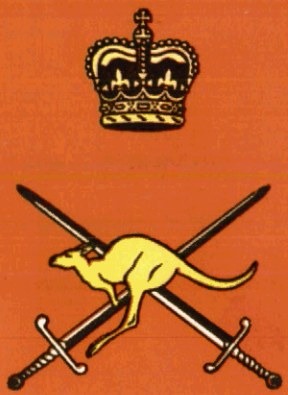
AUSTRALIAN ARMY JOURNAL



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FRONTISPIECE

In the early stages of World War II, and later in New Guinea and Borneo, Matilda tanks were used chiefly in a close infantry support role. Matildas were slow, heavily armoured tanks mounting a 2-pounder gun as their main armament.

Owing to their slow speed, Matildas operated under a great disadvantage on the wide open spaces of the Western Desert. Nevertheless they did some very effective work, particularly in the first Desert campaign, which culminated in the capture of Benghazi and the destruction of the Italian army in Cyrenaica. In this campaign units of Matilda tanks co-operated closely with 6 Australian Division in the capture of Bardia and Tobruk.

AUSTRALIAN ARMY JOURNAL

A Periodical Review of Military Literature

Number 142 March, 1961

CONTENTS

Photo: Australian War Memorial Canberra

Matilda Tanks in the Desert

AUSTRALIAN ARMY JOURNAL

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CLEAR THINKING

Directorate of Military Training

How many never think, who think they do?

EVERY craftsman who sets out to make something must first assemble the necessary materials. Suppose you decide to paint the house on your next leave, and that your wife decides to make a pair of pants for little Jimmy. You will require paint, putty and turpentine, she will require cloth, buttons and thread. Anyone who has attempted these acts of craftsmanship will agree that the results are going to depend on two things—the quality of the materials and the skill with which they are put together. If you buy inferior paint it will flake off or blister or something, no matter how skilfully you apply it. Conversely, if good paint is simply slapped on the result will hardly be very pleasing or durable. Similarly, if your wife makes a bad job of putting together the excellent materials she has assembled, the resulting garment will not be satisfactory, to little Jimmy at any rate.

In the same way an effective piece of thinking depends on good raw material and the skilful use of that material.

The raw material of thought is information. Some of this information we get directly from our own observations; some of it we get indirectly from the observations made by other people. It is important to remember that most of these observations will be coloured by what was in the mind of the observer at the time he made the observation. Two people seldom see the same thing in the same way; their observations are usually conditioned by what is already in their minds. Suppose two travelling companions—a keen young soldier fresh from a tactical course and an artist—pause to look at the countryside. The soldier is apt to appreciate the view in terms of the tactical possibilities of the ground, whereas the artist is likely to give most of his attention to the glorious sunset. If they are later called upon to say what they saw, the soldier will probably describe the landscape in some detail, but will be able to give only a sketchy outline of the sunset. The artist on the other hand will be able to give specific details about the sunset, but will be hazy, perhaps very inaccurate, about details of the landscape which are important to the military mind. This tendency of our observations to be conditioned by something already in our minds accounts for the variations in the evidence of honest witnesses at courts of inquiry.

If we go to the other extreme and

try to accomplish the difficult feat of emptying our minds of all other interests, the probability is that we will not draw any definite impressions from our observation. The practical thing to do is accept the interests already in our minds and to make the necessary allowances for them. We must remember always that it is natural for us to see any view or approach any problem in a particular way, and that it is equally natural, and equally honest, for someone else to approach it in a different way.

It is necessary to remember, therefore, that the raw material of effective thinking, be it the result of direct observation or information garnered from other sources, may not be at all sound. To make sure of its quality we should check it against other evidence.

Testing Information

Much of the information on which we build our thinking comes to us secondhand, and if we are to get a start at all, or even live reasonably tranquil lives, we must accept a great deal of it at face value. If we enter an apparently well-ordered military establishment and see on a door a neat sign reading "Adjutant" we can reasonably expect to find that official inside and not the company cook cutting up a rabbit.

Nevertheless it is important to get into the habit of testing information. The first step is to look at the source of the information. Suppose, just suppose, that you read in your morning newspaper "Our Canberra correspondent reports that the pay of all ranks of the Army is to be increased by 25 per cent." The source of this information may be nothing more substantial than some after-dinner wishful thinking in the mess, transmitted to the reporter by a talkative steward, and you would be very unwise indeed to make any financial commitments on the strength of it. If the report reads "An authoritative source stated that the pay of all ranks of the Army is to be increased by 25 per cent" you are no better off because "authoritative source" could be nothing more than the journalist's attempt to make his report sound more authoritative than it really is. You have no means of telling. However, if the report reads, "This afternoon the Prime Minister announced in Parliament that the pay of all ranks of the Army will be increased by 25 per cent from next pay day" you will be entitled to experience an uplifting of the spirit. But if you are a wise man you will seek confirmation of the report before you do anything rash. We have pointed out that people are prone to observe things in different ways. In this sense observing is not confined to seeing, it also includes hearing. The reporter might not have heard exactly what the Prime Minister said, or he might have misinterpreted the words when hastily writing his telegram. You should, therefore, check the report in other newspapers and on the ABC news. If they confirm that the Prime Minister actually did say that pay would be increased by 25 per cent from next pay day, you are on reasonably safe ground if you make arrangements for replacing that worn-out refrigerator which caused so much domestic difficulty last summer.

Similarly, if the horticultural writer of the "Daily Blurb" tells you that the bones dug up on the

banks of the Murray last week belonged to a peculiar type of early man you should not place much reliance on the information. If, however, a noted anthropologist told you the same thing you can accept it as probably being correct. On the other hand, when it comes to growing tomatoes or pruning apple trees, the horticulturist would be more reliable than the anthropologist.

Try out these tests when reading your daily newspapers, in fact when reading anything, and you will be surprised how little of the information is really reliable without confirmation. But don't let it warp your mind until you become a domestic horror by demanding that your wife and children "prove" everything they say. Be selective. You can accept most of the day-to-day things without question. But when it comes to preparing a staff paper or undertaking any important or creative thinking, then examine your information with a cold and critical eye.

Bad Language

Nothing is so conducive to loose thinking as loose language, particularly language that has an emotional emphasis. The use of emotionally charged words is the commonest trick of the politician, the propagandist and the salesman. The danger of using emotionally toned language lies in its tendency to dispel our critical powers. Mr. A. P. Herbert wrote about this kind of language—

> "Those who say 'Deeds — not Words' should note how, in politics, one cunningly chosen word may have more power than a thousand irreproachable deeds. Give your political dog a cleverly bad name and it may do him more harm than many sound arguments."

For example, a politician described by his friends and supporters as "a staunch Conservative" might well be described by his opponents as "a hardened Tory" or a "reactionary." In both cases the words appeal to emotion rather than to reason. The words *Fascist, Communist, Bolshevik, Nazi* and many others are often deliberately employed with the intention of bypassing reason with an appeal to emotion.

There is nothing inherently wrong with the use of emotionally-toned language. It depends on the intention. If you want to appeal to emotion by all means use them, they are entirely in keeping with your intention. But they have no legitimate place in an appeal to reason. If you want to give your troops' morale a boost on the eve of battle, some well-chosen emotionally toned expressions may help immensely, but if you employ them in the preparation of a staff paper you may confuse both yourself and your superior. You will certainly annoy him, and that is not a good thing to do to a superior.

In our serious reading, in our evaluation of information, we should beware of witch-words lest they steal away our judgment. Information that is expressed in precise terms, in words that have an exact and universally understood shade of meaning, has a greater value than information expressed in less exact terms. Conversely, in writing or speaking we should seek to say *exactly* what we mean by a dis-

criminating choice of words. If we see a man crossing the parade ground and we say "There goes a soldier," we have conveyed to our audience nothing more than the fact that they are looking at a soldier, any sort of a soldier. If we say "There goes a gunner," we have told them not only that he is a soldier but that he is a particular sort of soldier. If we say "There goes a gunner captain," we have told them that the man crossing the parade ground is a soldier and captain in the Royal Regiment of Artillery, which is a lot more information than was contained in the first observation, though it took only one more word to express it.

If our information, the raw material of our thinking, is to be put together properly, and if the results of our thinking are to be expressed accurately, we must cultivate precision of language. We should prefer the concrete word to the abstract, the exact to the general. We should avoid like the plague those circumlocutory cliches invented by journalists to titillate their readers, or by salesmen to bemuse the public. Our official correspondence teems with these impediments to clear thinking and exact expression. Why must we say "the majority of . . ." instead of the simple, direct "most"? Why do we say "blue-print" when we mean, or ought to mean, "plan"? Actually a blue-print is only a copy of a plan. "A percentage of" and "a proportion of" mean simply "some" and for all their pretentiousness they do not mean any more than that. "In short supply" is merely a pompous and inexact substitute for "scarce." "Military and civil personnel" is another example of pomposity. What is wrong with "soldiers and civilians"? And why say "ceiling" when we mean "limit"?

This does not mean that our conversation and our writing must be weak and flat, or that we must eschew the use of metaphor and simile. But force and grace of language are not found in the use of bizarre expressions. If you don't believe it, read Gray's *Elegy Written in a Country Churchyard.* In this very beautiful piece of English the poet conveys his meaning with extreme exactitude by the skilful selection and arrangement of simple, concrete words.

We gather much of our information from sources written in an idiom which differs from our own. In setting down the results of our thinking we should translate the foreign idiom into our own lest our readers get the wrong impression. One example is the use of the word "presently." In American writing this word is used in the sense "now," "at present," whereas in our idiom it means "in a short time." If you use this word in a paper you might be quite clear that you mean "at present," but your reader might justifiably interpret it to mean "in a short time." And a simple thing like that can lead to a lot of trouble.

Induction and Deduction

Having collected and checked our information for reliability, and noted the desirability of precision of expression, we now have to consider how we are going to use the material. One of the processes by which information is converted into logical thought is called induction. Let us look at a few examples.

If you go into the orderly room

one morning and see, instead of the sergeant in his usual place, a partly sharpened pencil, a few shavings, a razor blade, a spot or two of blood on the writing pad and a blood-stained handkerchief, you may say to yourself, "The sergeant was sharpening a pencil and cut his finger." From the observed facts you have formed a theory to explain the sergeant's absence. On the evidence, however, this theory explains nothing more than what happened on this particular occasion. Unless you already have some other information you are not justified in concluding that the sergeant frequently cuts his finger when sharpening pencils.

Suppose that soon after you move to a certain tropical station you notice clouds banking up over the mountains. A little later you get caught in a heavy downpour of rain. You recall that the last time you saw the clouds banking up you were caught in the rain. You take to looking at the mountains before you start out, and you find that it rains every time the clouds bank up in that way. So you conclude that clouds over the mountains are a sure sign that it is going to rain pretty soon. From the observation of particular facts you have formulated a general principle.

We may now define induction as the science of reasoning from particular facts to a general truth, or from a part to a whole.

Suppose, however, that on the first morning in your new station the oldest inhabitant shows you the clouds over the mountains and tells you that rain always follows that phenomenon. You accept this general principle. Next morning you see the clouds and say to yourself: "It always rains when there are clouds over the mountains. There are clouds over the mountains today. Therefore it is going to rain today." You have reversed the process of induction; you have reasoned from the general to the particular. This process of reasoning is called deduction.

In the ordinary course of our duties we seldom use inductive reasoning to establish a principle. Nearly always we are seeking an explanation which will fit all the observed facts. However, *formulating* a theory is not the same as *establishing* one. Before we can accept the theory we must test it thoroughly. The theory formed from the observed facts is called a hypothesis, which may be defined as a tentative theory or supposition provisionally adopted to explain certain facts. The key words in the definition are "tentative" and "provisionally." The hypothesis cannot become an *acceptable* explanation until we have tested its soundness.

Imagination

Many people believe that imagination is an impediment to clear thinking. On the contrary, imagination is the main-spring of inductive reasoning. We collect our observations. On the face of it they don't mean anything at all, they are merely unconnected ideas, we have to find the element which pulls them together and gives them meaning. We have got to start somewhere, so we make a guess at the explanation. The guess becomes our hypothesis, our tentative explanation of the observed facts. Then we test the guess. If it breaks down under test we make another guess, and so on until we find one that stands up

to the tests. This method of imaginative guessing and ruthless testing is the means by which most great scientific discoveries are made.

The following example of inductive reasoning is taken from the book "Thinkers at Work," by A. Boyce Gibson and A. A. Phillips (Longmans, Green and Co).

In 1900 the American Army in Cuba was suffering from the ravages of yellow fever. Major Walter Reed of the Army Medical Service, after whom the Walter Reed Hospital in Washington is named, was sent to do something about it. Reed's initial investigation produced the following facts:—

(a) Yellow fever was epidemic; when one person caught it, others followed.
(b) It jumped from street to street, it did not usually pass from house to house.
(c) Nurses rarely caught it from their patients.
(d) Very often persons who caught the disease had not been near other sufferers.

These observations suggested that the disease was not transmitted by touch, or even by close proximity. They suggested, on the contrary, that it was carried through the air. But how? That was the explanation that had to be found before anything could be done to reduce the incidence of the disease. As a medical officer, Reed was aware of the work of Sir Ronald Ross in finding out that malaria was transmitted by the mosquito. Perhaps yellow fever was transmitted by the same means. It was a start anyway, a hypothesis on which to base further investigations.

The next fact disclosed was that yellow fever does not attack animals other than man. That meant that the tests had to be carried out on human beings. Reed soon had eight volunteers ready to take the risks. They collected mosquitoes of the suspected species, put them in a wire mesh, and permitted them to feed on yellow fever patients. Three of the eight caught the fever, one of them died. The guess was beginning to look promising, but required further tests before it could be accepted as the established explanation. More volunteers were called for, protected from infection for some time, and then bitten by mosquitoes which had previously fed on yellow fever patients. Eighty per cent of them caught the disease. The theory was now tested *positively*, but before it could be accepted it had to be tested *negatively*.

Prior to this it had been believed that yellow fever was contagious, that is, transmitted by personal contact with the sufferer or his clothing. Consequently the clothing and bedding of the victims were usually burned. Reed now collected the clothes and bedding of victims and put them in huts carefully wired to defeat the most persistent mosquito. Three volunteers used the clothes and slept in the bedding for twenty days. None of them contracted the disease. Two more batches of volunteers did the same thing with the same result.

Reed had now established the following facts:—

(a) The volunteers exposed to contagion but protected from mosquitoes all escaped.
(b) Of the volunteers exposed to mosquitoes but protected from

contagion, eighty per cent had caught the disease.

The case *against* the mosquito seemed to be proved, but there was one more possibility. The volunteers who had used the clothing and bedding of victims might have escaped because they were naturally immune. Two of them volunteered for a further test. Blood from a sufferer was injected into one by a hypodermic needle and into the other by a mosquito. Both caught the disease. Clearly they had not escaped infection when they slept in the bedding because they were immune to the disease.

In testing his hypothesis Reed was guided by four fundamental principles of great importance in all reasoned inquiry:

(a) *Enough* examples must be examined to justify a generalization.

(b) The examples must be *widely enough spread* to justify a generalization.

(c) Care must be taken to isolate the essential factor.

(d) Positive results must be checked by *negative controls.*

Two of the terms employed in these principles require further consideration, namely, "isolate the essential factor" and "negative controls." Before Major Reed made his experiments it was believed that yellow fever was a contagious disease because it always occurred in epidemic form. What Reed did was to isolate the essential factor in the transmission of the disease—the mosquito.

Suppose your commanding officer says to you, "Jones, you are carrying too much weight. Cut it down a bit." Since you are already taking plenty of exercise you jump to the conclusion that you must be eating too much. So you make an all-round cut in your rations. This certainly brings the weight down, but you are perpetually hungry and miserable. You become a terror to your subordinates and a sore trial to your wife, even though she appreciates the lighter load on the family budget. In the long run you could have saved yourself and other people a lot of trouble by investigating the problem properly in the first place, perhaps with some medical assistance. In all probability you would have found that the cause of excess weight was not too much food generally, but too much of some particular item or items. All that might have been necessary was a reduction in the intake of carbohydrates.

Having got your weight down, suppose you are given the job of organizing the testing of a new and rather expensive field ration under certain specified conditions. You take 100 men and feed them on the new ration for a month under the specified conditions. During this period you keep careful records of variations in weight, energy output, susceptibility to illness, etc. All that these records will show is the value of *that* ration under *those* conditions. To give real value to the records you have got to take another 100 men and feed them on the old ration for the same period under the same conditions. When you compare both sets of records you might find that the old ration gave equally good results. That is not an argument for feeding soldiers on cheap rations; it is merely an example

of the application of negative controls.

Of course this is a simple example so far as we have taken it. Usually this analyzing out of factors—a most important part of constructive thinking—has to be carried a good deal further when considering the affairs of mice and men no less than when searching for an explanation of physical phenomena. Suppose that the new ration did give better results than the old one. If you carry the tests further you might find that it is a particular ingredient of the new ration which brings about the improvement. Then you don't necessarily want a whole new ration; all you require is the presence of that particular ingredient in sufficient quantity. Turning to social behaviour, it will be recalled that a few decades ago the Japanese were undoubtedly a militarily aggressive people. Was this due to the educational system, to the domination of an ambitious ruling class, or to economic pressures. Until we analyze these, and perhaps other, factors we are in no position to say whether the Japanese are likely to be militarily aggressive under the changed conditions of today.

In tracing back the chain of cause and effect it is important to remember two things. Firstly, we may not arrive at a *single* cause, the explanation may lie in a complex of related causes. Secondly, a point is reached on the chain when no purpose relevant to the inquiry will be served by going any further.

Suppose we are inquiring into the cause of the American Civil War. A little research will give us the following factors:—

(a) The economic life of the South was based on slavery, whereas slavery did not exist in the North. The South insisted on retaining slavery; the North insisted on abolishing it.

(b) The North was an industrial community and demanded protective tariffs to give them an advantage in Southern markets. The South was an agricultural community and believed that free trade was essential to its economic welfare.

(c) The North held that the Union was indissoluble; the South held that the Constitution gave each State the right to secede.

Those were the principal factors in the dispute. The deadlock was caused by the combination of these three factors rather than by any one of them. To some of the disputants slavery was the irreconcilable factor; to others it was the question of tariffs. Still others, who had no direct interests in either slavery or tariffs, were adamant on the question of State rights. If any one of these factors had arisen in isolation it is improbable that a solution could not have been found.

Unless we want to go into American politics and personalities of that period, we will not serve the purpose of our inquiry by pushing back beyond this point, of trying to find out the causes of these causes. If we ask "Why did the North want the Southern markets" and answer "To make money," and continue that line of inquiry we will end up in the Garden of Eden discussing the doctrine of original sin. In seeking explanations then, when we find that a line of inquiry contributes nothing more that is really relevant, or is leading us away from

the point at issue, we ought to discontinue it.

Deduction

One morning the sergeant-major tells you that another squad of soldiers has marched in from the recruit training depot. In considering their allotment for duty you will subconsciously think like this: "All soldiers coming to us from the recruit *training depot* have been trained to a certain standard. These men have come from the recruit training depot. Therefore I can take it that they have been similarly trained." You will have applied the general rule to the particular case, on the principle that what is true of all is true of one. To put it another way, from two pieces of information you will have deduced a third piece.

If we are going to apply inductively formed general statements to new situations we have to use deduction. In anything but very simple cases we constantly shift from one to the other. By the inductive process we form a hypothesis. In order to devise a test for it we must ask, "If this is true, what follows?" For example, in searching for the secret of yellow fever Major Reed *inductively formed* the hypothesis that the fever was carried solely by mosquitoes. He then said in effect, "If that is true, what follows? It follows that contact with the clothing of victims will not cause infection." He had to make that deduction before he could devise a suitable test.

The great value of the combination of induction with deduction is that it enables us to forecast what is likely to happen in given circumstances, which is the basis of most military action.

Elements of an Argument

In logic an "argument" is not a violent or disagreeable dispute; it is the orderly process of thinking. In the case of the recruits we saw that by putting together information already known we can obtain new information However, if we are to get sound results we must follow four rules.

Rule 1.

In order to get new information out of old there must be at least two pieces of old information.

If you don't recognize a tiger snake when you see one, the knowledge that tiger snakes are deadly won't save you. If you know what a tiger snake looks like but don't know that it is deadly, you are still in grave danger.

Rule 2.

In order to produce anything useful the two statements must contain one common term.

If we say all live grenades are potentially dangerous—all bayonets are sharp, we don't get anywhere because there is no common term in the two statements. However, if we say all live grenades are potentially dangerous—this is a live grenade, the common term "live grenade" leads us to the conclusion that this one is dangerous.

Rule 3.

At least one of the pieces of information must be a general statement.

In the example given above "*all* live grenades are potentially dangerous" is a general statement. However, if we had said *some* live grenades are potentially dangerous—this is a live grenade, we don't get very far because the first piece of information is not a general statement. Since it is not true of all live grenades, it may not be true of this one. However, we must not slip into the opposite assumption. If, because only some live grenades are potentially dangerous, we assume that this one is not, we are likely to wake up in hospital if we wake up at all.

Rule 4.

The general statement must be about the common term.

Failure to observe this rule is often seen in "Letters to the Editor" in the columns of the daily newspapers, where arguments constructed on the following lines are common.

"Narrow-minded people believe in the censorship of books—Mr. A. Suburb believes in the censorship of books—therefore Mr. A. Suburb is a narrow-minded person."

In this argument the common term is *believe in book censorship* but the general statement is *narrow-minded persons.* We know that narrow-minded persons believe in book censorship, but there is nothing in the argument to show that people who believe in book censorship are necessarily narrow-minded persons. All dogs have tails, but it does not follow that all tails have dogs.

Of course the application of these four rules will not lead to a sound conclusion unless the information from which we start is true. Look at the following argument:—

"All soldiers have flat feet—Jim Jones is a soldier—therefore Jim Jones has flat feet."

This argument is soundly constructed. We have a general statement, a particular statement, and a common term about which the general statement is made. But the conclusion is probably unsound because the general statement is untrue. Similarly the conclusion will

be unsound if the particular statement is untrue.

Just as we should check the accuracy of our information, so we should check the soundness of our argument. First examine the general statement. If you can find one exception to the "all"—one soldier who is not flat-footed—the conclusion cannot be reliable. Jim Jones might be another exception. Then see if the particular statement is true—is it a fact that Jim Jones is a soldier. If you are satisfied about both statements, examine your argument for soundness of construction. If you are also satisfied about that you can accept the conclusion. In practice many cases will occur in which you are satisfied that your argument is sound but in which you are not quite sure about the reliability or completeness of your information. In these cases the only thing we can do is accept the conclusion as tentative pending further investigation, and keep an open mind.

Definitions

Of all the snares along the path of clear thinking, perhaps the easiest to fall into is the confusion brought about by inaccuracy in the use of quantitative expressions. Quite frequently we think we are talking about "all" when we are only talking about "some," an error brought about by the tendency to emphasize our argument by using the stronger expression. Sometimes the error occurs because we fail to qualify our statement with any quantitative expression. If we say "Australians drink too much beer" do we mean that "*some* Australians drink too much beer" or that "*all* Australians drink too much beer"? If we mean

the latter we can argue that the writer of this paper is not an Australian because he doesn't drink too much beer, which would be absurd. For one thing he can't afford to at the present price. If your distraught wife greets you on your return from a gruelling day working on a staff paper with "Little Jimmy hasn't come home from school, he must have been hit by a car," it is a clear case of "some" turning into "all." Children on the way home from school often do get hit by cars, but by no means always. There are several other possible explanations; in the absence of further information we should not jump to the worst one.

When talking about groups we need to be careful about what we are saying. To say "No. 1 Platoon is a first-class fighting platoon" does not necessarily mean that every member of No. 1 Platoon is a first-class fighting soldier. We all know that most platoons contain some men who, perhaps because of inexperience, are not so good as others. And we all know that a platoon can be a first-class fighting team and still "carry" a few raw reinforcements. We are talking about the

qualities of No. 1 Platoon *as a team*, not about the individual qualities of all members of it.

Beware of statistical definitions, for statistics can be misleading. Any statistical investigation records the state of affairs *at a given place and time*. The figures cannot automatically be extended to any other place and time. We can, however, accept them as a hypothesis for testing to see if they will also be true of that other place and time we now have in mind.

Statistics are reliable only when enough cases are investigated. If we say that 100% of "A" Company failed in musketry classification yesterday, and we then find that only one "A" Company man fired the practice, it would not provide us with very reliable information about the musketry prowess of "A" Company as a whole. Furthermore, statistics are reliable only if the samples are sufficiently spread. The accuracy of public opinion polls, for example, depends largely on the spread of the samples through all levels, sections and interests of the community.

Irrelevance

It is recorded that the colonel of a famous cavalry regiment once declined to recommend an officer for the Staff College because "the fellow plays a rotten game of polo." The colonel, of course, had missed the point; there is no logical connection between playing polo and being a good staff officer. But a good many people used to think there was, an irrelevance which led step by step to much useless and senseless slaughter in World War I.

Irrelevance is not always so obvious as that; it is fatally easy to slip into it in the course of a long or an involved argument. We must pause frequently and ask ourselves, "Is this in fact the real point under discussion?"

Irrelevancy is one of the greatest causes of failure at examinations, despite the repeated advice "Read the question carefully." Not so long ago a question in military history read, "State the lessons to be learned from the battle of ——." Thirty-two out of seventy-eight candidates wrote full descriptions of the battle without mentioning the lessons—and wondered why they failed. They could read all right, but did they think?"

Begging the Question

Begging the question means assuming to be true that which you have to prove to be true. If we say "Communism is evil because it is not democratic, in that the people as a whole have no real say in the government," we merely make an assertion; we do not put forward an argument. Communism starts from the theory that the people should not have any say in government, that they should be governed by the dictatorship of the Party hierarchy. We have to prove that this concept of government is evil. To avoid this common error of begging the question we must frequently check our argument by asking "What is the real question at issue?" Sometimes we have to construct a separate argument to find that out.

Analogy

Sometimes we attempt to explain a phenomenon by analogy, by illus-

trating it with a parallel or similar phenomenon. This is quite legitimate, but we *must* be *very* careful indeed that the cases are in fact similar in all essential respects. Every time an analogy is presented to us we want to examine it critically, for it is one of the most effective weapons in the armoury of the propagandist. How often have we seen political propaganda based on an analogy between a vessel at sea and the "ship of state"? The speaker (or writer) talks about "rough weather," "rocks ahead," the good navigational job done by the present ship's company, and for good measure may even mix his metaphors with a warning about "changing horses in mid-stream." But never a word about the real points at issue, the actual policies about which the electors are being invited to give a decision. And it works. We lap it up, particularly if we are predisposed towards that particular party. We get angry with the fellow in the audience who shouts, "Give us your policy." That man has got something, even if he doesn't know it.

Summary

We can now summarize the rules of clear thinking.

First check and test the information on which you are going to base your argument.

Practice discrimination in the choice of words, aim at exactitude of expression.

Rules of Inductive Reasoning.

1. Enough examples must be examined to justify a generalization.
2. The examples must be widely enough spread to justify a generalization.
3. The essential factor must be isolated.
4. Positive results must be checked by negative controls.

Rules of Deductive Reasoning.

1. In order to get new information out of old there must be at least two pieces of old information.
2. In order to produce anything useful the two statements must contain one common term.
3. At least one of the pieces of information must be a general statement.
4. The general statement must be about the common term.

Distinguish carefully between *all* and *some*, particularly when the words are implied and not actually used.

Be careful about the use of statistics, particularly when they are expressed as percentages.

Stick to the real point at issue.

Avoid begging the question by assuming to be true that which you have to prove to be true.

Beware of analogies, test them for relevance.

Acknowledgments

The following books were consulted in preparing this paper:—

Thinkers at Work, by A. Boyce Gibson and A. A. Phillips (Longmans, Green and Co.).

Thinking to Some Purpose, by L. Susan Stebbing (Pelican Books).

The Uses of Argument, by Stephen Toulmin (Cambridge University Press).

SHOOT TO KILL

A SUGGESTED WAY TO IMPROVE SHOOTING IN THE CMF

Lieutenant-Colonel C. L. Thompson, MBE (R of O)

"As a soldier teach me not to be afraid, least of all of a new idea."

SHOOTING ability is like learning to ride a bicycle—once you have learnt to handle a bicycle you can always ride. So it is with shooting. If we can ensure a proper standard of training for the recruit, the skill once acquired will be hard to lose. The writer maintains that our present methods of teaching with the aid of classification targets, grouping practices and train-fire techniques are too cumbersome. We tend to dress up shooting instruction with a lot of unnecessary frills and do not give enough credit for the modern youth's natural ability to quickly pick up the "know-how."

In peace-time in the CMF it may not be a serious omission to give only low priority to shooting, provided time will be available on mobilization. Nevertheless, there is a pressing need for officers and NCOs to have a reasonable standard of accuracy. It is they who must act as our instructors when we try to mass-produce our shooters during mobilization.

The fundamental theme of this paper is that within two days the recruit can be taught to handle his rifle like an experienced kangaroo shooter if we encourage his natural instinct and develop a mental keenness that will spur him on to our desired goal. Gone are the days of firing over long ranges from the fire trench. Most authorities agree that the rifle will be used only for "close-in" fighting. The infantryman must be able to kill with the first shot, fired from any position.

For this reason it is wrong to teach recruits to fire from the lying position. Whilst the prone position offers better support, it creates the wrong mental attitude for the shooter. The kneeling position offers far more in aggressiveness and in freedom of movement.

The second feature of the scheme to be outlined is that it offers the recruit a concentration in shooting practice. This is a distinct advantage, as our present training timetable imposes too much delay before the young soldier is considered mature enough to carry out "advance handling." The quicker the soldier starts on his repetition of firing the sooner he will be a champion shot.

It is suggested that the recruit should not proceed with his firing of the sub-machine gun or the Bren until he has carried out the training with the rifle to be outlined.

Once he has mastered the rifle he will have little difficulty in achieving satisfactory performance with other small arms.

Outline of the Proposal

1. All rifle shooting is carried out on the thirty-yard range and in a shooting gallery up to fifty yards long. (However, if space is a problem the thirty-yard range can have a modified shooting gallery superimposed on it.)
2. Instruction is given at the kneeling or standing positions. The prone position is used only when the firer is well advanced.
3. The initiation period is best carried out with the aid of a shot-gun. The shot-gun has a distinct advantage, as it more quickly highlights the need for good direction and at the same time it is an easier weapon with which to hit the target, thereby developing a mental climate of success so essential for early confidence.
4. *Stage 1.*

   Use master and pupil technique.

   Targets to be used are large tins, e.g., paint tins. (Jam tins are too small at first.)

   Allow about sixty rounds.

   Time—about one hour or longer.

   No rules of aiming, etc., are taught until the recruit changes from the shot-gun to the rifle.

   Emphasise the importance of correct trigger-pressing and direction finding.

   Master demonstrates each point; *pupil copies and is corrected.* Master makes sure pupil has a reasonable idea of each point before proceeding.

5. *Stage 2.*

   Practice in the shooting gallery, firing from all positions and at various speeds.

   Introduction to gallery should be straight-out aiming and firing at tins at *shorter distance,* working back to the farthest targets.

   Targets should be various sizes, *but jam tins are usually too* small.

   Allow about 60 rounds.

   Time—upwards of 1 hour.

   Note—For the recruit the firing of about 60 rounds on the first day is sufficient—otherwise the shoulder gets sore and spoils *the second stage.*

At this point it is worth drawing attention to the benefit of using short distances with tins or other kinds of targets that move when hit. It means that there is no waste of manpower in butt parties, etc. The whole instruction is carried out at the *firing point and involves only* two people—master and pupil. In Stage 2 the master can drop out and shooting can be conducted on a section basis, the section leader being the fire controller.

Stage I—"Learning to Kill"

The first requirement is to get the recruit to the thirty-yard target area and win his licence (as it were) to handle his weapon in battle practice. In fact, so much can be achieved on the thirty-yard range that it is a wonder that we have not got many more of them around camp sites and in spots handy to CMF Training Depots.

The instructor—the master—demonstrates to his pupil how the

rifle is held and fired. The recruit copies and fires a number of shots. At this stage no attempt is made to teach the rules of aiming. Rather, the purpose is to familiarise the recruit with holding and trigger-pressing. Tins are used as targets which, of course, move when hit. As the recruit perfects his holding and trigger-pressing the rules of aiming are explained. From experience, after about 15 shots the pupil is able to hit the tins and has the thrill of seeing the results of his shooting as the tins move. This has a tremendously important psychological effect on the pupil, as the confidence so quickly won becomes a firm basis for future lessons.

At this stage the master should pause to practise the recruit in bolt manipulation and the finer points of holding. When this is completed the recruit is taught to fire from the standing position, firing about ten rounds.

Although the master has demonstrated how to sight the rifle well before this point has been reached, it is not till now that a pupil is practised in sighting. The reason for this is that it is far more important for the soldier to learn to hold and fire the weapon. By this time his confidence has developed and he can concentrate on the important subject of aiming.

The final part of the instruction is to practise firing "rapid" and "snap." This is best taught by giving the recruit a "dry run" before he uses live rounds.

From experience it is better to teach the snap before the rapid firing. The best way to teach snap is to have about six tins of different colour displayed around the target end of the range. The instructor alerts the firer in kneeling position, rifle at the "rest" position. He then calls the target—e.g., "red tin"—and the firer aims and fires, not forgetting to reload. He is then switched from target to target.

The above instruction takes no more than about one to two hours, depending on the aptitude of the pupil. If the pupil is not progressing fast enough he should be practised on the mound without ammunition.

During the afternoon or the evening of the first day, the recruit is shown how to clean and care for his weapon and generally given the essential facts on the mechanism. A film is very useful at this stage.

Stage II—The "Gangster Touch"

This stage should take place on the next day. The purpose of the instruction is to give the soldier the idea of how to use his rifle in battle. The design of a suitable gallery is shown in Figure 1, but there is no reason why a similarly designed gallery should not be superimposed over the thirty-yard target.

The soldier is first practised in the gallery in the kneeling position, allowing him to select his own targets. Some ten rounds can be used in this manner, and then another ten to practise in the standing position.

At this stage the soldier, as part of a section, is called the target by the instructor or section commander, switching from one kind of target to another on call. An example of the calling is as follows:—

"Section ready—'Tiles'
'Slats'
'Tins'
'Kneeling figures'."

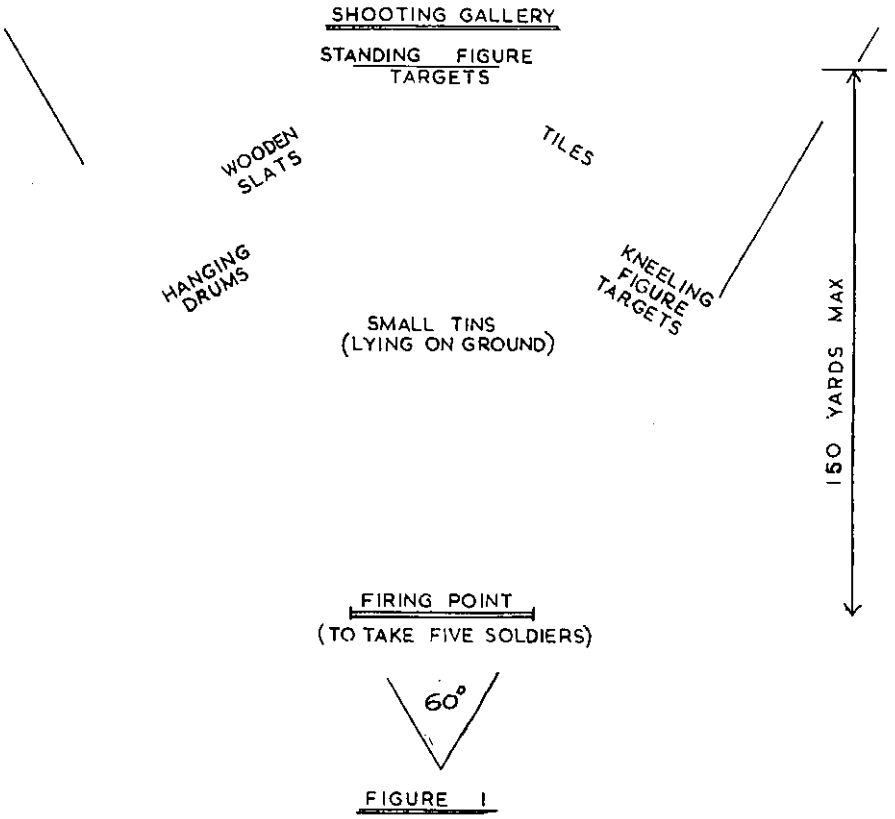

FIGURE 1

NOTE:

1. All targets in sets of five.
2. Except for tins and tiles, all other targets are hung with wire from a cross-bar so that they swing when hit.
3. The firing point contains a trench as well as a mound. so variation in position can be made.

Each man in this section selects a target corresponding to his position on the firing point. Each continues to fire at his respective target until it is hit, unless he is switched in the meantime. The practice can be varied by various means, for example:

"Tiles—three hits—rapid."

At all times the firer must count his shots and insure that there are sufficient rounds in the magazine.

The practice in the gallery can usually be completed within an hour. This allows for several "dry runs," including the time taken by the instructor in his demonstrations.

From experience, sixty rounds is ample ammunition for this practice.

The Other Weapons

It is recommended that the next weapon to be fired should be the sub-machine gun. This could be introduced to the recruit in a manner similar to the technique used for the rifle. However, it is important to see that the firer has a grasp of all the safety rules appertaining to this weapon. If the soldier has mastered the rifle according to the plan outlined, then one or two hours with the sub-machine gun (including firing time) should give him a fairly skilled initiation into the use of the weapon.

At this point he should be introduced to the "sneaker" course, as this provides one of the best ways to teach the spontaneous use of this weapon.

The knowledge of the mechanical side of this weapon is a vital stepping stone to instruction with the Bren. Here again, it is recommended that the best way to teach the Bren is in a practical manner, using the master and pupil technique on the thirty-yard range. (Remember he may not have fired the rifle beyond fifty yards.) Tins or drums are ideal targets because they roll when hit and thereby force the firer to chase the target. This ensures the proper use of bursts and teaches the firer to switch his aim as targets are knocked out.

To gain confidence in handling the Bren, the young soldier is initiated into firing the Bren from the hip as soon as it is considered that he can handle it with safety.

Now comes the time when he goes to the open range. A minimum distance of only two to three hundred yards is all that is necessary. Coloured drums or cylinders made of tin are by far the best targets for use at this range. They should be deployed across a space of fifty yards at the target area. By calling the colour of the drum, the firer is given practice as if he were firing to break up an oncoming attack.

Much time, however, must be spent by the soldier in improving his ability to strip and assemble the gun, and also in gaining a thorough understanding of stoppages. This side of the training can be done at night and in spare time. It is something that is not acquired but developed. For this reason it usually takes a little time before the soldier has a complete mastery of this mechanical side of the weapon.

Is Train-Fire Necessary?

Whilst train-fire offers a very scientific aid to shooting, the question remains—Is it worth all the trouble to set up and maintain? It may have a place on fixed ranges, but on mobilisation or when we are trying to teach as many men as possible in the shortest time, there will not be available enough ranges or range space. The technique described in this paper offers a practical and exciting way to teach shooting. Its use and practice provides the opportunity for our officers and NCOs to familiarize themselves with the sort of thing they will use on mobilization. Moreover, bearing in mind the need for safety and safety angles, the construction of the Thirty-yard range and the shooting gallery offers a more economical way to use ground for shooting. Longer ranges will be necessary for the fire of the Bren, but in this case, too, the 200-yard distance offers a more economical

use of existing ranges. This is especially important on ranges close to metropolitan areas.

Conclusion

It may be contended that training over a longer range is necessary for the soldier handling the rifle. But in practice it will be found that the man who can fire well at fifty yards can also fire accurately at two hundred yards.

If there is some doubt as to the effectiveness of the foregoing, put the proposal to practical test. Take twelve recruits, instructing six in the orthodox manner and six by means of the way just described. Allow a time of four days—hoping that in this period the orthodox method can cover most of the ground—and then bring the two teams together for a shooting and weapon-handling competition. I am sure the new method will be more than vindicated.

The question of training time and its use for CMF purposes is very important. If the shooting side could be satisfactorily completed by telescoping the small arms training in the manner proposed, it would leave much more time available for teaching bush and battlecraft—the life blood of the modern soldier. The young CMF soldier would also be getting value for his time and would no doubt be exhilarated with the progress he has made.

Shooting during the year is usually a problem in the CMF—to find the time, to get one hundred per cent attendances and keep up the impetus of the instruction. For this reason recruits could be put through their shooting during their first four days in annual camp. If the emphasis is on essentials and the subject is treated in a practical manner, the recruit should reach a fair standard. As a CMF soldier, he may not fire his weapons for another year, unless there are repetition practices at a bivouac or on the range, but at least he would have a basic knowledge of the skill which could be developed on mobilization.

Most of the ideas expounded are not new. The training centre at Canungra has a very effective shooting gallery and gets excellent results from its use.

Strategic Review

FALSE UTOPIA

Reprinted from the September 1960 issue of "An Cosantoir," Eire

AT a time when many enlightened Europeans have been thinking in terms of a United States of Europe and of the desirability of rising above the concept of nationalism, the continent of Africa, with its population of 230 millions, has exploded into a passionate nationalism which has changed the face of the Dark Continent in a memorably short time.

At the end of World War II there were only four independent states in the continent; by the end of 1960 some seventeen will have achieved independence of a kind.

Of the colonial powers which have conceded the principle of independence, France has, perhaps, been the most spectacular. With almost breathless speed she has reversed her former colonial policies and has granted independence to vast areas of West Africa and Equatorial Africa. Eleven new republics have, as a result, come into being.

By contrast with the birth pangs of the Republic of the Congo, the nativity of these new nations has been, almost without exception, placid. French colonialism has never been marred by colour antagonism, and there has been considerable friendship and respect between the young republics and their former overlord.

In 1958 General de Gaulle offered France's colonial possessions the choice between integration with France, autonomy or secession. Of her former colonies only Guinea opted for secession. The remaining twelve territories chose local autonomy and adherence to the French community.

Provision had been made in the Constitution of the Fifth (French) Republic for the granting of full independence on request. Since 1958 eleven of the twelve territories have requested full independence and by the middle of July this year had obtained it. The remaining member of the community—Mauretania—has not yet asked for independence.

While most of the new nations appear to have settled into their new status, one of the less successful efforts has been the Federation of Mali, which, after an uneasy existence of little more than eighteen months, has been disrupted.

The constituent units of the Federation were the former French territories of Soudan and Senegal, which combined have an area of

875,000 square miles—or three times that of France. The population is six-and-a-half million. The economy is mainly agricultural, the principal crops being ground nuts, cotton, rice and phosphates.

The announcement of the formation of the Mali Federation was made in January 1959. It marked the first effort of African states to take the initiative in combining together for the communal benefit. Originally the republics of Dahomey and Upper Volta adhered to the Federation as well as Soudan and Senegal, and a draft Constitution was drawn up and adopted, the Federation being named Mali. The name was acquired from that of a medieval empire which covered a considerable portion of West Africa from the 11th to the 15th centuries, and which did not finally disappear until the 17th century—a long existence which promised well for the new state.

The Federation thus comprised four of the eight territories which formerly constituted French West Africa—Guinea, Niger, Mauretania and the Ivory Coast being the others.

Shortly after the Federation was announced both Dahomey and Upper Volta withdrew from membership, and when it came into official existence only Soudan and Senegal remained. The Federal Assembly consisted of twelve members from each of the two Republics. A Senegalese was elected President of the Assembly while a member from Soudan was elected Prime Minister. The Cabinet consisted of seven additional members—four from Senegal and three from Soudan.

Mali was one of the first states to seek full independence within the framework of the French community. An agreement providing for independence was signed on 4 April 1960. The agreement also provided for economic aid from France and for a Malian army of 5,000 strong. The military bases necessary to the community, notably at Dakar, which dominates Atlantic sea communications, were to be ceded to the community.

The agreement was ratified—not without opposition—by the French National Assembly, and independence was formally proclaimed on 20 June. Nine days later the Security Council of the United Nations unanimously recommended Mali's application for membership for the approval of the General Assembly.

The aim of the Mali Federation, even after the unfortunate withdrawal of Dahomey and Upper Volta, remained the same; the reunion of French West Africa into a single state with Guinea as a member. For economic reasons, however, it was considered necessary to retain the link with France, for some time at any rate, to ensure the continuance of French economic aid and to keep the French door to the Common Market countries open for Mali's products.

When the wave of frenzied excitement consequent on the attainment of official independence had subsided, the Federation settled down to the practical business of administration. Almost immediately it was faced with the inevitable clash of personalities and policies of the component states.

A crisis arose over the election of the President. The rival candidates were M. Keita of Soudan and M. Senghor of Senegal. It had been generally understood that the Mali

President would be M. Senghor, and the Prime Minister M. Keita, but at the last minute the latter decided to contest the Presidency.

The Senegalese, in the person of their Prime Minister, M. Dia, who was also Federal Minister for Defence and Internal Security, objected to the new situation. A special session of the Mali Cabinet, headed by M. Keita, divested M. Dia of his Federal post, the powers of which M. Keita himself assumed. A state of emergency was proclaimed.

The reaction of the Senegalese was to call a meeting of the Senegal Legislative Assembly, which voted to secede from the Federation.

Unavailing efforts were made by France to compose the differences of the two parties, mainly to prevent another situation such as existed in the Republic of the Congo, but also to prevent the Soudan from forming an alliance with Guinea, whose bias towards Communism can hardly be doubted. Soudan insisted that the Federation was indissoluble, while Senegal refused to consider its revival. An impasse was reached and, finally, on 12 September France recognized the independence of Senegal and her secession from the Federation. In the light of this new development the United Nations' General Assembly meeting in September postponed consideration of Mali's application for membership until the situation was clarified.

French recognition of Senegalese action has caused a Congo-like situation to loom in the young republic. It may well throw the Soudanese, who already are accusing France of inspiring the crisis, into the arms of pro-Soviet Guinea. This would eventually mean another automatic anti-Western vote in the United Nations' General Assembly, in which the Afro-Asian vote will shortly hold the balance of power. Each vote will count towards the success or failure of the organisation as a whole, and the pique caused by a fancied slight could readily cause the collapse of the UN.

The unhappy dissolution of the Mali Federation marked the abrupt end to an experiment in co-existence; it is no promising portent for Africa.

—R.G.E.

NOTICE TO CONTRIBUTORS

Potential contributors, who for any reason feel some diffidence about writing under their own names, are reminded that this Journal accepts articles written under a *nom-de-plume*. It is, of course, necessary that the name and address of the author should accompany all articles submitted for publication in order that the editor may communicate with him. However, in the case of articles written under a nom-de-plume, the name of the author is held in strict confidence by the editor.

Where an article written under a nom-de-plume is awarded a prize the name of the author will not be shown in the notification of the award published in the Journal, nor communicated to anyone except the finance officer making the payment.

—Editor.

THE ARMED FORCES OF JAPAN

Major Edgar O'Ballance

5th Bn The Sherwood Foresters, Territorial Army, UK

AFTER her unconditional surrender in 1945 it may come as something of a surprise to know that 15 years later Japan has a volunteer armed force of about a quarter of a million men. The realization of the tremendous, growing power of Communist China makes Japan's strategic position, strength and attitude of increasing importance.

Therefore a short review of her armed forces may be of timely interest.

Japan

The country we think of as Japan is really an archipelago consisting of over 3,300 islands set in the western Pacific Ocean, lying adjacent to the land continent of Asia. The four largest of the islands are Hokkaido, Honsu, Shikoku and Kyushu.

Japan has an area of 141,954 square miles, but only 15% of the land surface is flat enough for agriculture, as mountains dominate the country. Although the most heavily industrialised country in Asia, her economy is primarily based upon agriculture. The population is about 93 million, and is reported to be increasing at the rate of about 700,000 a year.

Between island and island naturally communication has always been by sea, and still is, but on the four largest islands, owing to their mountainous nature, roads development has not been good. Since 1948 a road construction programme has been in progress, and the picture has improved considerably. Railway communication is not good either, as there are only just over 30,000 miles of track, much of which is single, narrow gauge. The frequent necessity for bridges, tunnels and embankments has done much to restrict the rapid development of land communication.

To the north of Japan is the Russian island of Sakhalin, separated only by a narrow strait, whilst the Russian-occupied Kurile Islands are even closer. To the west, only about 125 miles of sea separate Japan from the peninsula of Korea, whilst farther west still the Communist Chinese mainland is only about 600 miles distant. Japan is ideally situated strategically to become a bastion against Communist expansion.

Modern Military History

When Japan was opened up to the West in 1853, she at once awoke to the 19th Century, and began a feverish race to catch up industrially

and technically. She greedily adopted and copied Western ideas. In 1862, the Shogun experimented with a European-type army, building up a small force numbering about 13,600 all ranks. Rifles and cannons replaced the bow and arrow, but this was disbanded on the fall of the Shogunate in 1867.

However, it served as a pattern for the future, and a little later a small modern army was formed, which increased in size quickly when conscription was decreed in 1873. This new army, and the adopted progressive Western ideas, did not find favour with the older, conservative elements, and in 1877 it had to take the field against the Samurai, the traditional warrior caste, and to fight an eight-month campaign against it.

In 1873, Japan established a small navy with British help.

The first real test of the new Japanese army came in the Sino-Japanese War of 1894-5, from which valuable lessons were learned, and which resulted in Formosa being given to Japan, and the Japanese being allowed a free hand in Korea, then nominally under Chinese rule. In 1900, Japan sent a small detachment to China to take part in the Relief of Peking, which impressed all the military observers by its showing and efficiency.

In the Russian-Japanese War of 1904-5, Japan successfully faced a non-Asiatic power and deployed large land forces for the first time. Then, after only playing a minor part in the First World War, she developed a peacetime standing army of about 300,000 men, and a fair-sized navy.

In 1931, Japan invaded Manchuria and thus began what she claims to be a period of 24 years continuous active service, which did not end until her defeat in 1945. In 1931 and 1932 there were Japanese campaigns in Manchuria and around Shanghai and in 1935 she deployed forces in North China. In 1937, Japan began hostilities seriously against the Chinese Nationalists, and these continued until 1941, and afterwards, although after that date her main strength and energies were directed elsewhere, as her attack on Pearl Harbour, in December 1941, brought both Japan and America into the Second World War.

Conscription had created large reserves of trained manpower, and the maximum strength of the Japanese armed forces rose to the 5 million mark, and at one time the army consisted of over 140 divisions. The navy entered the war with about 200 ships and 67 submarines, many of which were lost in action subsequently.

On August 6th, 1945, the first atomic bomb was dropped on Hiroshima.

On August 8th, Russia declared war on Japan.

On August 9th, the second atomic bomb fell on Nagasaki, and on September 2nd, the formal document of surrender was signed.

Re-birth of the Armed Forces

Starting promptly in September 1945 America, as the occupying power, did her utmost to break down the Japanese war potential, her armed forces were completely demobilised and her war industries crushed and broken up. By education and propaganda great lengths were gone to in an effort to change

the warlike outlook and military character of the Japanese people. This was largely successful, as there was a violent reaction to militarism following defeat. The military junta was discredited and America was able to plant the seeds of democracy and pacifism in fertile ground. The new Japanese constitution outlawed war and prohibited the maintaining of any armed forces.

Only a small nucleus of an armed, disciplined body remained in being, known, first of all, as the Police Reserve, and later on as the National Safety Force.

The attitude of Russia and the victory of the Communists in China made America modify her initial policy in Japan severely, and she began to regard Japan in a new light, as a possible future ally in any fight against Communism. The Korean War caused America to sharply reverse her 1945 attitude towards the Japanese, and instead she now tried to persuade them to re-form their defence forces, but found that the seeds she had planted so well had taken root and flourished. The Japanese were reluctant to re-establish military forces, and even more reluctant to pay for their upkeep.

To remain in Japan as the oppressive "occupying power" was not tactful under the circumstances, so as a first step to encouraging Japan to develop armed forces, in 1951, a joint American-Japanese Treaty was signed. The Japanese did not consider its terms to be over-favourable to them, but it was accepted as being preferable to remaining "enemy-occupied" territory.

Eventually, Japan agreed to develop and maintain a defence force of about 250,000. America had suggested, and hoped for, one of at least 356,000. In March 1953, a mutual defence agreement with America was signed, and America agreed to provide some technical equipment and jet aircraft.

By this time the National Safety Force had become a miniature army, and there was a miniature navy in being as well, the two having grown to a strength of about 110,000 men all told. The navy, known as the Coastal Safety Force, had a strength of about 30,000 men and over 200 small ships.

In June 1954, the National Defence Council was set up to advise the Japanese Cabinet on defence matters, and the National Safety Force changed its name, becoming the National Self Defence Forces. A Defence Agency controlled the three services, the army, the navy and the air force, each of which had its own Chief of Staff. The new-styled Self Defence Forces had an uphill struggle against anti-military prejudices and Government indifference.

The Army

The Army, known as the Ground Self Defence Force, began with an inherited strength of almost 100,000 men, mainly infantry armed with small arms. Its numbers increased, but slowly. The equipment was mainly that used by the Japanese in the Second World War, of which there were ample stocks available, but America gave tanks and other technical equipment, and helped in training matters. Japanese officers attended courses of instruction in American military schools.

Today the Ground Self Defence Force of Japan is reputed to number

about 170,000 men, but this is considered to be the "basic" figure, and the true one may be higher. The field army consists of 6 divisions, 4 combined brigades, 3 tank groups and supporting units of artillery, signals and engineers. The divisions are infantry ones, with a field artillery component, whilst the combined brigades at the moment consist of a mechanized infantry regiment of 3 battalions, and an artillery regiment. The organization of the 3 tank groups does not yet seem to have been settled, but they have both light and medium American tanks.

The Army has its own air component, and possesses just over 100 light aircraft of different sorts, as well as a few helicopters.

For administrative purposes, Japan is divided into five military "areas."

Planned expansion for the Ground Self Defence Force includes the formation of an airborne division, and a helicopter wing, as well as several more mechanized combined brigades. A school of electronics and other training establishments are planned too, but all are slightly behind schedule.

Most of the Japanese officers, especially the senior ones and those in the middle grades, saw service in the Second World War, and the Army is short of young, junior officers. To remedy this a Defence Academy was established in 1953, but it met with many difficulties, and the first batch of officer-cadets did not graduate until 1957. Officer-cadets on leaving the academy serve for a year as sergeants before being commissioned. Several batches have since graduated from the Defence Academy so this shortage is not now so acute. As the academy is capable of being expanded, it should, unless the defence forces swell suddenly to gigantic proportions, be able to supply sufficient young regular officers for the forces in the future.

The other ranks are all volunteers, and the warrant-officers and senior sergeants have all seen war service.

Air Force

Japanese civil aviation was resumed in 1951, and what became the Air Self Defence Force was formally established in January 1953, having an initial establishment of about 2,500 men. It began with 6 wings, each of 18 light aircraft. During the following two years another 140 aircraft were received from America, since when on an average about 200 a year have been added to the Air Force, mainly from America, although the Japanese aircraft industry is now contributing its quota.

The ban on the production of Japanese military aircraft ended in March 1953, thus allowing the Japanese aircraft industry to get into gear again. It developed fairly quickly, but so far has only produced trainer aircraft.

At present the Air Self Defence Force is organised into 2 tactical wings, 2 fighter-interceptor wings and a few transport squadrons. It is thought that it has 1,350 aircraft, mainly F.86 jet fighters, trainer aircraft and transport planes. There are at least 400 jet aircraft, with more than sufficient trained pilots to fly them. Other student pilots are being trained by the Americans.

By 1958, the personnel had reached a strength of over 20,000, and today it exceeds 33,000.

The Air Force controls the rocket launching equipment which has been supplied by America, and is in the process of forming a guided missile corps. Japan has a few air-to-air missiles. Air control warning units come under the Air Force too.

The Air Force expansion plan for 1961 is to build it up to 27 fighter-interceptor squadrons and 6 transport squadrons. The aim is to possess sufficient transport aircraft to carry the projected airborne division. No plans for a bomber force have yet been made public. The Air Force seems to be more lucky in the progress of its expansion programme than the Army, as they seem to be going ahead according to plan.

Navy

Japan has the third largest navy in Asia, coming only after Communist China and Nationalist China. This has developed from the Maritime Safety Board and the Coastal Safety Force, and has now assumed responsibility for coastal defence and minesweeping.

The Navy has a total of over 400 vessels, with a tonnage of 116,000 tons, of which about 200 are anti-submarine craft. All these ships are small, but they include 18 destroyers, 24 frigates and 5 submarines.

The Navy has an estimated personnel strength of over 30,000.

The Naval Self Defence Force has its own air arm, having at least 200 aircraft.

Morale

After a hesitant, bashful start there are signs that the old traditional military spirit and pride are breaking through again. As the armed forces are manned by volunteers, and knowing how well the Japanese fought during the Second World War, one would automatically assume that morale is high, but some reports indicate that this may not be so.

All along, the armed forces have realized that they could not exist if the population, in its new mood, turned actively against them, and so have tactfully avoided the limelight and kept clear of any controversial issues whilst the anti-military mood prevailed. The Defence Agency, nominally civilian itself, has done its best in a quiet way to sell the forces to the nation, and is slowly succeeding. For example, the Army has built roads, sea walls and done extensive rescue work in the typhoon disasters.

It has been frequently suggested that some years in this anti-military atmosphere have affected morale, and give the forces an inferiority complex and an apologetic outlook on life, but of late there are signs that this may not be true.

War Potential

America would like to see Japan filling the role of forming a vital link in the chain of islands which form her outer defences, and which include Formosa and the Philippines. She hopes that Japan will develop into a strong, sure bastion against Communist infiltration.

Is Japan able and willing to play that part?

Japan rose, became powerful, and in spite of having only a comparatively small population and springing from a small country, she once controlled huge areas of Asia. The question is can she become strong

again, now that all ideas of keeping her disarmed have faded away? Previously she relied to a large extent upon the products and labour of the overseas territory she occupied for her ability to wage war, such as the industrial complex of Manchuria.

However, her economic recovery, especially from the postwar crushing attempt to eradicate her war industries, has been remarkable, and has been likened to that of Western Germany. By Asian standards, she is stable and even prosperous. Two factors have undoubtedly helped her, one of which is the fact that America has poured in the average of about $178 million a year to aid her recovery, and the other is the Korean War, which gave such a boost to her industries.

The position now is that all her light industries are thriving, and in fact all her former heavier war industries could, with American aid, be quickly developed and expanded. Some, for example shipbuilding and aircraft manufacture, are already in a healthy state. Her population is sufficiently large to man these potential industries, and still have ample left over for the defence forces.

Although small at the moment, her armed forces could be quickly expanded by conscription, a characteristic not unfamiliar to Japanese life. American economic aid would be necessary to help, but clearly Japan could be built up into a strong power again, both from a military and an economic point of view.

The question also remaining is, if Japan did become powerful, would she be actively anti-Communist, remain obstinately neutral or would she slip behind the bamboo curtain?

The new flourishing spirit of democracy in Japan, planted by America after the war, has allowed vociferous Communist and other left-wing elements to come to the fore to shout their opinions and to try and intimidate those who do not agree with them. They are working to at least keep Japan neutral and not to become entangled in any military alliances with the West. The scenes at the passing of the revised Japanese-American Treaty, in June, 1960, which caused the cancellation of President Eisenhower's visit, are an example.

Politics have no part in a military article, but it is thought, and hoped, that this anti-Western, anti-militarist and pro-Communist element are not truly representative of the Japanese people, and do not obtain control of Japan's destinies. If it does, the picture may not be so hopeful, but working on the assumption that the bulk of the Japanese people have not changed fundamentally, there is little need for pessimism on this score. Japan is traditionally antagonistic towards China, and also to Russia, and has never really been friendly with Korea, which leads one to believe that there is no real reason to think that she will suddenly drop out of the "island chain of defence" against Communism.

Conclusion

The Japanese war potential is certainly considerable. She has a small but flourishing defence force, built on sound lines, capable of rapid expansion, and backed by sufficient industry to maintain it in the field. There is little reason why Japan should not become the strongest link in the "island chain."

THE DEVELOPMENT OF MINERAL STRATEGY IN THE U.S.S.R.

Captain J. P. Morgan
Royal Australian Engineers

MINERAL raw materials, labour and technology form the basis of industrial production and provide the means for national industrial growth. Mineral raw materials also permit nations to trade on world markets and so affect not only their own internal economy but the economy of other trading nations, some of which will have sympathetic trade agreements. The Soviet Union has begun to employ all elements and aspects of minerals technology to convert, internally, from an agricultural to an industrial economy and to place itself in a position where the economic stability of competing nations can be threatened.

One pattern of development which has manifested itself in recent years is the deployment, on the world market, of minerals and metals which can affect major industrial undertakings in other countries. The deployment of these economic resources has not been a sustained effort, but rather attempts to influence world markets by sudden surges of supply of minerals and metals and so influence world prices with a view, no doubt, to affecting adversely the economy of nations of the Western Bloc.

The loss of lives and decreased birth-rate during World War II cost the Soviet Union a potential labour force of 15 million persons. The full impact of this deficit in labour will become apparent between 1960 and 1970, as the Soviet birth-rate has not reached its pre-war level. The Soviets have attempted to cushion this crisis by transferring emphasis from labour to technology, and the pattern of their tertiary-level training in the technology of minerals demonstrates this as clearly as if the Soviets had advertised their entire programme to the world.

So great has been the economic development of the Soviet Union that today it is established as the world's second largest industrial power; second only to the United States. No nation could accomplish such an achievement in such a brief space of time (four decades) unless it had within its area of political influence many basic mineral raw materials. Of course the other requirements, the training of personnel to a high level of technical competence and associated investment of "capital" in mineral industries, have been necessary.

The Soviet mining industry is young, when compared with that of the Western Bloc, however with intensive development and expansion it is rising in importance and could easily become a competitive control on world markets. On these markets Soviet influence will be applied as an economic weapon of the cold war, and it will always have potentiality for further application in the event of small localised conflicts or a major global conflict.

There is of course another aspect

which is worth consideration; should the Communist Bloc of nations, i.e., willing and unwilling satellites, demand standards of living on a par with those of the more important Western nations, then the known mineral resources of the Soviet Union would not have a long life. However, the Soviet is well known for its ruthlessness when concerned with the welfare of the corporate state and, therefore, it is unlikely that their peoples or those of their satellites will be permitted to have what they might demand.

The U.S.S.R. is now developing satellites which are some distance from their State boundaries, some of them in close proximity of major nations of the Western Bloc. The development of these distant satellite states will provide not only military bases close to potential targets but will provide also sources of raw materials and may even become consumers of Soviet goods. In addition, such satellites are centres from which propaganda and sabotage operations may be launched.

Soviet policy relating to minerals and their application internally and externally is not clear, as yet. It can be assumed, however, that "Soviet strategy of minerals" will have far-reaching consequences, both during the cold war and in the event of a war of conflict.

Although the Soviet Union is known to be short of certain light metals, this fact did not prevent that nation from applying these metals to the world markets, and the consequent results within the Western Bloc were a suspension of finance for the development of new projects confusion in international shipping which transports the raw material; a direct effect on the economy of small nations within whose boundaries the mineral deposits were to be found, in that their national economic equilibrium was upset by a sudden suspension of exports. National construction projects for the generation of power for metal refining and processing purposes were halted temporarily until the situation became clear. In some cases the morale of shareholders suffered and share values declined, thus providing an opportunity for international interests with Soviet control or sympathy to "buy in" on a temporarily suppressed market. National stock-piling programmes were affected and in some cases Governments were on the point of considering subsidies should this be a sustained economic effort from Russia. There is no doubt that minerals and monopoly have become another formula of Soviet strength.

In Australia with six schools of mining engineering we are producing an average of 17 mining engineers per year, another 21 graduate from Schools of Mines and Technical Colleges within the country, thus making a total of 38 per year. In the U.S.A. from 34 schools dealing with general mining, 204 graduates are produced each year. Within the Soviet Union from 24 schools dealing with general mining, 5,290 graduates are produced a year. However, a considered viewpoint is that Soviet engineering is so highly specialised that it is impossible to make a general comparison between Soviet academic degrees and those of say the United States and Australia. Alexander Korol, of M.I.T.'s Centre for International Studies, believes that in some cases a five-year Soviet engineering student is far too specialized to qualify as more than an advanced technician should he be transferred from his present sur-

roundings to a Western nation. While such an assessment is important, it must be obvious that the large number of graduates produced will give the Soviet a lead in the technology of minerals within the next one or two decades.

The Soviet Union possess the world's second largest iron and steel industry, and it is known that there is no shortage of mineral fuels and the principal mineral ingredients necessary to make steel. The greatest shortage in the U.S.S.R., as well as within the Soviet Bloc, is copper. Communist nations buy approximately £30 million worth of copper annually; about 66% of it comes from the United Kingdom.

Domestic bauxite resources (for production of aluminium) are relatively small and poor quality, and the U.S.S.R. has been importing bauxite from Hungary and China. Also there is an apparent shortage of borax.

Practically all the available information on the Soviet Union's resources of fissionable materials predates the Atomic Age and is now not reliable. The pre-World War II reports indicate a virtual absence of high-grade (African type) uranium deposits. Therefore the establishment of Soviet influence in Africa could be aimed at supplementing their resources of these mineral materials. It is known that the Soviet Union has attempted to assure itself of a supply of fissionable ores and concentrates by exploiting the re-resources of the satellites on its boundaries.

With respect to industrial diamonds there has been a discovery and a subsequent development of a large diamond deposit in an uninhabited area of Siberia. Also the Soviet Union has large resources of mineral fertilizers.

The Soviet Union has made public a seven year plan and a tentative fifteen year plan for the economic development of the country. The principal feature of these plans is that the U.S.S.R. expects to expand its economy at about 7% annually. Since these plans were announced, after a known survey of mineral resources within Soviet boundaries, it is assumed that domestic and satellite production plus imports from Western nations can provide the necessary raw materials. It is from such announcements that some predictions relating to Soviet discoveries and developments can be made. Because of the large volume of research and the pressure on Soviet scientists, their efforts could result in premature and perhaps inadequate conclusions. It cannot be denied, however, that great progress is being made in the mineral industries of that nation.

National planning and the direction of all national energies to the maintenance of objectives is possible under Communist rule. The material accomplishments of the Soviet, in this and other fields, provide the media to implement the proclaimed policy to wield power in all aspects of world affairs.

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COURSEMANSHIP
OR
HOW TO PASS A COURSE WITHOUT ACTUALLY WORKING

Major L. G. Clark, MC
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(With Apologies to Stephen Potter)

THIS article is dedicated to those souls who have profited from the postwar method of instruction whereby students meet together and share their knowledge among themselves, with the instructor butting in only if he knows something applicable, such as in the modern tactics course. Gone are the days when a student had to study hard to succeed. By an astute application of the new system, it is possible to qualify brilliantly at a military course with a bare minimum of effort and still enjoy life. This is the art of a Courseman.

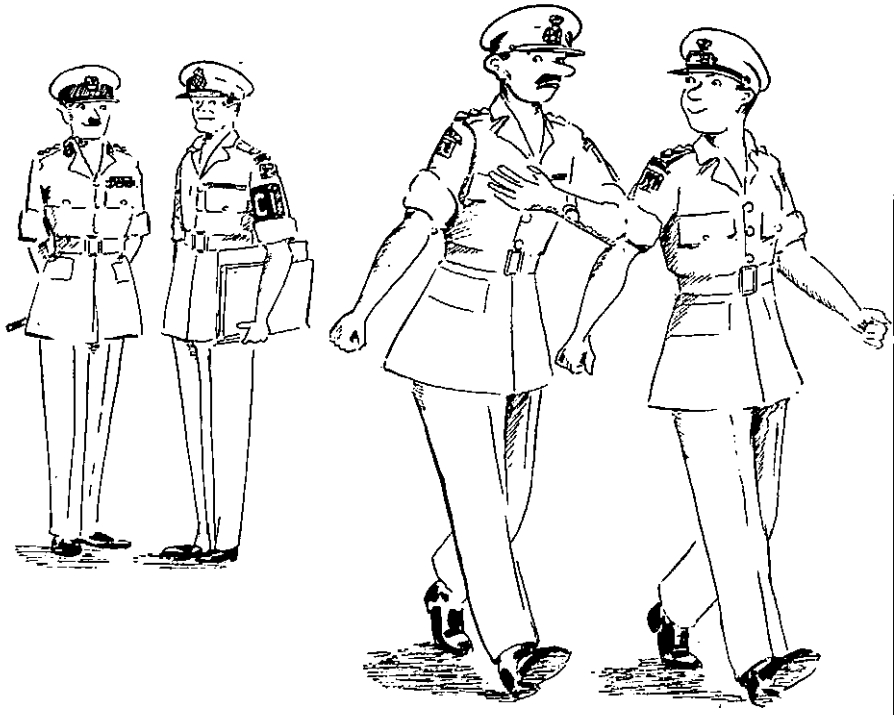
Pre-Coursemanship

It is essential for a Courseman, when first arriving at a course, to make a favourable impression. This can be best done by his conveying the idea that:—

(a) He already knows his next posting, and
(b) It involves his promotion and so,
(c) His results at this course don't really matter at all.

It will further help the Courseman if the Staff gain the impression that this next posting is in the Military Secretary's Office at a Headquarters. Who in the army would not befriend a person destined for this office? It is important that the Courseman does not make a direct statement on any of these matters, for it then can be checked by any disbelievers. Let it be vague, so that no one will ever really know for sure? The Courseman will surely be given the benefit of any doubt that may exist in the staff's mind.

It is of great help for the Courseman to have an accent, some stock idiomatic phrases or an air of vagueness which suggests some deep learning. If during the course, a Courseman is pressed for the answer to a problem about which he hasn't a clue, he can always give a forceful reply in a broad accent, a flurry of



high-sounding words, or an air of mysticism, which neither the instructor nor the fellow students will understand. There will be much wise nodding of heads and the next problem will quickly come up. No one will be so impolite as to ask for a repetition, and the Courseman will be credited with a correct answer.

DS-Manship

To do well, the Courseman must fully appreciate the position of the Directing Staff. A person posted to the staff of a military course has inevitably attended the same course as a student, and looks forward to a restful period coasting on the strength of knowledge previously gained. He is, further, quite opposed to any amendments or changes since his time, partly because it means some additional study for him, but mainly because he didn't think of them himself.

The Courseman must ensure that he is fully conversant with the background of his particular DS and be careful not to ask any questions or sponsor any activity which is outside his DS's scope, or which might involve his DS in any great effort to look up the answer. The Courseman may find that his DS has a mania for some particular phase of military activity, for example, use of helicopters. In this case the Courseman may well read some foreign book on the subject, and have some interesting facts ready for use as a pleasant diversion whenever the DS is pressing a difficult problem on him.

Syndicate Discussion

This type of activity invariably involves the student in having to prepare the night before lengthy answers to quite difficult questions. If there are six questions posed, the Courseman will prepare the answer to one only, and then go to a party. His concern next day is to:—

(a) Avoid having to give an answer to any questions at all, or
(b) Give the answer to the question he has prepared.

He may achieve the first by asking the DS an innocent question on the subject under discussion before the period gets under way. (He must first be sure the DS will know the answer.) Using a subtle technique, he should prolong the DS's answer as long as possibe, using counter questions and comment if necessary. By the time this is over the DS will be so sick of the Courseman's voice that he will not want to hear him again for some time. There is an alternative to this gambit. After the DS has heard the solution to the first problem from some luckless student, the Courseman should seize the opportunity to give his comments, the vaguer the better, on the solution, occupying as much talking time as possible. With a little luck he'll soon exceed his quota of time for the period. This must periodically be resorted to, to allay any suspicions the DS may have about him.

The Courseman must avoid answering questions he hasn't prepared, and ensure he is asked the question for which he has a brilliant answer. To avoid any question, the Courseman should arrange his reference books neatly in front of him, ensuring they are all closed but have numerous reference flags sticking from them, sit alertly to attention, and radiate confidence in all directions. No DS in his right mind will ask the Courseman this question, for he obviously has the solution off pat. This would cut out any syndicate discussion and would not allow

the DS to show he also knows something about the subject.

When the Courseman's prepared question comes up he will scatter his books untidily in all directions, ensuring they are open at inappropriate places, loosen his collar and tie and ruffle his hair, feverishly whisper questions to his neighbour, and thus give the impression that the last thing in the world he wants to happen is to be asked the question. Watch the DS lion pounce on the student prey ready for the slaughter: Watch the DS sway back in amazement and awe when the Courseman comes up with a brilliant solution: Watch the DS think—"Truly, here is an intelligent student."

Lectures

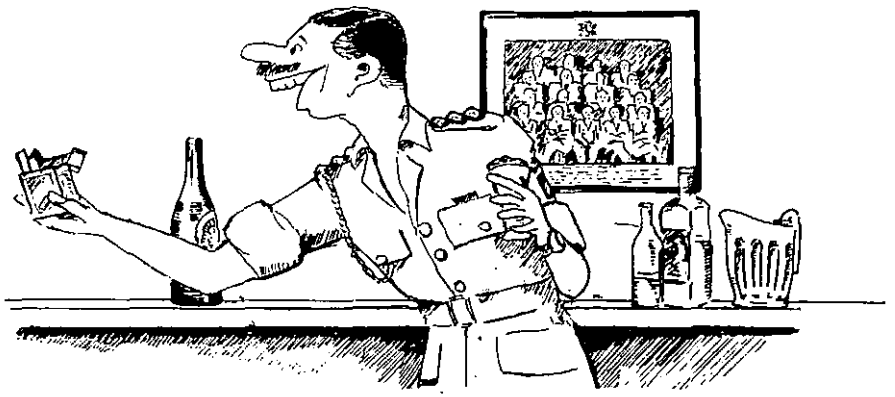
A lecture in a central group allows the Courseman an opportunity to improve his position. The Courseman will spend a few minutes before the lecture preparing a learned question on a subject allied to the one being covered; a question calling for an opinion which he is fairly certain the lecturer can give and would not directly have covered during the lecture. This will be asked, with great effect, at question time at the end of the lecture. This question:—

(a) Puts the Courseman in good favour with the lecturer because he will think his subject has been put over with great success.
(b) Allows the Courseman to sleep during the lecture.
(c) Impress the listening DS, who will wonder why they didn't think of the question first.

Fellow Studentmanship

The Courseman knows that whereas he can delude his DS most of the time, his fellow students will soon catch on to his game. It is absolutely essential that the Courseman cultivate the friendship of his fellow students at all times if he is not to risk exposure. This can be achieved by:—

(a) Coming to the rescue of a fellow student by diversionary tactics when the DS has him on the spot with a difficult problem.



(b) Frequent production of satisfactory quantities of drinks and cigarettes. This makes the fellow student think the Courseman is a pretty good type and vaguely implies that the fellow student is in the Courseman's debt.

(c) Always having a good word to say about a fellow student's solution no matter how cockeyed it is, ensuring, of course, that agreement is not implied.

Results

And so, when the course comes to a jolly conclusion, the Courseman will find himself high on the list of graduates (provided, of course, no misguided soul introduces a written exam) and highly thought of by both DS and students (except those students who failed; the Courseman, alas, will never again be a friend of theirs).

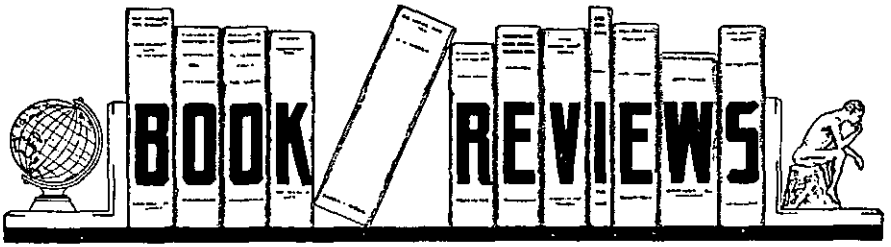
You may well ask, "Will not the Courseman be at a disadvantage at his future postings when he is required to demonstrate the knowledge he was supposed to have gained during the course?"

And, in reply, I ask you, "*Who* is there, having attended a course, has found his newly-acquired knowledge of immediate and decisive significance?" That is another challenge to the Courseman.

COMPETITION FOR AUTHORS

The Board of Review has made the following award of £5 for original articles published in the AAJ:—

December 1960—"The Peace Wish." by WO C. M. D. Flinn.
January 1961—"Communist Activities in Asia and the Pacific—Part I," by Staff Sergeant P. G. Giffins.



THE MEMOIRS OF LORD ISMAY (William Heinemann Ltd, 317 Collins Street, Melbourne).

One of the most outstanding characteristics of World War 1 was the British failure to establish firm and co-ordinated direction of the war effort at the top. That aspect of the war is a sorry story of the almost unrestricted interplay of divergent, sometimes antagonistic, political, service and departmental interests. Failure to secure co-ordination and singleness of purpose at this level was, of course, sharply reflected in the strategic field. It led to the expenditure of vast military and economic resources on operations which flagrantly violated the principle of concentration; it permitted the obstinate pursuit of a strategy which in the long run had very serious effects on Britain's economy, military strength and social structure.

The lessons were not lost on Sir Maurice Hankey, Secretary to the Cabinet and Secretary of the Committee of Imperial Defence. Immediately after the war Hankey set about devising machinery to give the closest possible degree of integration in the direction and conduct of war at governmental level. His patience and farsightedness paid handsome dividends when the next great conflict was thrust upon us. If the Navy and the Army had assimilated the tactical lessons of World War I half so well as Hankey read the politico-strategic lessons, World War II might have taken a different course.

Colonel Hastings Ismay joined Hankey's staff as Assistant Secretary of the Committee of Imperial Defence in 1925. When Hankey retired in 1938 Ismay succeeded him as Secretary of the Committee of Imperial Defence, while Hankey's other office, Secretary to the Cabinet, was taken over by Sir Edward Bridges. Ismay occupied this position until after the close of hostilities in 1945. During the war he was also Chief Staff Officer to the Minister for Defence, Winston Churchill, and his representative on the Chiefs of Staff Committee. After the war he became in turn an assistant to Lord Mountbatten during the period of the grant of independence to India and Pakistan, Secretary of State for Commonwealth Relations, and Secretary-General of the North Atlantic Treaty Organization.

Ismay was thus at the centre of affairs throughout a turbulent and decisive turning point in history. But anyone who expects to find in his book any startling revelations, any tittle-tattle or scandal, will be disappointed. And so will anyone who expects to find a sparkling piece of literature. Ismay's writing

reflects his personality—the perfect staff officer. In simple, straightforward language he gives a clear picture of the events he describes, unclouded by irrelevancies. His contribution to the literature of this aspect of the war lies in the fact that for perhaps the first time we are given a comprehensive account of staff work at the highest levels. He is so modest, so self-effacing, that it all sounds delightfully easy. Fortunately we have it on the authority of Churchill himself that Ismay's skill as a staff officer contributed powerfully to ultimate victory.

While Ismay adds little to the story of the numerous conferences held during the war, his detailed account of how inter-service and inter-departmental co-ordination was achieved is new and informative. The pre-war organization and work of the Committee of Imperial Defence is described in detail. And he fills in the details of high level staff work during the conflict which are omitted, or only lightly touched upon, in other accounts. Perhaps the most instructive aspect of Ismay's work during the war is the surprisingly small size of the staff he found necessary to enable him to discharge his heavy and varied duties. Churchill and Ismay managed one of the greatest conflicts in which their country ever engaged with a Defence Department of about a dozen officers. Now it seems to take much more to manage much less.

In common with several other eminent British authors, Ismay does less than justice to Australian statesmen and soldiers in his reference to the return of 1 Australian Corps (less 9 Division) from the Middle East in 1942. Recording the refusal of the Australian Government to agree to Churchill's request (perhaps demand would be a more appropriate word) to switch the leading division—the 7th—to Burma, he gives the impression that that Government acted from motives of pure selfishness and in detriment to the allied war effort. Like the other authors, he omits to say that the decision was taken on the advice of the Corps Commander and the Australian General Staff on strictly military grounds. The Corps Commander knew that his ships were not tactically loaded, and considered that the speed of the Japanese advance on Rangoon would not give him the time required to get the several echelons of the division into anything like fighting trim. As the Chief of the Australian General Staff saw the situation, there were no other formations available, or likely to become available, sufficiently well trained and equipped to cope with the assault which he considered to be imminent on our nearer approaches, perhaps on the mainland itself. To suppose that any Australian Government, in the face of these recommendations, could have acted differently is to ignore political realities. Events proved the soundness of both appreciations. Ismay and others who ignore the facts as seen from the Australian point of view ought to remember that at an earlier period of the war the British Government, despite the entreaties of their allies, felt compelled to conserve the strength of the RAF Fighter Command for the close defence of the United Kingdom.

However, this aberration does not detract from the value of Ismay's

book. As the record of the work of a staff officer in peace and war, it is instructive reading for the soldier, indeed for everyone concerned with defence machinery and the direction of the national war effort.

—E.G.K.

THE SKY SUSPENDED, by Drew Middleton (Martin Secker and Warburg Ltd, London, and William Heinemann Ltd, 317 Collins Street, Melbourne).

In his preface to his great classic "The Fifteen Decisive Battles of the World" Sir Edward Creasy defined a decisive battle as one in which, if the decision had fallen the other way, subsequent history would have followed a totally different course. If Creasy were alive today he would certainly agree that at least one battle since Waterloo fulfils his definition—the Battle of Britain.

After the fall of France in 1940 Hitler was faced with the unexpected problem of how to clinch his victory. He had calculated, and the military staff of yes-men who constituted his headquarters had also calculated, that when this stage was reached the British would realize that they had lost the war. The British in fact did nothing of the kind. Clearly something had to be done to restore them to reason, and the only course open seemed to be the invasion of the British Isles. However, to give an invasion the slightest chance of success, it was essential for the Germans to have absolute air supremacy over the area of operations. And to win that supremacy it was necessary to defeat and destroy the RAF Fighter Command. The battle that followed is known as the Battle of Britain.

Throughout the battle the Luftwaffe enjoyed numerical superiority, both in fighters and bombers. Since their airfields were spread from Norway to France, they had the advantage of being able to attack the relatively congested RAF layout from several different directions simultaneously. Their air crews were brave, resolute and flushed with victory. Against this Fighter Command had slightly better aircraft, and somewhat more skilful pilots. The RAF also had a radar warning screen, at that time rather crude, but the Luftwaffe had none at all.

Unlike most land battles, the fighting did not begin with a sudden, massive assault. All through June the Luftwaffe launched small, scattered attacks against British ports and other targets. In the early days of July the forays increased in number and size, and gradually extended inland. On 10 July the Luftwaffe massively attacked Fighter Command's airfields in southern England. The battle proper had begun.

In the following weeks Fighter Command fought to defend the airfields and communications necessary for operating its squadrons; the Luftwaffe fought equally hard to destroy them. Losses on both sides were heavy, losses which, because of their slender resources, were more, much more, serious for the British than for the Germans. At times extended to the utmost limit, Fighter Command nearly always managed to take heavy toll of their adversaries, though they could not prevent serious damage to their installations.

The Luftwaffe weakened first and shifted the weight of their attacks from the airfields to the city of London. By using bomber formations very heavily and closely escorted by

fighters, they sought to bring Fighter Command to battle on terms more favourable to themselves and, at the same time, terrorize the people of London into forcing the British Government to sue for peace.

Fighter Command swiftly adapted their tactics to meet the new threat, though they could not always prevent the German bombers from resolutely pressing home their attacks. But they took such a heavy toll of their adversaries that the Luftwaffe switched to night bombing. With the crude night-fighting equipment then available Fighter Command was powerless to turn back these assaults, while the anti-aircraft batteries were too thin on the ground to have any appreciable effect. The German planners thought that at last they had found the recipe for victory, that they would be able to win without the invasion. But they had reckoned without the Londoner. Professionally too narrowly learned, they had failed to appreciate the physical and moral toughness of the people they sought to bludgeon into surrender. The RAF won the first phase of the Battle of Britain, the Londoners won the second. The Luftwaffe failed to either destroy Fighter Command or to subdue London. Hitler abandoned the struggle and turned his face eastwards to Russia. Britain remained unconquered, to give time for the build-up of the great alliance which finally destroyed the Nazi power.

Throughout the conflict Drew Middleton was an American journalist representing Associated Press in London. He saw as much of the battle as anyone on the ground can see of a prolonged struggle in the air. He visited the fighter squadrons and the operational control stations. He discussed the day-to-day fighting with pilots and commanders. He observed London and her people under attack. From these first-hand experiences, and from subsequent close study of the war diaries, orders and records of both sides, he has put together a very clear and readable account of the battle. He enables us to see the struggle from both sides of the hill, to see what both the adversaries tried to do in each phase, and to appreciate the reasons for their successes and their failures. From the soldier's point of view it is the best account of this tremendously important historical event that has yet appeared. Although it is primarily a book about an air battle, the thoughtful soldier will find many military lessons in its pages. Not the least of them is the spectacle of the evil results which attend the efforts of those who allow their minds to become encased in a cocoon of professional techniques.

The Battle of Britain was the first great air battle ever to take place, and it will probably be the last of its kind. It would be a pity to miss reading Drew Middleton's account of it.

—E.G.K.

THE CONTINUING STRUGGLE, by Richard Louis Walker (Athene Press, Inc, New York, USA).

Reviewed in the Military Review, Command and General Staff College, Fort Leavenworth, Kansas, USA, by Major Eugene P. Forrester.

Recent world events have pointed more and more to the growing strength of Communist China. So much has been written recently about Mao's China that it has be-

come difficult to distinguish fact from propaganda, whether offered by writers of the East or West. In this book Professor Walker has tried to put the history of Communist China in proper perspective by showing what gains have probably been made and what can be expected in the future developments of economy and political structure.

After only a few pages most readers will feel they are getting information prepared by a rightfully acknowledged expert on Red China. Extremely good use has been made of timely articles emanating from Communist China which shed light upon the picture they are trying to paint for the outside world. However, some of these writings could have been more carefully extracted without losing their essential value or burdening the reader with a considerable amount of detail.

This book is not light reading. Exhaustive documentation and extensive research have, however, produced a splendid handbook of genuine value to anyone interested in understanding the growth of Communism in China. Professor Walker has done much to "debunk" the myth that Red China can be expected seriously to rival economically either the United States or the Soviet Union soon. But he has also resisted the temptation to ignore the dynamic influences prevalent in Asia which must be reckoned with by the Free World.

THE COMMUNIST PERSUASION

—A Personal Experience of Brainwashing, by Eleutherius Winance, OSB. Translated by Emeric A. Lawrence, OSB. (P. J. Kennedy and Sons, New York, USA.)

Reviewed in the Military Review, Command and General Staff College, Fort Leavenworth, Kansas, USA, by Lieutenant-Colonel M. Nelson.

Against a background of 15 years in China, the author has vividly recounted his personal experience with the gravest threat ever to face mankind—Communism.

Personally undergoing and observing Hsio-Hsi (indoctrination) at regular four-hour meetings three times a week, the author has added to the knowledge and understanding of this weapon which is still greatly underrated by the people of the Free World.

The techniques used and terrifying results obtained are clearly apparent as the author places the reader by his side in China during the summer of 1949. From then until his expulsion in 1952 the reader sees through the eyes of the author what happened in China and, more important, how.

THE SINAI CAMPAIGN, 1956, by Major Edgar O'Ballance (Faber and Faber, 24 Russell Square, London).

A good deal has been written about the disastrous attempt of the British and French to overthrow the Nasser regime in Egypt and regain possession of the Suez Canal in 1956. Very little has hitherto appeared about the concurrent effort by Israel to relieve the pressure constantly exerted on her frontiers by the Arab states which surround her on all sides except one. Major O'Ballance's book fills this gap in our knowledge of these events.

Israel is surrounded on all sides except her Mediterranean coast by bitterly hostile Arab states who have

sworn, individually and collectively, "to destroy this thorn in the heart of Islam." For the Arabs the conflict is total, the total destruction of Israel. For Israel only the Mediterranean is neutral. On all other sides tides of deep hatred surge around her frontiers.

Until Nasser came to power in Egypt the Arab states lacked cohesion and central leadership, a disability which the new dictator set out to remedy as part of his bid for the hegemony of the Arab world. The munitions he received from Russia enabled him to boast that his army was the best-equipped fighting force in the Middle East, and there was reason to believe that its training had improved since 1948. The Israelis believed that the bulk of the Egyptian Army, including most of its armour, was stationed in Sinai, and suspected that much of the new Soviet equipment was stored there.

In October 1956 Nasser appeared to have secured Arab political and military cohesion by signing a pact with Syria and Jordan, under the terms of which these two countries placed their armed forces under the command of the Egyptian commander-in-chief. In the Israeli view this brought matters to a head, for if the three Arab countries attacked suddenly and simultaneously they might not even be able to complete their mobilization. Economic considerations forbade them matching the pact with complete or partial mobilization maintained over a long period. As they saw it, their only course was to break the ring by attacking at their own selected moment. If they could inflict a decisive defeat on Egypt, the alliance would remain subdued for a long time. The pact establishing the joint Egyptian-Syrian-Jordanian command was announced on 22 October. The Israelis immediately took their decision to attack, and fixed D-day for 27 October. In the whirlwind campaign that followed they broke the Egyptian Army to pieces and captured every place of importance in the Sinai peninsula.

Major O'Ballance's account of this short war is a model of what a campaign study of this kind should be. After tracing the events leading up to the Israeli decision, he gives us a clear presentation of the opposing forces. Through each of the main phases of the campaign we follow the fortunes of the Israeli columns in turn, with frequent pauses to note the changes in the general situation. This treatment enables us to examine details of the fighting without losing touch with the general course of events. Very often books of this kind are marred by bad or insufficient maps. Major O'Ballance has avoided this frustrating defect. He has given us enough maps, uncluttered with unnecessary detail, to enable us to appreciate the course of each argument with the greatest of ease.

Some Australian soldiers who served in the Middle East may from their recollections of Palestine and the Egyptian Army of 1939-42, be inclined to write off this campaign as of little interest to us. On the contrary, there is much that we could learn, more perhaps than many others, from a study of the Israeli military problem and the steps they took to overcome it. If the Egyptian Army was not a really formidable offensive force, its equipment was superior to that of its opponents, while its defensive positions were

tactically well-sited and strongly constructed. How to break them, and break them within the time imposed by the general strategic situation was by no means an easy problem. We could learn a great deal from studying the Israeli solution in all its aspects. To do so we need go no further than Major O'Ballance's book.

—E.G.K.

MY ROAD TO BERLIN, by Willy Brandt (Peter Davies Ltd, London, and William Heinemann Ltd, 317 Collins Street, Melbourne).

In 1946 Winston Churchill said in the House of Commons: "In Germany there lived an opposition which was weakened by their losses and an enervating international policy, but which belongs to the noblest and greatest that the political history of any nation has ever produced. These men fought without help from within or from abroad —driven forward only by the restlessness of their conscience. As long as they lived they were invisible and unrecognizable to us, because they had to camouflage themselves. But their death made the resistance visible."

One of the members of the German opposition who survived the hurricane of Nazi persecution is Willy Brandt, now Mayor of Berlin. Born in 1913, Brandt joined the Social Democratic Party in his early youth and became a professional politician and political journalist. From the beginning he tempered his idealism with a strong dash of realism. While never deviating from his fundamental aim of improving the conditions of the masses, he has always acted with an acute perception of what is possible and what is temporarily unattainable.

In 1933 he was forced to flee from Germany and landed in Norway. Unlike so many expatriates, he wasted little time in nostalgic yearnings for his homeland. Instead he found an outlet for his energy and political abilities in working for the Norwegian Labour Movement and in journalism. Eventually he became a Norwegian citizen, but when the Germans invaded Norway in 1940 he was forced to move to Sweden. From this base he worked actively to bring about the downfall of Hitler through his writings and his association with the German underground.

After the war Willy Brandt returned to Berlin as a press attache at the Norwegian Embassy. Later he regained his German citizenship, re-entered politics, and in 1957 was elected Governing Mayor of Berlin.

To anyone not versed in European politics the chief value of this book lies in the view it presents of events since 1930 to 1960, as seen through the eyes of a highly intelligent man who is at once a patriotic German, a socialist, an anti-Nazi and an anti-Communist. Perhaps because of his restraint, Herr Brandt's comments on Allied post-war policy and action forcibly remind us once more that it is not enough to win your war, that mere military victory is not an intelligible national policy. And after reading this book one understands something of the complexities of the Berlin problem.

—E.G.K.