pursuit-an intensive, alert, understanding attention of a trained organism at the instant command of the more or less subconscious will."

The object, then, for urging the continued use of tactics is for this purpose entirely, and not to restore it in its former and faulty way of teaching. I have taught tactics along these lines for a number of years, both at the Sargent school and the Harvard summer school, and have become more and more convinced of the effectiveness of that phase of our work by the results obtained. Not only are the students rendered more alert and receptive for other duties required of them, but they also receive a degree of satisfaction from their "doing," which keeps their minds on edge every second of the short period devoted to tactics. They thoroughly enjoy this demand upon close attention, and frequently ask for continuation at the close of such a period, a sign that they do not feel strained. It is a common occurrence that graduates or former students of the summer school who come to visit Harvard for a day in the summer, ask to join the tactics class for that period, a privilege which is gladly granted. They evidently recall the satisfaction once experienced, and like to test their mind as to its alertness. In every case they were at once at home and responded correctly without hesitation, showing that it is a quality which carries over.

I must state here that I emphasize to all teachers most strongly, that tactics must not be considered as a physically developmental performance, and that in order to obtain the desired other result, that is, increased power for voluntary attention and general alertness, they themselves must reach a degree of efficiency in accurate commanding, which in return may call forth a corresponding prompt response. It has been my experience that the average student of physical education has more difficulty in mastering the teaching of tactics than of the other phases; also that those who become efficient in this branch are usually excellent teachers in general; the training in the other divisions having been equally efficient. I have been just as emphatic in cautioning them that the time allotted to such tactics should not exceed five or seven minutes in a forty-five minute period, but that those minutes should mean a rapid fire of familiar commands, with some time spent on teaching new ones. This precaution is taken because of the concentrated mind work required, which it would be unwise to prolong over a longer space of time, since the mind is and should be called upon in a similar but less intent way in the remainder of the day's lesson. In the summer school we see it repeatedly illustrated that the beginning in this training should be made in the elementary schools, and not be omitted for that very same reason for which we should want it to be a part of the educational scheme, namely, that it does tax the mind. Summer students taking the first year tactics, even
though they largely represent professional teachers of gymnastics, struggle to interpret correctly and execute promptly the most simple commands. They are slow to react and indefinite in sense of direction, in spite of rigid attention, which shows that they are past the plastic age. These beginners' classes are always large and they all stick to it faithfully in spite of many embarrassing failures. In my opinion, therefore, the omission of tactics in school gymnastics, especially where there is a gymnasium, is a decided loss to the pupil.

There is a marked difference between gymnastic tactics and military tactics, in aim as well as in practice. Military tactics are designed chiefly for strategic purposes. To train the squad, company, regiment or even larger bodies to change front in the shortest possible time is their object, and it suffices to have just one way for bringing about the desired change. The more military tactics have been revised and improved in recent years for specific military purposes, the less suitable have they become for our use. If we single out those commands which are feasible in the average sized gymnasium, we would retain so few that they might easily be mastered in a very short time. This would mean a repetition of the same material throughout the entire school life, and would become merely an automatic performance, void of all significance, except as applied to military tactics. That the adoption or continuation of so limited a scope cannot be defended, may again be suggested by a parallel. Why not also adopt the setting up drill of the army regulation, or the "Daily Dozen," and let it take the place of our now graded and varied exercises in the school? Another perhaps less important difference is to be found in the commands themselves. The military commands retained of those feasible evolutions may be all right, but still in our striving for a logical terminology we should include the commands for tactics, especially when gymnastic tactics cover a wider field. As far as possible the same fundamental movements should be called by the same name in whatever form they may appear. As an illustration: The quarter turn of the individual when standing still is termed either left or right face, but the moment the individual is in motion, that is, marching, the military command no longer calls this same movement facing, but by the left or right flank; or again the half turn is called about face when standing still, and to the rear march, when marching. Why not for our school purpose call the movements by the same name as long as they are similar? There are other instances of the same nature. I believe that here, as in our other floor work, commands should be as nearly self-explanatory as possible, and toward that end a good deal of creative work is still to be done. In the practical suggestions which are to follow will be found in the margin the various commands used, with the preferred one at the top. Many of these may not seem acceptable, éspecially where long custom has made the use of
others habitual. I may single out as an example the command: Dress-Right, instead of Right-Dress. I have found, and others must have likewise, that the command Right-Dress is frequently taken by the class for Right-Face. This because both preparatory commands are exactly alike, and the commands of execution, both given loud and with raised voice, sound very much alike. Hence this reversion of words, which has done away with that misinterpretation. While the correct giving and division of commands is generally understood, emphasized, and insisted on, I want to lay special stress upon it in connection with teaching tactics for this special purpose, since everything depends upon the accurate and explicit command. It is not enough to simply observe a pause between the two parts of the command, but the pause should be adjusted in length to the complexity of the desired evolution. If this is borne in mind, and the habit of speaking the preparatory command in conversational tone is acquired in addition, commanding will become very much easier. There need be no marked pause and sometimes should be none between a command of execution and the next preparatory command. Once the command of execution has been given, the mind has discharged its duty and is prepared to work out the next problem, while the former is being carried out by the class. For example: Form Fours left obliqueMarch Fours quarter wheel left-March! Just as the first formation is finished, which is on the fourth count, the command, March! for the next, falls. Combining both preparatory commands into one, is not, as some hold, the same thing, for in this the second formation is memorized by the pupils, while in the other it depends upon the quick response of the mind. It is essential in teaching tactics that fundamentals are re-used by combining them with the new formations, as this gives rise to new coördinations. An example will serve to make this clear: The class is in flank formation and the command Form Fours, either Left or Right oblique has been newly taught. Now combine this with facings. Right about face and form Fours left oblique-March! The relative position having been changed suddenly by the facing, the formation requires a quick sense of orientation. That the teacher himself has an important part in such instruction is obvious; also, that in order to teach, he himself must first be taught. It is a great satisfaction, however, to feel master of such a situation and have a class respond readily. Commanding a class in motion is infinitely more difficult than when standing still. Here an ill-timed command means confusion. It is again the well-spaced command which prevents this. Given, a large class marching in a front column of fours, continuing column left at the corners; the class being large it must for some time march in right angles, that is, part on the long, part on the short side of the gymnasium. The desired command is, without coming to a halt: Fours quarter wheel left
-March! which will result in a front line marching across the gymnasium. To wait and give the command after all are on the long side of the room, would bring the executionary command after the first four had already turned the next corner, and thus render the execution impossible, or end in collision, also if the command had been given before the last four had reached the proper place. Thus the command of preparation should be given long before the first four reach the end of the gymnasium, and the last command sung out just as the last four swing into place. Practically all of the evolutions may and should be applied in the handling of the class throughout the remainder of the day's lesson. All the various formations lend themselves as so many ways of opening order for floor work. There is no reason why a class should have one set way of opening order, or still worse, use foot marks. Thus, tactics lend themselves admirably for training purposes throughout the school life. It has its beginning in the first gymnastic lesson and is progressively arranged through the last year of high school. If Mr. Stecher's book on tactics, written a good many years ago, were not out of print, I would not undertake to include practical material in these articles. There is no intention to exhaust the legitimate possibilities; this is left to the inventive mind of the teacher. No arbitrary limit can be set here any more than in other phases of a Physical Education program.

## II.

## Definitions.

Fall-In! Is the command given to bring a number of individuals who are at large into an organized formation.
Break-Rank! Is the command which orders an organized formation to be at large.
Class-Attention! In Position-Stand! Atten-tion! In response to any one of these commands a conscious position of exaggerated good carriage is assumed. This position may be defined as follows: Heels together, feet slightly turned outward to a comfortable angle, knees together and straight, hips back, chest prominent, head erect with chin slightly drawn in, arms hanging naturally at the side with palms inward, and thumbs behind the median line of the thigh. The body weight should be resting on the ball of the foot.
In Place-Rest! A definite relaxation from the position of attention.
Class-At Ease! A self-chosen relaxed position.

Dress. A command given to adjust the individuals to a straight alignment from end to end when in front formation, and to close order.
Guide. A command given only for straight alignment, and may therefore be given a class in open order.
Close Order. Where the individuals are in facing distance.
Open Order. Where the individuals are in more than facing distance.
Facing. A change of front of an individual in any direction, which may be an $1 / 8,1 / 4,3 / 8$ or $1 / 2$ turn.
Wheeling. A change of front of a rank or line in any direction, which may be $1 / 4,1 / 2,3 / 4$, or $4-4$ turn.
Front Rank. A formation where the individuals are placed beside each other, the ends being designated as right and left ends or leaders.
Flank Rank. A formation where the individuals are placed behind each other, the ends being known as first and last.
Front Circle. A circular formation where the individuals are beside each other.
Flank Circle. A circular formation where the individuals are behind each other.
Front Line. A formation where two or more front ranks are placed beside each other.
Flank Line. A formation where two or more flank ranks are placed behind each other.
Front Column. A formation where two or more front ranks are behind each other.
Flank Column. A formation where two or more flank ranks are beside each other.

## Rules and Methods of Teaching.

Fall-In! This command issued to a class of beginners, especially children, will not meet with a correct interpretation the first time. The meaning should be gained by doing. Select the shortest one and place him at one end of the room and help to arrange the others according to height on his left. All having thus been arranged, instruct them to notice beside whom they stand, and have them occupy that same place whenever that command is given, and do so as quickly as possible.
Break-Rank! Now have them again run at large in response to the command Break-Rank! which, with a few suggestions, will be readily understood. Repeat these two commands in alternation several times so that in future lessons they will be understood and executed promptly.

Class-Attention! In Position-Stand! Atten-tion! The position described under the definition of the command is strictly adhered to, and explicit reminders of the various points of importance must be made frequently. Attention can not be called often enough to erect carriage. Suggestions such as head back, shoulders back, make yourself as tall as you can, chest prominent, etc., will do a great deal of good. This position should always be held when standing still, unless a relaxing command has been given in a definite way. It is a mistake to hold a class too long in attention, as this usually results in some assuming a position of ease without command, which many times is the habitual one.
In Place-Rest! We may get the rest position by stepping sideward, with either foot, thus dividing the weight equally, or by stepping forward or backward with either foot, the weight always resting on the backward foot. Where the use of only one form is preferred, the one first mentioned is the one which is safest, because of the equal distribution of the weight. Where the other forms are used it is essential that the foot upon which the resting is to occur be included in the command, also that the same foot is not always used. Thus: On the right foot in place-rest!

Class-At Ease! When a longer rest seems advisable after a strenuous period of work, this command should be given, which permits of any easy, comfortable position, without retaining the attention, which should be retained in the former command, as general corrections of posture and movement are best made then.

Dress-Right! (Left) Right (Left)-Dress! All excepting the right (left) end turn the head toward the right (left) and adjust themselves in such a way, that they can see at least the third one on their right (left), without leaning forward. The left arm is bent. The hand placed on the hip with the head up. The elbow should be straight to the side.

Front! When the class has been thus adjusted, the command Front! is given, whereupon the heads are again turned to the front. The teacher should place himself at the end toward which the class is dressing and see that a straight line results. In teaching dressing to beginners it is well to repeat the command a number of times for practice. This may be done by having the end one take one or more steps either forward or backward, and have the class again dress on him.

Guide Right! (Left) is used when a class is marching and also when in open order. In the latter case the spaces are retained and only the ranks straightened. When a front line is very long the guiding for the ends is toward the center and for the center outward.
Cover! Is used for the adjustment of flank formations and in such a way, that the individuals stand directly behind each other, covering each other's figure, allowing for facing distance. This may be tested by the length of the forearm; the elbow is at the hip with forearm raised forward.
Left (Right)-Face! While there are three distinct methods of facing, each of which has something in its favor, the one known as the heel and toe facing is the one most generally used, and will be mainly considered here. The command involves a quarter turn, which is executed on the heel of the foot corresponding to the direction toward which the turn is to be made, and is assisted by the ball of the opposite foot. The combination of this toe raising of the one, and the heel raising of the other foot, may well serve as a preliminary exercise to the facing, which again should be divided into two movements, the first being the turn as described above, leaving the assisting foot behind, and locking of the heels on the second count. Gradually the two movements are to be drawn together to a snappy execution. In the other methods alluded to, the heels in the one are kept touching, the turn being made on one, so that the body practically balances during the turn on the edge of the heel. In the other facing, which is only little known, the turn is made upon the ball of one foot, assisted by the other. The left turn is on the right foot, the right on the left. The advantage of this facing is that the weight of the body remains forward on the ball of the foot, while in the other forms the weight has first to be shifted to the heels.
Left (Right) About-Face! The same rule and method is applied t- this next command which involves a half turn, and
Half Left (Right)-Face! also of facings of eighth turns. The commands remain the same whether a class is marching, marking time or standing still, only the execution differs. In marching, the command of execution-Face! in either of the facings, is given as the foot corresponding to the direction of the turn strikes the floor, the other foot advances once more, and then the turn follows. In the quarter turns the facing and stepping off in the new direction come on the same count (the second), while in
the half turns the facing only occurs on the second count, and the rear foot steps forward in the new direction on the third count. The turn in the latter case is made upon both feet with raised heels. It is well to analyze the movement into two or three parts respectively, holding each count until finally the command as a whole is executed. For beginners four counts may at first be used for the about facings.
Left (Right) Face and-Halt! Left (Right) About-Halt! The marching class is brought to a standstill by these commands after the facing. The foot instead of stepping off in the new direction as above is brought to the other heel sharply.
Mark Time-Mark! In Place-March! In gymnastics this is a definite exercise, not merely a movement of the feet or knees for the purpose of retaining the rhythm. There are several methods of performance. One is with knee raising forward, toes pointing downward. The other is with leg raising forward, foot extended in line with the leg. The former has the advantage of keeping the weight forward on the ball of the foot, and is a more vigorous movement, while the latter is perhaps more graceful in appearance.
Forward-March! The left foot steps off first in all marching except sideward right. The placing of the foot on the floor is firm, the outer edge of the foot striking first with a rolling inward on the whole foot following as the weight of the body falls forward. While the foot should be extended, there is no pronounced toe touching with a falling backward on the heel, a form which used to be practiced entirely. Marching must be a conscious effort and should not be confounded with walking. Thus the knees should experience a forcible extension, the body be consciously correct, with arms swinging naturally, and the relation of the individual to the class be strictly observed.
Backward-March! In backward marching it is but natural that the ball of the foot strike first, with heel lalling after.
Sideward Left (Right)-March! As an exercise, sideward marching should only be practiced from flank formations. Where it is necessary to move a class which is in front formation sideward, the feet should be ordered close together, and the moving sideward be a sliding of the feet rather than a stepping, the latter frequently resulting in a stepping on each other's feet. In sideward marching the feet are extended in the stepping off as well as in the closing step.

Class-Halt! A class marching is brought to a standstill only by the command, Halt! so that any other command, designating a change of direction or new formation, merely interferes with the marching of the class for the length of time required to execute that particular marching evolution, after which the marching is resumed without further command. It is important that this is insisted upon. In marching forward or backward the executionary command may be given on either foot, allowance to be made for two counts in coming to the halt. A class marking time may be brought to a halt by allowing only one count after the command. In marching sideward the Halt! comes on the right foot when going left, and on the left foot when going right. Two counts are required.
Any given number of steps Forward (Backward)-March! The execution of this command requires one more count than steps. Thus, one step two counts, five steps six counts, etc.
Any given number of steps Sideward Left (Right)-March! This takes double the number of counts than steps. One step two counts, three steps six counts, etc. A great number of combinations of steps and facings are now possible, and lend themselves for school room use. The stepping may either precede the facing or, vice versa, it may be sideward with the facing in the same or opposite direction, etc.
From right to left count (any given number)-Count! This command is given to a front rank for the purpose of
A. dividing it into smaller ranks. The right end begins and speaks his number to the second one, and so on to the last one on the left. On the command count! all heads are turned to the right and returned to the front as the number is spoken.
From front to rear count (any given number)-Count! This command is given to a flank rank for the same purpose, the first one begins and speaks his number to the one behind him, and so on to the last one.

Formations for the Individual in a Rank.
For convenience the illustrations here given are for ranks of fours in line, but the commands for, as well as the execution of, the evolutions for any size rank are identically the same, only that the command refers to the entire number instead of the individual ranks. Thus for a front rank the command might be: Form in front of rightMarch! instead of as in the following illustration: Form fours in front of right-March! The number of counts required in either case is equal to the number in the respective ranks. It is advised that these commands be first tried in two's.

## III.

## A. From a Front Line or Front Column of Fours.

Form fours in front of right (left) March! The right (left) end stands still as base, the others in the rank place themselves in front of this base in the same order as they were beside each other. It requires four counts to complete the movement. The left foot always steps off first, and should take a full size step, not simply begin with a stamp as is frequently the case. If the command is given while marching, the base marks time four counts, after which all continue the marching forward in this new formation.
Form fours in front of right (left) and forward-March! The execution as above, only that now the command is from stand still to marching forward, which latter begins by all on the fifth count.
Form fours in rear of right (left)-March! Right (left) by file-March! The same general rule applies as above. The forming is as the command implies, behind the base. Each one, the base excepted, faces a $3 / 8$ turn to the right (left) and at the same time takes the first step forward with the left foot, re-facing again with the last, the closing step.

Forward form fours in rear of right (left)-March! Like the above. The command is given from stand still, the base marches forward while the others turn and follow in rear. If given while marching the base continues marching, the others face right (left) and follow the respective leader.

Form fours on the right (left) passing front-March! The right (left) end again serves as base. The others, independent of each other, pass in front of him and align themselves on his right (left) in the same relative order. The facing necessary after the forming in order to face front again is right (left) respectively. The number of counts necessary is eight, because the distance covered is twice the length of the rank.
Form fours on the right (left) passing front and forwardMarch! The new formation completed, all march forward on the ninth count. The same is the case when the command gives the passing to be in rear. In both of these commands when given while marching the base has eight counts to mark time, after which the marching is resumed in the new formation.

Form fours on the right (left) passing rear-March! The above rule is applied. The passing is behind instead of front as the command implies.
Form fours to the right (left) by evading-March! The left (right) end of each four faces right (left) and marches forward, the next, number two, takes one step forward, faces right (left) and marches forward abreast with the first; number three takes two steps forward, faces right (left) and marches forward abreast with one and two; four takes three steps forward, faces right (left) which brings him abreast with the other three on the fourth count. This is perhaps the most intricate marching evolution and should be well analyzed in teaching. The best method is to take each count separately with separate command. Numbers four, right face, all others one step forward-March! Numbers three, right face, all others one step forward-March! Numbers two, right face, all others one step forward-March! And finally numbers. one, right face, all others one step forward-March! (In this example the ranks were supposedly arranged with numbers one on the right of each four.) When this command is given to a long rank, the new line forming, and the old shorter growing line should always be in right angle with one another. The guiding by all is toward this angle. As a general rule it is well to remember that the execution of this command is started by the end of the rank which is opposite to the direction of formation indicated in the command. The formation being to the right, the left end would start the facing and vice versa.
Form fours to the right (left) by evading and forwardMarch! This new formation completed, all march forward. The command given when marching there is no interruption, the facing being followed at once by marching in that new direction.

## B. From a Flank Line or Flank Column of Fours.

Form fours left (right) oblique-March! The first remain in place, two, three and four march obliquely forward left (right), aligning themselves on the left (right) of the first in the same relative order. Four counts are required for this formation.
Form fours left (right) oblique and forward-March! Like the above, followed by marching forward in this new formation. If the command is given while marching, the first marks time four counts to allow the others to come up to him, when on the fifth count the marching forward is resumed by all.

Form fours in front passing left (right)-March! The first again stands still, two, three and four march forward passing on his left (right) and align in front of him in the same relative order. This takes eight counts.
Form fours in front passing left (right) and forward-March! Like the above, followed by marching forward in this new formation. If given while marching the base marks time eight counts, after which the marching continues by all.
The combinations which are possible here again by using the facings either before or after the formations are obvious, and require quick orientation. Also the combinations of $A$. and $B$. offer new material.

## Evolutions of the Ranks as Units.

Here the sets of fours work together as one in the various alignments.
Fours column left (right)-March! This command is given from flank formation. Each individual set of fours exe-

- cutes column left (right). Thus a flank line may be changed into a flank column of fours, and a flank column of fours into a flank line.
Fours countermarch left (right)-March! As in the above, each set of fours marches independently and as the command implies, in opposite direction. After four counts the flank rank is restored but with each set of fours reversed.
Fours quarter wheel left (right)-March! Squads left (right) -March! From a front formation, either line or column, the left (right) end of each four acts as pivot and the others in straight alignment and close order describe a quarter circle, which takes four counts. It is advisable to connect the individuals in the rank at first so as to give the right conception of this working as a unit. This may be done by connecting the arms or by placing a long wand in their hands. Comparing the wheeling to the swinging of a door on a hinge will also help the beginner.
Fours half wheel left (right) -March! Squads left (right) about-March! Like the above. Eight counts are required. It is well at first to have the finish of the first quarter accented by a stamp.
Fours complete wheel left (right)-March! Like the above. Sixteen counts are necessary. All of these wheelings may be combined with the previous commands. For example: Form fours left oblique and a quarter wheel left-March! or, Quarter wheel left and form fours in front of right-

March! etc. Wheeling is also possible from flank formations but is too slow a performance since the marching is sideward and for this reason it has been omitted here.
Fours form line left (right) oblique-March! Left (right) front into line-March! The first set of fours in a front column of fours is the base, and the remaining sets of fours or ranks align themselves on the left (right) by marching obliquely forward left (right). The command given while marching, the first mark time until all have come into line, after which the marching continues.
Form column of fours in rear of right (left)-March! Right (left) by squads-March! This command given to a front line while marching, the first four continue their marching (first four steps short) the others quarter wheel right (left) and follow the first. This changes the line into a front column.
Form column of fours in front of right (left)-March! The first four is the base and the alignment is in front. When given while marching the first must wait till all have formed in front before the marching continues.
Fours form line on the left (right) quarter wheeling left (right) successively-March! On left (right) into lineMarch! This command may be given either to a front column of fours or a front line. The first or right (left) set of fours respectively executes the first quarter wheel, while the others march forward and wheel in successive order, that is begin to wheel when the preceding four has finished its wheel, and again march forward aligning on the first. The command given while marching will leave the ranks of fours separated in step formation, or what in military tactics is called "echelon" and in German terminology "Staffel." In order to restore alignment, a command Halt! or Mark Time! must be given the first, which in successive order is followed by the remaining ranks. When space permits commands may be given while in this step formation, finally re-establishing the line.
Fours form line to the left (right) by evading-March! This command given to a front line, the right (left) set of fours quarter wheels left (right) and marches forward (behind the old line), while the others march forward and each succeeding set of fours wheels in a like manner, when they will be joined by the new line coming up in rear. The guiding is right when the forming is left and vice versa. (Look up explanation of the command: "Form fours to the right by "evading" as that is the same formation, only for the individual instead of a set of fours.)

As was stated at the outset, it is not the intention to exhaust the field of tactics. The formations and evolutions here chosen seem best fitted to serve the purpose of illustrating the means for obtaining the results above alluded to, especially when presented as has been repeatedly pointed out, that is, by brief, explicit, sharp and well-spaced commands. Tactical exercises which command undivided and independent attention have a place here. For example, in a front line or column in action, issue the command: Uneven numbers about-face! Then a command, About face! for all, and finally, at the proper moment, the command: Even numbers about-face! which will re-establish the original formation. It's practically an exercise emphasizing minding one's own business. Intentionally a number of evolutions usually included in compilations of tactics have been omitted, partly because they do not measure up to the value of others in the purpose here set forth, and partly because they are more or less void of motion. The various wheelings in flank formation, also the wheeling backward, and those where the pivot is not at the ends but somewhere in the middle of the rank, are among those which have been omitted. Where one of these forms is desired in figure marching it will be readily understood by a class trained well in the other, with just a few brief suggestions:

## Suggestions for Applying Tactics.

After formations have been mastered, they may be employed as a substitute for counting off in changing a rank into a line. Instead of counting off we may now give the command to a flank rank: From front to rear form fours left (right) oblique successively-March! After every four counts a new set of four forms, so that the individual ones are to judge quickly their respective number in the rank, while the preceding four is forming. Other commands from either flank or front formations may be used in the same manner, the word "successively" being added to the command, which indicates that one four after the other is formed, and that counting therefore is unnecessary.

When using the formations for opening order it is but necessary to add to the command the words, "into open order." Thus we can open order from the flank line with the command: Form fours left oblique into open order-March! Or from a front line: Form fours in front of right into open order-March! All other commands lend themselves for this use. The distance covered by the individual being double that of the formations executed in close order, the counts are also to be doubled, so that eight counts are now required instead of four. From the foregoing illustrations the commands for close order are self-understood. All formations, in close order as well as into open order, may be commanded to be taken in double time.

Where figure marching is desired for show purposes, it requires merely an application of the above formations, and any design may be executed by a class upon response to familiar commands, which it may be wise to supplement with a few additional suggestions. If we will imagine for the purpose of illustration a front column of sixes. The command: Sixes complete wheel left successively-March! will result in the figure of a star, with as many rays as there are sets of sixes. Each set of sixes will begin to wheel where the first wheeled. While continuing the marching in this figure, the various facings may be brought into service. About facing will reverse the direction of the revolution in the star, the right or left facing will bring the rays marching away from the center, and following this by about facing will again bring them toward the center. In order to change the star into a large circle it is but necessary to have the rays face outward and then give the command: Sixes column left (right) to a circle-March! To change from the circle to the star again the command: Sixes column left (right) toward the center-March! will suffice. In each ray of the star the threes may operate independently: Upon the command: Threes complete wheel outward-March! the outer three will wheel right (left), the inner left (right.) Again the outer three may face about, thus facing in opposite direction from the inner three. The inner may now wheel while the outer march forward in a circle until all join again. In this same formation, each six may wheel around its own center, so that after a half wheel the inner three will be on the outside and the outer on the inside. From these few suggestions it will be obvious that there is no limit to fancy figures and effects, also that such figure marching can only be considered as incidental, but not of sufficient importance to justify special practice of it. The Reigen, also, can only be defended if the various figures used are merely incidental, and the movements, poses, and dancing steps which lead to these figures or are practiced while in those formations, are the main object of the Reigen. The figures here are the artistic setting to graceful movements and æsthetic poses, a conception which our dancing masters have as yet not seen fit to call to their aid. Many a classic dance originally taught and performed in the straight line, moving forward, backward and sideward left and right, has received its finishing touches when arranged by some of our artistic instructors of gymnastics into pleasing and interchanging figures. It is a delightful theme to dwell upon, but it is first the activity, the movement and the pose and then the setting we must have in mind, not the Reigen of old with its pedantic stepping and the occasional turn, void of all life, vigorous movement and grace.

There are a number of marching exercises which, while not directly related to tactics proper, at least not as set forth here, are nevertheless best identified with this part of the day's order.

Some of these have been in service for many years, mainly as an aid in teaching children the keeping of step, and also in the observance of rhythm. The accenting of the first of two, three or four steps, either with or without clapping of hands, are the exercises here referred to. These particular exercises have in recent years experienced considerable elaboration, and have become of special interest in the Dalcroze system of Eurythenics. They are without question a valuable contribution to our work and deserving of careful study. While most of these exercises are intended to be taught to children, they are nevertheless well fitted into the gymnastic lesson of the adult. They develop and require in their progressive stages a definite sense of rhythm and bodily control, both of which are aids in liberating man from himself, by adjusting his movements to space as well as to time. In the following are a few suggestions along these lines, together with such necessary explanatory additions, as will make clear the intentions of these exercises. Each marching step in this method is a plastic manifestation of the quarter note, and by accenting the first of two, three or four steps the two-four, three-four and four-four time is demonstrated and taught. The half note is pictured by holding a step position for two counts, the dotted half note for three, and the whole note by holding it four counts. The shorter note, the eighth, is marked by two running steps placed in the time usually allotted to the step. Thus the triplets are represented by running steps. Corresponding to the movements of the legs are those of the arms, which by a decisive downward striking motion also mark the beat, and the softer intermediate movements the remainder of the measure. The starting position for the arms, either one or both, is the one with arms up but not rigid. In the two-four time the arms beat down on one, and are raised lightly again on two; in the three-four they beat down on one, are carried sideward on two and upward again on three; in the four-four, down on one, bent in front on two, sideward on three and upward again on four. After mastering arm and leg exercises separately the combinations are obvious. The twofour arm exercise would combine with the exercise of stamping the first of two steps or the half note exercise; the three-four arm exercise with the stamp on the first of three steps or the dotted half, and the four-four with the stamp on the first of four or the whole note. Either both arms or one arm with corresponding foot, or opposite arm and foot may be used in progression. For those wishing to go beyond this it will prove an interesting study to delve deeper into the subject of Eurythenics, but far beyond the suggestions here given, it is doubtful whether it would serve our immediate purpose. From these plastic manifestations of musical values a great number of combinations can be derived. They are exceedingly interesting and valuable. Interesting because of their originality and valuable because the coördination is peculiar in itself and because it calls for quick and accurate indi-
vidual interpretation. We may place the two running steps, or eighths, in any one of the four quarters, and get the following exercises:

Two eighths (two running steps) followed by three quarters (three marching steps).

A quarter (one marching step), two eighths (two running steps), and two quarters (two marching steps).
Two quarters (two marching steps), two eighths (two running steps), and one quarter (one marching step).
Three quarters (three marching steps) followed by two eighths (two running steps).
The two running steps should not result in a change step, but must be a run suddenly begun, and just as suddenly interrupted, catching the next marching step with perfect poise.

In combining the quarter, the half and the whole note we gain the following exercises:
Marching in two-four time, that is, holding each step two counts. Marching in four-four time, holding each step four counts. Two quarters followed by a half. A quarter, a half, and again a quarter. Two halfs and a whole. A half, a whole, and again a half. A half, two eighths, and a quarter. A half, a quarter, and two eighths. A quarter, a half, and two eighths, etc., etc.
The half and whole notes are to be held with perfect erect posture and in balance with weight on the forward foot.

In the multiplicity of subject matter, to be sure, lies the danger for the young or ill-trained teacher of selecting at random the material to be taught, instead of it béing prompted by didactic method. If no logic prevails in the teaching of tactics, it will result in the performance of stunts, just as it does in teaching wand, dumb-bell and club drills, or certain tricks on the apparatus. It will be training for demonstrative accomplishment instead of a gradual development toward a closer relation between self and environment, a life in accord with all that is beautiful.

There is but one fair and convincing way of "testing the degree of physical education of an individual or a class, and that is, that the examiner should be a stranger, to whom the examined must interpret problems of coördination in grace, skill, power and alertness. Such a test could not fail to impress the general educator as convincing evidence that he had witnessed a wide range of mind development manifested physically. A teacher who at least keeps the possibility of such a test in mind, will not fall into the rut of drilling mechanically. It may be necessary to suggest finally that the method here advocated is not designed for institutions where the work is to be recreative only, but for institutions of learning, where physical education has been accepted as an integral part of the curriculum and where the objectives are manifold and the various activities involved are considered mediums through which the objectives are gained and not ends in themselves.


