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ARMY QUARTERLY

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ἡ δὲ βασιλεύς αὐτῶν

EDITORIAL.

Keep the Reserve Officer at Home.

A CONTRIBUTOR to this number touches on a very grave aspect of the problem of re-establishment of ex-officers in civil life. Officers have returned and are returning to civil life now that the conditions necessitating their retention have passed away. A plea is made that the special claims of such should not be overlooked in the actual working of the machinery set up by Government for the provision of necessary personnel in civil departments. The general feeling is that there is discrimination against them at the moment. The following illustrates the hostile mentality of which officer-candidates justly complain:—

Arising out of a recent selection for a medical appointment, it is understood that the freely-voiced opinion of a member of the Selection Board responsible for the nomination was to the effect that a Military surgeon (with his wide experience, absolute professional responsibility, and extensive administrative training) was worth only fifty per cent. of what he was pleased to designate his professional counterpart in a civilian Hospital, though the latter is in the main in professional leading-strings, has little professional responsibility, and no administrative opportunity.

Though the Great War ended ten years ago, one need not travel 1,000 miles to discover a country in which the applicant for a similar appointment would find service during that war an essential condition of candidature. The reverse seems to hold true here. To have given service during the period of consolidation of the State can be a hindrance, not a help, to a candidate now seeking civil appointment.

The State, in its desire for an impartial and impersonal system of appointment has virtually deputed all its authority to a subordinate body, and must occasionally feel like Aristides the Just accosted in the market-place by the illiterate voter, when asked to write its own name in the person of its ex-officers on the shard of economic ostracism. It is to be hoped that, in future, a wider interpretation of terms of reference will prevail among those immediately responsible for appointments in all branches.

Fiat Justitia.

The following is an extract from the leader of an Irish daily newspaper on the August Horse Show:

“From a spectacular point of view, the chief attraction at the Show is the International Military Jumping Competition for the Aga Khan trophy. For the first time since this contest was inaugurated the Irish Army has won a signal victory. The visiting Officers from Great Britain, France and Belgium, who honoured the country by their presence, won unstinted admiration from the crowd for their skill and sportsmanship. There was, however, no doubting the superiority of the Irish horses and horsemen, whose victory will do much to enhance the reputation of our Army.

“On Thursday night the Minister for Defence (Mr. Desmond Fitzgerald) expressed the hope that in the immediate future it would be possible for the Irish

Army to take part in other military competitions. An Irish team would, he said, soon visit Belgium, France and England. Such a policy will, we believe, have the hearty approval of the public. Every country has now come to recognise that the ambassadors of sport no less than the envoys of Government can do a great deal to raise the prestige of the nation whose honour they uphold. But sportsmen, whether they put on spurs or running shoes, must receive more substantial encouragement than the plaudits that greet their victories. This is especially so in the case of horsemen, whose form of sport is more costly than any other. The Officers of the Irish Army are not drawn from a wealthy aristocracy, they have no private reserves from which to draw, and their salaries and allowances are by no means generous. The Officers who have brought this latest honour to their country are the more deserving of praise and gratitude because they have relied upon their own resources, and have not received the public encouragement that might be expected from official quarters.

“ In the circumstances, it is not unfair to ask what manner of support the Minister for Defence proposes to extend to those who, he says, will represent the Irish Army in competition abroad? We can find in the current year’s estimates no item suggesting any provision for encouragement of the kind that is necessary. If Officers are to do what is not only a national service but a national duty in advancing the country’s reputation in sport, and in extending moderate hospitality to visiting officers from abroad, they must not be asked to bear all the responsibility themselves. These matters can and ought to be attended to without placing any excessive burden upon the finances of the State. Niggardliness should not be mistaken for economy; it is often economy’s most dangerous foe.”

We thank the paper in question for its appreciation and for emphasising the importance of this particular form of sport, but we feel that the interpretation attaching to the strictures is not warranted by facts.

To give credit where credit is due, the State does not send Army Officers abroad (jumping team or others) without making provision for the discharge of social duties in a manner befitting their status. Nor has it ever been lacking in the discharge of the duties of hospitality to foreign officers (including jumping teams) visiting the country.

If the writer merely wishes to imply that certain allowances should be increased to individual officers (e.g., maintenance and uniform allowance, which is undoubtedly inadequate in the case of members of an equestrian team) we willingly subscribe to the view. The procedure here would be for the Officers affected to make representations through ordinary official channels, and no doubt the case as presented by them would receive full and sympathetic consideration.

If the writer of the article in question wishes to imply that the State is deliberately niggardly in dealing with expenses incidental to the social life of officers representing the country abroad—that is emphatically not the case.

Multum in Parvo.

Attention is drawn to the inclusion in this number of a purely technical article from Army Medical Services—and the opportunity is availed of to stress the fact

that such contributions are appropriate and welcome. The Army is not large enough to maintain more than one Journal, and consequently that one Journal must cater for all, the range of its repertoire extending from technical articles of a relatively limited and local appeal to general articles of cosmopolitan interest.

NOTICE TO READERS AND SUBSCRIBERS.

As the number of subscribers is necessarily limited, an appreciable part of the revenue of this Journal is derived from Advertisement. To manifest its efficacy as an advertising medium, readers are requested to return the enclosure in the present number duly completed, to the Manager for transmission to the Firm interested. The annual subscription is now due, and should be forwarded to--

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WOLFE TONE COMMEMORATION, 1928

ADDRESS BY MINISTER FOR DEFENCE.

“SOLDIERS:

ONCE again we meet here to celebrate the memory of Wolfe Tone. We honour his memory because he lived, worked and died for Ireland. He is not the only one of whom this may be said. Their name is multitude. But generations of Irish people, with an instinct that was not blind, with a judgment that was unerring, chose Tone as Captain of all those who have died for our country, as the very symbol of service of Ireland. We accept that judgment of the Irish people, and we celebrate Tone's anniversary and choose his grave as the place of celebration.

If we consider the time and the circumstances of his career we should see how wise and just the judgment of the Irish people has been. He appeared at the end of the most disastrous century of Irish history. The country was divided into two unapproachable sections—a pampered few and the down-trodden many. The ordinary Irish people were serfs, and had been for many generations. They were denuded of rights; all the machinery of power was used to force them into a way of life that must deprive them of the last vestiges of civilisation.

Those serfs were Tone's fellow-countrymen. He did not blink the fact. He accepted it with all its implications. He had faith in them. He knew that justice demanded that the country belonged to them of right, and he believed that they, the downtrodden race, could take control of the country, manage it, govern it, and cure it of the manifold ills that alien and tyrannical government had brought upon it.

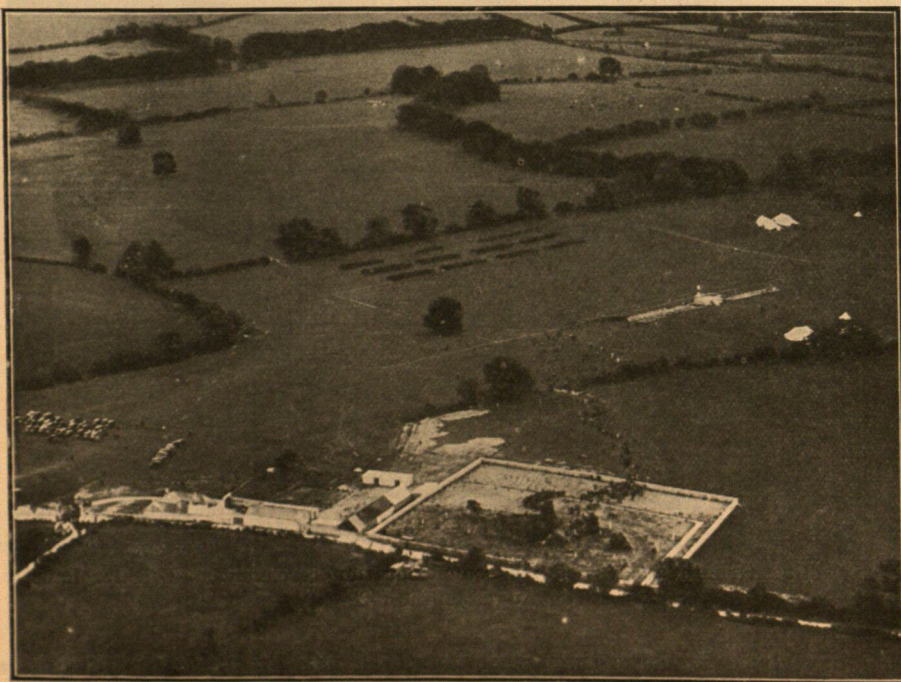
That faith, his love for those who were his fellow-countrymen, and his own unbreakable courage, were strong enough for him to devote his life to the service of his own people, to work as he worked, to face all disappointments with a smile, to embark upon a course whose almost inevitable goal was the gallows. The Irish people have justified that faith and that love.

When he held up the chains that his country's enemies had put upon him, and declared that he would wear them rather than the Star and Garter of England, he knew somehow that by his life and his sacrifice the day would come when chains would cease to be the badge of Irishmen. His unflinching faith assured him that the time would come when an Irish State would rise from the ruins that he saw about him in his day, and that Irish soldiers should wear the uniform of that State as the badge of Freedom, as a symbol that they pledged their lives to the defence of that Freedom that he gave his life in an endeavour to attain.

Irish soldiers, the Irish State that has now come into being, that controls the destiny of its own people, that is known and recognised internationally after being unknown and unrecognised for centuries, has called upon you to celebrate the memory of Tone—not because Tone was a soldier, but because we expect of you in a greater degree than in any other section of the people, the qualities that are so radiant in Tone. These qualities should be found in greater or less degree in all citizens, but above all, they are necessary in soldiers.

Love of the country and it's people, willing and unfaltering service—even to the giving of one's life—discipline and courage. These qualities are found in Tone. These are the qualities of the Irish Army of to-day.

You have chosen a noble path. Not without reason are the great names of history the names of soldiers, for the noblest things are love and service. The soldier may not express that love of his people in words—he may not even define it to himself—but he expresses it very clearly when he places himself between the people and the danger that threatens them. The rigid discipline, the daily round of drill and training—their purpose is that you may all act as one man, in the service of the people—that you may act without hesitation, with alacrity, in the service of the Irish people.



Aerial view of Bodenstown Cemetery. This print is from an aerial photograph obtained on June 17th, by the Army Air Corps, Oglagh na hEireann. By courtesy of the Minister for Defence. Stationery Office copyright.

Generosity and magnanimity shone out in the character of Tone. Generosity and magnanimity are required in soldiers. When you receive an order you obey, you obey with alacrity. You do not haggle about your obedience. You do not haggle about the service you will give. You belong to a race that is generous by nature and tradition, to a race that has been used to give without haggling or bargaining—to a race that gave and did not withhold—to a race that gave and did not ask back—to a race that was prompt in the giving. You have inherited that tradition. You are the servants of that race—generous amongst races.

Many of you have seen active service. In fighting for one's country one does not bargain about the service one will give. One obeys—even when obedience means death. You are arranged in ranks, the higher ranks giving orders to the lower ranks, and the lower ranks obeying the higher ranks, but the highest rank amongst you is all the more the servant of the men and women in the streets and in the fields of our country.



[“ An t-Oglach ” Photo.]

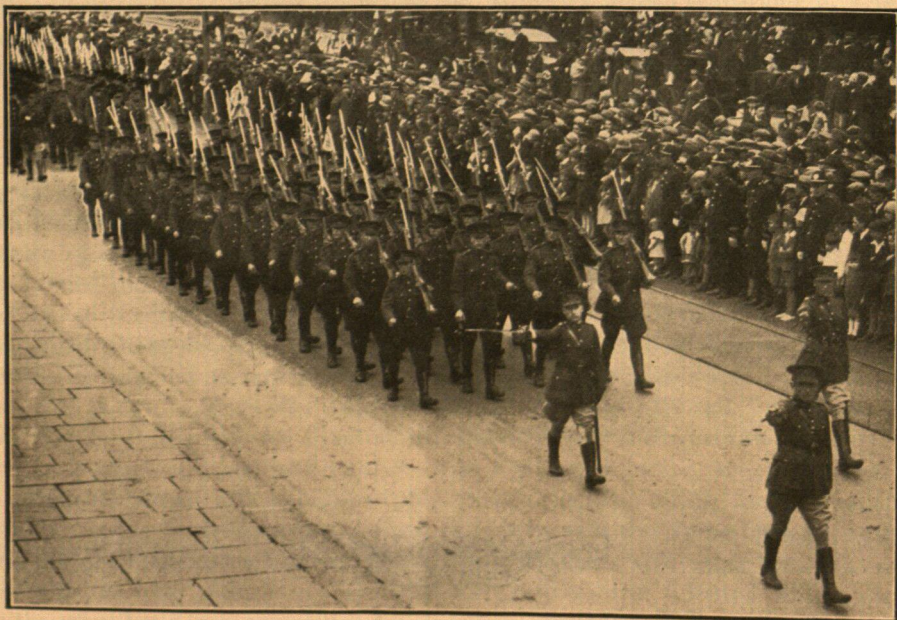
The Collins, Griffith and O'Higgins Commemoration ceremony at Leinster Lawn on August 19th, 1928.

You have lived from the time when it was a crime to serve that race as a soldier, as it was in Tone's day, when to give the service you give to the people of Ireland required secrecy and concealment, into the time when that race, master of its own destiny, controlling its own State and holding up its head amongst the free peoples of the world, freely and openly employs you as guardians of its hard-won rights. You have known men who gave their lives to bring about that change.

There are many, many thousands who gave their lives for Ireland who, if they could but see you here to-day, would have tears of joy and thankfulness in their eyes. You have inherited a great tradition that will demand the very best of all of you. Yours is the tradition of Tone and of all these, known and unknown, who served Ireland through the ages. You have seen the fruits of their work that they did not live to see.

The history of our race is a history of many noble men from the first recorded annals down to the day of Tone, of men of great qualities, generosity, magnanimity, love of country and of the people, men of courage who, in the service of their country could look death in the face calmly and with smiling eyes.

Are we who have seen our country triumph, unworthy of those who laboured to bring that triumph about? I do not think so. Within the last twelve months we have seen a man, one time Assistant Adjutant-General of the National Army, facing death with fortitude worthy of the noblest in all history—a man who had faced death before—who had laboured with tenacity on behalf of his country; whose sole thought—and he thought with an intensity that few are capable of—whose sole and unremitting thought was of Ireland's needs. Having for years



[“ An t-Oglach ” Photo.

The 4th Infantry marching past the Cenotaph.

given to Ireland all his service—and how supremely he did so—he paid the price of that service as so many have done in our history by giving his life also. Men of the Army to which Kevin O’Higgins belonged, he taught us much in this life, and his last act was to teach us how to die in Ireland’s service.

And again within that last twelve months another member of our Army has shown how living a thing the heroic tradition is with us. One of your comrades set out upon the uncharted ways of the air—facing a task that seemed to be impossible—an impossible task in which failure meant death. Smiling, he set out and under the unlighted heavens his courage did not fail him though he knew full well that all who had attempted that journey before him had gone to death.

Attacked by all the powers of the air, in wind and fog, he and his gallant comrades travelled on and succeeded where all others had failed.

The long story of failure now in our country's history is over. May our future success be marked by the same nobility, beauty and heroism that is written in the pages of our past.

Soldiers of Ireland! you are chosen for this day's celebration because you who have put on the National uniform are the nearest heirs to our splendid tradition. Yours is the tradition of Tone and Emmet, of Griffith and Collins, and of Kevin O'Higgins.

We have no fears for that tradition, but we have a firm hope that, generation after generation, men who don the national uniform will add ever more and more to our country's glory."



THE RESETTLEMENT OF OFFICERS IN CIVILIAN LIFE.

By COL. T. F. HIGGINS, D.M.S.

IN this article I am confining my remarks to the question of the resettlement of officers, not that the resettlement of officers is a bigger problem or a more pressing problem than the resettlement of non-commissioned officers and men, but because they are totally different questions, requiring different methods of solution. Consequently I am leaving it to someone who knows more about the general labour situation to deal with this matter in its application to N.C.O.'s and men.

The resettlement of officers in civilian life, following drastic reductions in Army strength, is a problem which has affected most countries at one time or another. Without exception it has always been regarded as a national question and faced as a national task, with all possible government assistance and facilities. The governments concerned set a headline to local boards and employers by giving special preference in all government employment to ex-officers; in most cases appointments were confined to ex-officers. In this country the problem has not been faced with the same amount of determination or prepared for by the same amount of organisation. The explanation may be that recruiting in this country was carried out to meet the shock of a civil war, and so the demand for justice was not so unanimously supported; nevertheless the fact remains that an Army was mobilised to defend the State, and the problem of resettlement should be faced as openly and as vigorously as it has been tackled elsewhere. This is the least that is due to those who responded to the Government's call.

It may be stated that for a certain short period after 1923 government employment was practically confined to those who had served in the Army, and that a re-settlement bureau was established; but these steps were totally inadequate, and even the former preference extended to ex-members of the Force lapsed long before the demobilisations had ceased. Reductions are still being effected, and will continue until there is a definite peace establishment adopted and applied. On the other hand even preference for ex-service candidates has practically ceased to be a reality, and the re-settlement bureau has not very much influence in providing employment in the absence of active government co-operation. Ex-officers are either emigrating in search of work or joining the ranks of the unemployed at home. Gratuities and not employment are being offered to others at present in the Army, and can only result in enticing those at present serving to join the ranks of their comrades outside. Gratuities melt quickly when a family man has to pay for food, lodging, furniture, and other household maintenance charges.

Bitter recriminations regarding what has not been done, and hostile criticism of what has been done serve no useful purpose and are not calculated to improve the position of the ex-army officer in want at the moment, nor to benefit those who may leave the Army in the future. It is more helpful and more honest to make allowances for the serious difficulties of those in responsible offices in the past and for the multiplicity of grave problems and serious obstacles with which

they were hourly confronted. We must recognise that a debt of gratitude which can never be forgotten is due by all citizens of this State to the small team of courageous and hardworking men who piloted the Ship of State through many stormy seas.

In order to appreciate the position and to decide on what steps should be taken to meet the situation, it is desirable (1) to ascertain what is the extent of the problem at the moment, and to what extent the numbers at present affected will be augmented in the near future; (2) to see how far present policy is affecting the situation; (3) to examine what steps might be taken with a view to providing employment for those already in want, and openings for those who may be obliged to leave the Army.

1. With regard to the numbers at present unemployed, I am not in a position to give official figures, but if the matter were officially investigated with a view to action, a list could be very easily compiled. I know in common with most people that the position at the moment is bad, hundreds of ex-officers have been out of work since they left the Army.

2. It is easily understandable that as Army organisation progresses, new blood and young blood may be desirable, but before creating vacancies for the benefit of fresh youth we should provide for the welfare of those who have rendered service. If there are still vacancies in the Army their services should be retained, pending an opportunity for employment, and if there are vacancies in other Government Departments and Services which outgoing officers are qualified to fill, they should be transferred to the latter.

3. Suggestions regarding what steps should be taken to deal with this matter are generally easy and generally obvious, but are without exception difficult to apply. Difficulties in the path are, however, no justification for inaction; they are rather indicative of the necessity for vigorous and determined action. If it is considered right and just that the Government and State institutions should exert themselves to provide ex-officers with employment, then the right thing should be done in spite of all obstacles. The present Government has made apparently insurmountable obstacles appear insignificant when they tackled such obstacles in other fields, and they can do the same again. Legislation may be necessary, but that is no excuse for inertia.

By confining for a term of twelve months all appointments directly or indirectly provided out of public funds to ex-officers of the Army, provided candidates who had served in the Army had the qualifications required and the experience asked for the whole question would be settled.

In this connection it may do some good to examine Government procedure with regard to civil servants. If the Army and Department of Defence were disbanded the position of established civil servants in the Department of Defence would be unaffected; they would be merely transferred with status and pay intact to some other Government Department, and fewer vacancies would arise for public competition until these civil servants had been absorbed. Such a policy is very com-

mendable and no one would venture to criticise such procedure; it is only elementary justice between employer and employee. Such policy has produced a tranquil, efficient, and contented service.

What has been the procedure with regard to the Army? The Army was recruited during 1922-1923, appeals being made to men of courage with patriotic sentiments to aid the State in its hour of need. The call did not fall on deaf ears. The response was spontaneous. Men of courage and patriotism threw up good appointments to serve the State; no one asked how much their pay would be. The state of emergency and instability continued until 1924 was well advanced, and then numberless officers were told that their services were no longer required. They left the Army, and what did they find? They found that during the period when they would regard it as unpatriotic and perhaps cowardly to leave the Army, the Government had built up a new Police Force, a new Civil Service, a full Postal Service. They found that every possible avenue of public employment had been very effectually blocked whilst they served the State. Moreover, during their Army service it was apparently Government policy to encourage them to marry. Special extra financial grants were made not only to those who joined as married men, but to any who married during their term in the Army. In addition we had many official statements and actions that implied permanency and stability to the honest, trusting mind. We had the gazetting of officers, the issue of paper commissions. Later we had the Establishment of the Forces and the issue of parchment commissions, and the publication of an establishment. All these acts led officers to believe that their services were required and would be retained, but each gesture implying stability was followed by a weed-out, and no corresponding effort was made to provide employment for those weeded out.

Officers do not complain of the various phases of reducing the Army. They recognise that the financial resources of the country are very limited and that a very cheap Defence Force must be organised, but they do one and all complain, and rightly so, that since the rifles ceased to crackle they are nobody's children. No effort is being made to provide them with civilian opportunities, and nobody seems to care.

Some may say that gratuities are being given, in some cases amounting to two years' pay, but these are conditional gratuities, and are only sufficient to maintain a married officer in civilian life for a very limited period. After that period what happens if no employment is found? Furniture, etc., purchased at a high price is sold at one-fourth cost price, and soon to the emigrant ship. If one year's pay were given as a gratuity, and employment found, the State would stand to gain. They would save one year's pay and retain the services of a tried and loyal man, instead of giving employment to an unknown and untried individual, and leaving the man who served them in the lurch.

Now what is happening at the present moment? Lawyers, doctors, clerical experts, supervisors, trained administrative officers, financiers, officers with a knowledge of management, purchasing and sales, chemists, surveyors, etc., are all to be found in the Army, surplus either now or in the near future. Other

Government services are busily engaged making such appointments from the outside world. Why not have a little co-operation and co-ordination? Is not one boundary sufficient inside one little island? Why create more impassible boundaries between government services? Why not try transferring officers to other State Departments when they have the required qualifications for a position? If such a policy were pursued for one year the problem of re-settlement of officers would have ceased to be. The Army would be reduced to a size commensurate with the national purse, other departments would have the services of loyal, efficient and conscientious workers, and justice would be done to those who did, each one his bit, to build up and make secure an independent Irish State.

This matter is important for the welfare of the Army. No one will deny the fact that at the moment the Officers of the Army are uneasy and discontented. The big majority of officers are married and are anxious for their families. Common sense and public policy tell them that an Army of the present strength cannot be regarded as a permanent peace establishment. Each one of them has his eyes fixed on the civilian horizon. They seek civilian employment, even government employment, but they seek it in vain. They contribute their money to the Appointments Commission but they are rejected by the Selection Boards, the members of which do not seem to appreciate the value of Army Service. I myself heard it stated at a Selection Board that twelve months' service in a Military Hospital should only be counted for purpose of marking as equivalent to six months in a Civilian Hospital. They compete for positions under an excessive handicap, because they have served the State in the first line of danger.

Is it any wonder, therefore, that officers are discontented and feel rather "let down"? Isn't it clear that such a state is unhealthy and that the disease requires immediate attention with a view to cure? What is the proper treatment for such a disease? Obviously it is to remove the cause. How can the cause be removed if they cannot be kept permanently in the Army? The uneasiness can be removed by:—

- (a) Drafting and publishing a peace-time organisation filling the appointments in that establishment by officers, and at the same time passing a Pension Act.
- (b) Officers not provided with appointments in that establishment to be granted—
 - (1) Three years' pay and allowances, if provided with no government employment.
 - (2) Two years' pay and allowances, if provided with government employment 25 per cent. less than the present pay and emoluments.
 - (3) One year's pay if provided with government employment equal in value to the present employment.

On such terms it might be considered that officers leaving the Army may be excluded from contemplated Pension Regulations.

THE MANŒUVRE OF BANTRY BAY.

(Continued).

By Col. J. J. O'CONNELL, A.S.I.

CHAPTER III.—THE ORGANISATION OF THE EXPEDITION.

THE Civil War in the West of France came definitely to an end early in 1796, and from that time on, large drafts of available troops were forwarded from the Army of the Ocean Coasts to the other fronts—especially to Bonaparte in Italy. From the remainder of his Army it was Hoche's intention to form the Army of Ireland in the first instance, and to maintain subsequently a steady supply of reinforcements for that Army. This involved a gradual concentration of troops on Brest and an assembling there of the requisite material—military as well as naval.

CONDITIONS AT BREST.

Brest was the obvious base-harbour for any expedition having Ireland for its objective, but at this time Brest was very far from being prepared for such a rôle. The geographical situation of the place entailed, in the circumstances of the time, a number of very serious limitations. The harbour was situated at the extreme end of the long and poor peninsula of Brittany, projecting nearly 150 miles into the Atlantic. In addition, the Vendean and Chouan wars—waged in its hinterland for three years with much bitterness and devastation—had intensified this character of isolation. Now, Brest was a very considerable town with a population of seventy thousand souls. The simple physical wants of the town—food, clothing, and other bare necessities—were considerable. In days before good roads—or after roads were destroyed—a serious effort was necessary to keep the people alive. It will be easily realised how greatly the circumstances were aggravated by the concentration there of the additional mouths to be fed comprised in the expeditionary army.

The population of the town had at all times been dependent on the Government, and now the Government could do very little for them. Money was even more scarce than at most other places; and the requisitions, to which the Government often had to have recourse, were most unwelcome.

And if the general conditions of the town were unfavourable, the special conditions of the Navy were no better. The ordinary procedure for getting naval stores was to bring them by sea from the Baltic, Corsica, the Adriatic, and even America—the sea route being in all cases the route adopted. But the English blockade, although not as close as it became later, effectively prevented any large quantities of stores getting in. As for the scanty stores on hand at the beginning of the war—these had been long since exhausted. Thus, serious difficulties were certain to be encountered in any matter of getting ready for sea such a naval force as could transport an army. Ships there were, indeed, in sufficient numbers; but they were defective in literally everything.

Evidently, then, it was a matter of prime necessity to make the very most of such meagre facilities as existed in Brest, and for this there was needed singleness of purpose and great driving force combined with technical knowledge. But, as we

have seen, the Directory had taken no measures to impress the naval authorities in Brest with the urgency of the Irish expedition—nor even to smooth their relations with Hoche. During this fateful Summer of 1796, Army and Navy were hopelessly at cross purposes.

A solitary flag-officer—Rear-Admiral Eustache Bruix—definitely and completely dissented from the common naval view of the situation. Bruix was Director-General of Movements in Brest, and in that capacity gave an indication of the organising ability that created the Boulogne flotilla nine years afterwards.

From the first he realised fully the greatness of Hoche and his plan. "Let us conquer the English at home," said he, "and we conquer Jamaica, Ceylon, the Coromandel, and Bengal!" He whole-heartedly put at the General's disposal his own technical knowledge and capacity for hard work. Results began to show. Bruix found somehow whatever was lacking: he used everything in Brest; he procured extra cordage from the commercial harbour of Nantes; he prepared sailing orders, signals, charts; he was indefatigable in superintending the work on the ships; construction of ovens, water-tanks, and bulk-heads for arms and baggage. With Hoche's help he succeeded in combing out extra sailors from Cherbourg, Granville, Saint Malo, Nantes, les Sables d'Olonnes, and as far as Bordeaux. In addition, when it was thought desirable to carry the artillery and certain other stores in transports—not in the warships—still extra work had to be done. In short, it is not an exaggeration to say that not even Hoche would have got the expedition to sea without Bruix.

Admiral Villaret had been engaged from the early part of 1796 on his own Indian project; but this had not been pressed forward very vigorously. In any event the number of ships required for the Indian expedition was quite inadequate to transport an army of the size Hoche was leading to Ireland. Villaret and his adherents were aghast at the fresh demands imposed on their meagre resources, and temporised, objecting that the indigent dockyard workers could not be got to do the requisite work. But Hoche was ready: "Tired of always hearing that a penniless government should not carry out expeditions, I have handed over from our funds 40,000 livres in cash, and drawn from our stores 3,000 pairs of shoes, 3,000 blue shirts, and 2,000 Quiberon jackets. The workmen of the port have not been paid, I am told, for five months, and these articles are to be distributed to them free by way of encouragement." And this is only one example of Hoche's difficulties in fitting out the expedition.

The delays in Brest were calculated to depress the soldiers as well as the sailors: the example of the latter was no good, of course. Cooped up in narrow quarters, with clothes, rations, and pay, all in arrears, there was a certain amount of sickness and discontent. The men would have been more—or less—than human if they had remained uncomplaining. There were, besides, certain elements in the Army—Légion des Francs, etc.—which made the maintenance of discipline a trifle difficult. But the prestige, tact, and firmness of Hoche could be depended on to prevent any *military* as distinct from *naval* discontent going too far. At the

same time it only needed the idea of action to right matters again—Tone's diary shows us clearly what the soldiers were like once they got to sea.

HOCHÉ SECURES A FREE HAND.

The root cause of Hoche's difficulties with the naval authorities in Brest was the original hope of reconciling the irreconcilable—of fusing an Indian and an Irish campaign into one. The preparation of an Indian squadron was mainly a naval affair: each ship would carry a couple of hundred soldiers in addition to her crew, as a reasonable standard of comfort had to be aimed at on the long voyage. The ships also required elaborate installations to be fitted. For the Irish expedition on the other hand it was necessary to crowd the ships—the aim was to carry the maximum number of soldiers in the minimum number of ships. In this case the ships-of-the-line carried 500-600 men over and above their crews; the frigates carried 200-300; and in addition there were arms and stores of all kinds.

It would seem that Hoche had no objection to the fleet going on to India provided it landed his army in Ireland first. Herein he showed a better grasp of the situation—and a less selfish mind—than Bonaparte in Egypt two years afterwards. But while he had no opposition to offer to an Indian cruise as such, he objected vigorously once it was clear to him that the main effort would be jeopardised thereby: "If not actually dangerous, it is at least useless to traverse 4,000 leagues to fight the English, who are at our own door. . . . Are we not assured that all their possessions will fall into our hands once we march on London!"

No doubt, Hoche was not a naval technician and was thus at a disadvantage in calculating the very real difficulties—but he could see that so good a technician as Bruix saw eye to eye with himself. No doubt, to consider personalities, it was unpleasant for Truguet to "drive" Villaret, an old comrade of his own—but later he had to supersede him in peremptory fashion. The conflict of aims and ideas at Brest was regrettable for everybody concerned—and for the prospects of the campaign.

Yet, not for one moment did Hoche—an unswerving realist—deviate from his own policy. He pressed home on the Directory with all his vigour that the Irish expedition was paramount. On October 4th, in a letter from Brest, he says:—

"Moreover, I will say, the Indian expedition should be abandoned rather than that on which I am engaged; for what is it that is wished for? Peace, which will follow on the destruction of England. Very well, then: what hope of success have you from India? Are you certain that your battleships will be welcomed there? Why, after all, deprive yourself gratuitously of such strong forces? I say gratuitously, because even if you achieve the greatest possible successes it will be a year before they become known; and how then will you make them contribute to the peace?" He was absolutely right: just over a dozen years earlier Suffren had all but wrested India from the English when news came that peace had been signed half a year previously.

Towards the middle of October relations between Hoche and Villaret became very strained. Hoche had gone to Rennes from Brest, and in his absence the naval preparations slackened off. In consequence he decided to proceed to Paris to thrash the matter out with the Government, and informed the latter of his intention. By return of his own messenger there came his appointment—this time unequivocal—to the supreme command of all components of the expeditionary force, naval as well as military. This reached him at Rennes on Oct. 15th. His acknowledgment to the War Minister is characteristic:

“ I was on the point of starting for Paris when I received by the courier I had sent to the Minister of Marine the latter’s letter and your own. . . . I am leaving for Brest, and you may depend I shan’t leave it again except by the right door.”

THE SUPERSESSION OF VILLARET.

A few days after Hoche received the supreme command of all forces, Villaret received his new instructions, dated October 18th. These instructions set forth at the outset the purpose of the campaign: “ The Executive Directory, wishing to end the audacious perfidy of the Republic’s most cruel enemies, and to employ legitimate and overdue reprisals by carrying the war into their homes, has ordered to be fitted out at Brest a fleet to be commanded by General Villaret, vice-admiral of the naval forces.

“ The aim of this expedition is to convey to Ireland twenty thousand infantry under the command of General Hoche. This force, in conjunction with the inhabitants of the island who seek their freedom, will deliver the country from the tyrannical English yoke.” There follow matters of detail.

Thus Villaret had been overborne—and that in the interests of sound strategy. And, whatever may be thought of his action before this, after it he had only two courses possible—to obey or to resign. He did neither; and, in effect, he just acted as a brake slowing-up preparations for the remaining couple of weeks of his command. In the opening days of November, Hoche asked Truguet to relieve the Admiral of his command, and asked for Latouche-Tréville to replace him. The latter was unquestionably the ablest French sailor of the time, but he was at the moment in the Mediterranean: the admiral actually appointed was Morard de Galles, who held an appointment in Brest. The new admiral was not an outstanding man, nor eager for the appointment; but, on the other hand, he was prepared to do his best, and after his appointment matters proceeded with much greater smoothness and speed.

But much leeway had to be made up. Quite apart from ill-will, the Navy was in a thoroughly impoverished condition. There was, even up to quite a late date, a danger that an expedition of the first order of importance might prove to be impracticable—or rather that a less desirable type of operation might have to be adopted.

POLITICAL BACKGROUND OF THE DELAYS.

Although there were real and tangible grounds for the delay in equipping the naval side of the expedition, the difficulties could have been overcome more

speedily if the Government had given a clear and vigorous impulsion. This the Directory did not do at first. For while Hoche was hurrying on his preparations at Brest, the Directory was negotiating at Paris with Lord Malmesbury, an English Plenipotentiary, authorised to negotiate peace terms now that the Austrian ally was on the point of being knocked out. Looking at the matter strictly from the French point of view, there was in reality no opposition between negotiations and the most vigorous preparation meantime. Indeed, extreme vigour in the preparations would have been one very effective form of negotiation.

In fact there was no such unity of aim or action; the Directory was divided. Carnot—the one Director of really first-class ability—was for peace as soon as possible. Whether his view was politically correct or not does not concern us in the present study: it is enough to note that it was diametrically opposed to that of Hoche. Hoche was quite frankly the General of the “finish England” party—he had been so for years. So long as this duality existed there was bound to be delay. But the unbroken succession of astounding French victories in Italy pushed negotiations gradually into the background; and the Directory then went on with the Irish expedition in a systematic way.

FORMATION OF THE ARMY OF IRELAND.

All the time that Hoche was struggling to ensure proper facilities on the naval side the work of forming the expeditionary army went on steadily. The Staff and Services were assembled gradually at Brest, and simultaneously the work of picking the Army proceeded. For the Army had to be *picked*. Numerically it could not at all equal an army that could be placed in the field in Germany or Italy: quality must take precedence over quantity.

Thus, there was the Cadre Brigade, intended to absorb militia deserters and volunteers from among the United Irishmen. This was recruited from among prisoners of war, and Wolfe Tone played an important part in its formation, which he describes in his memoirs. The great majority were Irish, with a sprinkling of English and Americans.

Another notable component was Humbert's *Légion des Francs* or advance-guard infantry. These were recruited from among pardoned Republican deserters, reconciled Chouans, etc., and exceptionally officered. These were, for the job in hand, ideal troops: they had abundant experience of both regular and guerilla warfare, and had a special organisation into small handy units—for which see Chapter I.

The ordinary Line Infantry was furnished by some of Hoche's best regiments, and Humbert two years afterwards showed a specimen of them in Ireland; and it would be largely former comrades of theirs who won Arcole and Rivoli. As regards the Cavalry—necessarily not numerous in the case of an overseas army, the picking was carried out with, if possible, even greater care; as witness Hoche's order from Rennes on August 24th:

“ General of Brigade Auguste Mermet is ordered to proceed to-morrow, 8th inst. (Fructidor) to inspect the 6th and 12th Hussars and the 7th Chasseurs à Cheval.

“ After finishing the inspection of each unit General Mermet will pick from the total of each regiment two squadrons totalling 371 inclusive of officers. He will make a point of picking the fittest, best trained, and best clad and equipped men.

“ These detachments will be ready to march under command of a major, who will be instructed to see that the men picked have turned over to them the best articles of clothing and equipment, and that their armament is complete.” The regiment was, of course, to be remounted in Ireland.

So, too, for the Artillery, which from the nature of the case, was also of necessity limited in strength, the units were carefully chosen. And here, it may be remarked in passing, the French enjoyed an almost decisive advantage—alike in material, in technique, and in tactical handling. The “ *Artillerie Légère*,” to which Tone makes such frequent reference, was a really modern and mobile arm: it presented the enormous advantage of being able to **manoeuvre** on the actual battlefield—a character not possessed by the enemy artilleries of the day.

Then there was the matter of spare arms to be carried for the purpose of arming the Irish insurgents. Tone tells us in his Diary under date of July 23rd that Hoche had asked for 80,000 muskets, and was sure of 50,000—though actually the total fell a little short of that figure. On returning to the West, Hoche immediately set about collecting the arms; for on Sept. 27th Adjutant-Gen. Simon returned him an inventory of the spare arms in Brest arsenal. These included 20 cannon, 2 12-pounders, 4 8-pounders, 12 4-pounders, and 4 6-in. howitzers. There were 26,527 muskets of various makes—4,111 requiring to be repaired. Incidentally the matter of the muskets shows some of the difficulties in the way of fitting out. “ It will be a long and difficult task to classify the muskets as you have ordered,” said Simon. “ Those which have come from Port Malo, Lorient, and Brest are all mixed and the cases nailed up.” There were 856,765 musket cartridges, and material for 1½ millions more. These were a considerable nucleus, and Hoche was able to make the necessary additions—some heavier guns, extra muskets, and extra ammunition.

DETAIL OF THE EXPEDITIONARY ARMY.

It is not easy—nor indeed, perhaps, possible at all—to get the exact particulars of the men and material composing the Army of Ireland. The distribution of troops as between the original expedition and the reinforcing body varied from time to time—according as more or fewer ships were available, and also by reason of the varying degrees of preparedness of individual units at given times. At no time did the figures for the original expedition reach the full 20,000 indicated as the strength by the Directory: about 15,000 was nearer the mark.

There does, however, exist a practically full Embarcation State of about the actual date of sailing. This is certainly accurate enough for any purposes of study, and is particularly instructive as showing very minutely how troops were allocated to ships. The following table gives this State in full:—

EMBARCATION STATE OF ARMY OF IRELAND.

AVANT-GARDE			General Officers		Units on Board		Strength	Artillery
Ship		Captain						
SHIPS-OF-THE-LINE								
{ Nestor Cassard	-	Linois	-	Lemoine g. de div.	-	1 re légion des Francs	569	-
	-	Dn Fay	-	O'Shee g. de brig.	-	{ 1 re l. des Francs	543	-
	-	Lacroze	-	Humbert g. de brig.	-	{ 8 e rég. d'art (détachement)	30	-
	-	Droits de l'Homme	-	Regnier a. g.	-	1 re l. des Francs.	547	2 canons de 4
{ Tourville Leste	-	Henry	-	Gratien g. de brig.	-	27 e demi-brig (dn. 1 ar battn.)	224	-
	-		-	Harty g. de brig.	-	{ Brig-étr. { Ferdute	143	-
	-		-		-	{ O'Meara	155	-
	-		-		-	{ La Châtre	30	-
{ Cocarde	-	Daugier	-	Gatine a. g.	-	{ 8 e reg. d'art (détach)	147	-
	-	Faure	-		-	{ 27 demi-brig. (1 re cie de gren)	90	-
	-	Siméon	-	Grouchy g. de div.	-	{ Régiment de Lee (Brig. Etr.)	298	-
	-	Dupuis	-	Le Cat a. g.	-	{ 27 demi-brig. (2 me cie de gren)	135	-
{ Bellone	-	Denis-Julien	-		-	{ 94 e demi-brig. (grens. de Blonim)	10	-
	-		-		-	{ Guides de l'armée	219	-
	-		-		-	{ 81 e demi-brig. (2 e cie de gren.)	150	-
	-		-	(Corvette)	-	{ 8 e reg. d'art. (détach)		-
CORPS DE BATAILLE.								
Ship		Captain	General Officers		Units on Board		Strength	Artillery
{ Fougoux Mucius Indomptable	-	Maistrail	-	Watrin g. de brig.	-	24 demi-brig. d'inf. lég. (du. 1 er bat.)	439	-
	-	Quérangal	-	Chérin g. de brig.	-	<i>id.</i>	512	-
	-	Dedont	-	Chef d'E.—M.	-	81 demi-brig. (1 re cie de gren.)	98	-
	-		-	Simon a. g.	-	24 demi-brig. d'inf. lég. (du. 1 er bat.)	267	-
{ Redoutable	-	Moncoust	-	Wolfe Tone a. g.	-	1 re compagnie de art. à cheval	82	-
	-		-	Officier du génie	-			-
	-		-	" d'art.	-			-
	-		-	Commissaire ord et de guerre	-			-
{ Patriote	-	La Fargue	-	Administration	-	3 reg. d'art. (détach)	56	-
	-		-		-	5 reg. d'art. (détach)	96	-
	-		-		-	8 reg. d'art. (détach)	50	-
	-		-		-	1 er corps expéditionnaire	124	-
-		-		-	94 demi-brig (dn 3 e bat.)	552	-	
SHIPS-OF-THE-LINE								

CORPS DE BATAILLE (Contd.)			General Officers	Units on Board	Strength	Artillery
Ship	Captain					
FRIGATES	Fraternité	Fustel	Hoche g. en chef.	94 demi-brig. (grenadiers de Blomin)	50	
	Coquille	Gourrège	Debel g. d'art.	Guides de l'armée	20	
	Romaine	Chambon	Poiton a. d. c.	24 demi-brig. d'onf. lég. (2 e bat.)	247	
	Sirène	Bellenger		<i>id.</i>	134	
				<i>id.</i>	236	
	Atalante	Dordelin	(Corvettes)		2,972	
	Voltigeur	Perin				
ARRIERE—GARDE			General Officers	Units on Board	Strength	Artillery
Ship	Commander					
SHIPS-OF-THE-LINE	Séduisant	Dufosse		{ 94 demi-brig. (du 2 e bat.)	553	2 canons de 4
	Pluton	Le Brun	(Charrois Militaire)	{ Comp. aux. détach.	80	
	Constitution	L'Héritier		{ 94 demi-brig. (du 3 e bat.)	449	1 canon de 8
	Trajan	Le Ray		{ Comp. aux. détach.	176	
	Wattignies	Thevenard		{ 94 demi-brig. (du 2 e bat.)	600	2 canons de 4
FRIGATES				{ 94 demi-brig. (du 1 re bat.)	561	
	Surveillante	Bernard		{ Comp. aux. détach.	60	
	Impatiente			{ 94 demi-brig. (du 1 re bat.)	342	
	Charente			{ Comp. aux. détach.	135	
	Résolue			{ Compagnies ouvrières	80	
	Affronteur			{ 7 reg. de chars (1 e escadron)	166	
				{ Canonniers de 1 re bat. de S. et O.	58	
			24 demi-brig. d'inf. lég. (2 e bat.)	232		
			<i>id.</i>	255		
			8 e reg. d'art. (détachement)	144		
					3,891	

SUPPLEMENTS		Commander	Units on Board	Strength	Artillery
Ship					
*Pégase	-		27 demi-brig. (du 1 ^{er} bat.) -	600	
*Révolution	-	(Frigate)	(du 2 ^{me} bat.) -	600	
Tortue	-	Obet	(du 2 ^{me} bat.) -	300	
Scévola (Rasé)	-		24 demi-brig. d'inf. lég. (du 3 ^{bat.})	339	
TRANSPORTS	Nicodème		6 rég. de hussards (2 ^e esc.) -	353	1 canon de 16 (siège), 2 obusiers de 8 (siège).
	Ville-de-L'Orient		Chasseurs de Lamoureux -	5	1 canon de 12, 2 de 8, 2 obusiers de 6.
			10 rég. de huss. (1 ^{er} esc.) -	114	2 mortiers de 10 pouces (siège).
	Justine		12 rég. de huss. -	317	{ 1 mortier de 10 (siège), 2 de 8 (siège).
			24 demi-brig. d'ing. lég. (3 ^{bat.}) -	465	{ 1 canon de 8, 1 canon de 4.
	Suffren		<i>id.</i> -	202	1 mortier de 8 (siège)
	Allègre ?		-	-	1 canon de 12, 1 de 4, 1 obusier de 6.
				3,295	

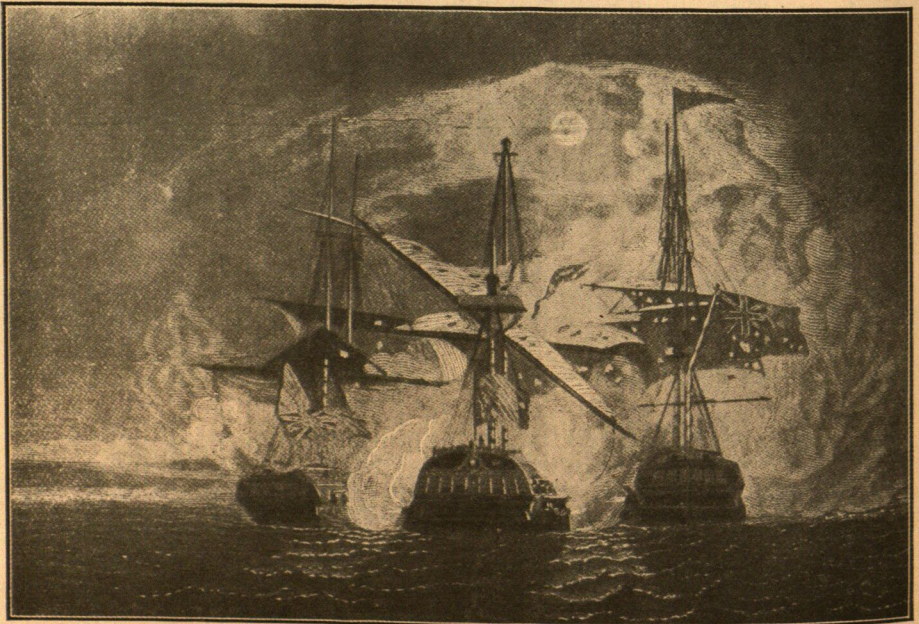
RÉCAPITULATION

Avant Garde	3,739
Corps de Bat.	2,972
Arrière-Garde	3,891
Suppléments	3,295
	<hr/> 13,897

*Of Richery's ships—originally Corps de Bataille.

METHOD OF TRANSPORTING THE TROOPS.

A large amount of superficial criticism has by different writers been levelled against the conduct by Hoche of his expedition. The method of loading troops on the fighting ships has been condemned as likely to impair the fighting efficiency of the fleet. But the plain truth was that no arrangement whatever could have rendered the French ships of 1796 capable of meeting the English on even terms with hope of success. Evasion of the English was the thing to aim at, and the fewer ships the better for this purpose. Again, a landing in face of opposition—a quite possible contingency—was easier by Hoche's procedure. In point of fact—the French fleet being as inferior professionally as it then was—its fighting value was **increased** rather than diminished by the presence of troops who provided a by no means negligible musketry addition to the vessel's fire from her guns. It must not be forgotten that Nelson was killed by a musket-



[“ An t-Oglach ” Photo.]

Action by Sir Edward Pellew in the “Indefatigable” and Captain Reynolds in the “Amazon” against the “Droits-de-l’Homme,” January, 1797. After R. Dodd. By kind permission of Capt. Sir Charles Cust, R.N., whose collection includes the original print, and of Messrs. MacMillan & Co., Ltd., from whose reproduction in “Fighting for Sea Power in the Days of Sail,” our print is taken.

ball. “So continuous and destructive was the fire kept up from the tops of “Le Redoutable,” that, within a few minutes of Lord Nelson’s fall, several officers and about 40 men were either killed or wounded from that quarter.”*

On account of the paucity of naval gunners, artillerymen also were often used on board ship. Hoche, in fact, had deliberately systematised the method of

*Cust: “Annals of the Wars of the 19th Century”: Vol. I., p. 246.

the troops participation in a sea-fight. On December 7th—a few days before sailing from Brest—he issued the following General Order: “The General-in-Chief wishes to convey to the several corps composing the Army his lively satisfaction at the keenness displayed by officers and men in helping our brave brothers of the fleet to handle their cannon.

“The General thinks, however, that it is advisable to make a general criticism of the hasty way in which the Infantry immediately discharged their fire during certain exercises which have taken place in the harbour. This might prove very dangerous. He recommends accordingly that Officers and N.C.O.’s allow at most only one-third of the units they command, or to which they are attached, to open fire, until such time as firing has become general. Again, the din of commands must be reduced to a minimum. It is obvious that if the military officers were to give commands in a loud voice to all their troops at once, the naval officers could not make themselves heard whenever it became necessary to order a manoeuvre of any kind.”

That these injunctions of Hoche bore good fruit was abundantly proved a month after the order was issued in the memorable fight of one of the ships of the expedition “called by the good Revolutionary name ‘Droits de l’Homme,’” against two English frigates. On that occasion the soldiers on board the French ship contributed much both by bravery and skill—though unsuccessfully, for the ‘Droits de l’Homme,’ together with one of her opponents, drove ashore in Audierne Bay and broke in pieces. But enough has been said to prove that any objection against crowding soldiers on the warships falls to the ground in view of the special conditions.

THE PORTUGUESE PROCLAMATION.

The English Government was not without some inkling of what was going forward at Brest. As early as the middle of August they had some sort of information about a projected expedition to Ireland. A design on India was also rumoured. The strength, even, was reported as 15,000 men. Rumours were maintained by Emigré refugees from the Channel Islands who fled in alarm to the Isle of Wight, while the naval side could, to some extent, be known through cruisers.

At the same time, as we have seen, the English Government was very much perturbed by the danger imminent to Portugal owing to the Spanish Declaration of War. This anxiety about Portugal was neatly exploited by Hoche. Tone, under date of October 18th, 1796, relates the origin of a sham Proclamation by Hoche to the people of Portugal intended to be captured and thus help to puzzle the English. The Portuguese proclamation was printed in Brest, so as to be identified with the expedition under preparation. The real proclamations—those for Ireland—on the other hand, were printed far inland—at Angers—and under circumstances of entirely different secrecy.

THE STRATEGIC UNITY OF IRELAND.

By CAPT. E. ROONEY, A.A.C.

ACCORDING to the idealists of Permanent Peace, the greatest concrete obstacle to the attainment of an United States of Europe, living in amity and good will, is the reflex in armed forces of the spirit of animosity and rivalry in the different nations of the Continent. It may, therefore, seem paradoxical to endeavour to establish the thesis that the two armed forces in Ireland provide the most potent instruments for effecting the desideratum of an united nation. There are mutual economic interests which tend to bring the Six and the Twenty-Six Counties to the homogeneity of Thirty-Two. Though it may be denied, there are spiritual interests pulling in the same direction. There is the annealing force of a common heritage and a common history. But who, it will be asked has the hardihood to assert that the armed forces of the two areas, the outward sign of apparently divergent individualities, forces explained to some extent by mutual bitterness and misunderstanding—can be regarded as potent instruments for rapprochement, unity and peace? And yet there are those who, having examined the situation closely and dispassionately, are prepared to court scorn by proclaiming that a National emergency, a menace from without, will have as its first effect the welding of these forces into one defensive force for the whole Island. If this were granted, who will deny the potentialities for eventual unity in the other spheres of the activities of these two States?

“Adversity makes strange bed-fellows,” but it makes the strongest alliances, the greatest friendship. The Entente Cordiale was a weapon forged by diplomatists for sinister ends, forged largely out of trade jealousy and fear, and intended to be used not so much to promote good will between two nations as to secure a working arrangement between two brigands. Yet, under the stress of war, it became a true Entente Cordiale when the war machines of each sacrificed its independence and almost its identity, urged by the impulse to create a single defensive force for the two partners. The bargain of the brigands had, under the lash of adversity, become a comradeship in arms; and no matter what new alignments may be made by the dark circle of Diplomacy, there will exist in this generation between the peoples themselves a friendship born of a common memory which will transcend the deals of a Downing Street or the manoeuvres of a *Quai d’Orsay*. The military needs effected in earnest what the rulers pretended to effect. Is it necessary to illustrate the obvious by quoting history in further illustration of the binding force of a common danger? Guelphs and Ghibbelines may fight to their hearts’ content when the frontier is unmenaced by a common foe.

ONE ISLAND AND ONE PEOPLE.

The geographical unity of Ireland is unquestioned. There is a gap of the North, but the obstacle in which it is set constitutes no natural physical boundary between the two regions as the Pyrenees delimit the southern flank of France, or the Rhine fixes the south-western boundary of Germany. The so-called “boundary” is one made by men, on a map, and has as little influence on military

manoeuvre as the lines of longitude and latitude—even less indeed, for the latter are of some utility in indicating the disposition of troops in the field. As it is with physical obstacles that military science concerns itself, Ireland is a unity delimited only by the sea. The paramount consideration of its defence is based on the study of its long coast-line and the channels of communication to the vulnerable points thereon. Looked at as a unity it provides the great advantages of defence on interior lines. Looked at as two states with two separate problems, military science becomes confused under an unnatural frontier providing no major obstacles. From a simple issue of the defence of a coast-line, it becomes a complicated problem involving the defence of a physically indefinite and almost indefensible frontier.

Were Ireland politically—as she is naturally—homogeneous, she could be made impregnable. With divided control and internal friction she tends to become the prey of any adventurous enemy. It can safely be predicted that common sense, apart from military requirements, would not tolerate for two weeks two separate forces in Ireland in an emergency in which her territory was threatened. Politicians and vested interests may have erected the soundest of constitutional fences, but “the whiff of grape-shot” will send a divided people into each other’s arms despite all the parchments that bear imposing seals, for the common people are not the last to see that the military strength of a nation divided against itself is not adequate when the inviolability of its homes is menaced. It is a certainty that should Europe precipitate itself into another Great War—and the signs are not wanting that it prepares for such madness—the necessity for a single command of the forces available for the defence of this Island will not remain for many weeks unprovided for. It is for us to ensure that that unity is achieved on the basis of the Nation rather than of the Empire. How is this likely to be done?

MILITARY RELATIONS WITH BRITAIN.

The first step is the recognition of the facts of our geographical situation which, however we may desire to have it otherwise, unequivocally commit us in a policy of military defence to an alliance with Britain. “However else we may desire it” may be emphasised. It is recognised that there is a mass of sentiment in this country desirous of avoiding any such alignment. Sentiment it is, implanted in the very hearts of those who permit the record of the past to warp their judgment of the present, and prejudice their calculations for the future. But the facts of the situation are unmerciful and deal harshly with sentiment. They compel one conclusion, however reluctantly it may be accepted. In defence our interests and those of Britain are *one*. This is not to be taken as committing us in any way to Imperial adventures and aggressions. The facts to which I refer do not tend to embroil us in wars of conquest—rather do they safeguard us against participation in such. They are inexorable only in the situation in which these Islands are menaced by a power vigorous on the sea and seeking to get to close quarters with Britain; and only then are they inexorable in the conclusion that Ireland must be defended on her own shores. So after all the iron will not sear too cruelly the tender hearts of those who live exclusively in the atmosphere of the past. To England then, with the best grace we can, let us say that in the emer-

gency of a threatened invasion, in the actuality of an effected invasion: "We will co-operate with you to the extent of maintaining or reasserting in arms the inviolability of these Islands."

THE TRUE SEPARATION.

The acceptance of this situation disposes at once of one of the major obstacles in the path of a rapprochement between North and South. The North has always feared our "Separatism," interpreting it as calculated to lead to the seizure of the first opportunity to strike at Britain. Such "Separatism" would be National suicide, but the policy which the facts urge is no less separatist, yet much more sane. It is a policy which will enable us to maintain our sovereign status, and, by guaranteeing it in arms, give it a substance that no mere legal instrument could effect. Even in the matter of our relations with Britain it will strengthen us to more resolution in our diplomatic dealings, for the force that will safeguard Ireland against Britain's enemies will safeguard Ireland, should need be, against Britain herself. And the abandonment of the folly of anti-British independence, the elimination of traditional hostility from our National life, and the confident assumption of our true military role will mark an advance towards the spirit of unity between North and South beside which professions of brotherly love will be as hypocritical as profession always is in its contrast with action. Suspicion, of course, will linger, but if there is no equivocation on our part, if we deal honestly and manfully with the situation and with our neighbours there is no reason why such suspicions should continue. Suspicion is a condition of mind existing only as a reaction from the same condition in the suspect. It does not survive when opposed by frankness and open dealing.

THE SINEWS OF WAR.

The next aspect of this problem is that of finance, and this perhaps will be where the shoe will appear to pinch our people most. Public short-sightedness is proverbial. No sooner has a nation struggled through a war than it proceeds to mislead itself that a repetition of such horror is impossible. With the elimination of Napoleon as the hero or the arch-knave in the European drama of the first decade-and-a-half of the 19th century, the delusion of permanent peace developed a magnitude that has not been surpassed even in the halcyon days of the League of Nations, and its all-embracing accompaniment of Wilsonian pacifist idealism. And lo! again the spectre of war appears on the horizon. But the masses of the people refuse to see it, and it is only when an ultimatum bursts like a bomb upon them that they girdle up their loins for the fray. Wise heads, however, prepare in advance. Despite the clamour of the blind, troops are taught, equipment bought, alliances sought. The facility with which people lull themselves into a false sense of security provides perhaps the most wonderful and most perpetual monument to simple human credulity. It is against this clogging mass of ignorance or indifference that those with foresight often break themselves in despair. Eternal vigilance is, however, the price of liberty. The people must be waked from this stupor and made to realise that it is in time of peace that preparation for defence can only properly be made. All wise men will strive to achieve this awakening so that money, which provides the armament and trains the men, will be made

available willingly and not with that reluctance which so often wears the heart out of those who prepare to meet the horror before it descends like an avalanche upon them.

OUR DEFENSIBILITY.

What do we require in order to discharge adequately our obligations in defence? The limitations in our financial resources are obvious. We cannot hope to equal the contribution of certain states larger than our own in area and population. But we don't want to. Our position, with all its disadvantages, has an advantage greater than money could buy. The defence is always less costly in men and material than the offence, and a coastline can be defended with hundreds of men where a land frontier will swallow thousands. The defensibility of a coast-line is a truism in tactics. There are available in the records of military history few incidents of a naval attack exploited successfully to a conquest where the defender made any pretensions to organised resistance on his coast frontiers. The last war, exhibiting in its variety and vastness, almost every phase of military and naval tactics and strategy, presents no example of the successful military exploitation of an overseas expedition, while providing a number of examples of their futility and costliness. The lesson is clear. It is: that coast-lines with very minor defensive organisations are almost invulnerable to overseas attack. We must, therefore, disabuse our minds of the fallacy of our military impotence. This country, with all its limitations in resources, can be made, with no magnitude of expense, a military proposition which a major power with aggressive designs will hesitate to tackle. The cost of such an organisation and its equipment is not beyond our modest means, and will not put the financial commitment on the Forces beyond the average of European nations of our size and resources. If we have the will to military independence, the way can be found without great difficulty. We must sedulously cultivate a spirit of self confidence in our military capability and capacity, taking the necessary material steps on which to base that confidence. If that confidence develops with our preparations, those outside will respect us and have confidence in us as friends or fear us as enemies, and Britain, fearing for us and herself when we are unprepared, will trust and respect us in time of crisis when she realises that we are "as a strong man armed who keepeth his house." With Britain secure on her tenderest flank, and Northern fears allayed, who will deny us accepting the responsibility of defending the whole Island, we, who control more than two-thirds of its population, resources, and territory. The Six Counties will contribute to this task industrially, and in men, if not because they love us, at least because they realise that only through centralised command can security be guaranteed.

SUMMARY.

The problem then resolves itself into these two simple propositions:—

1. The recognition of the community of military interest of Britain and the Saorstát, and the development in mutual understanding arising from that fact; and
2. The acceptance of our mission of military defence fully with its concomitant building of a military force capable of discharging it.

With these two points accepted, the strategic unity of the Nation will be within easy distance of fulfilment.

THE SWISS MILITIA SYSTEM.

By CAPTAIN SEAN Ó SUILLEABHAIN.

THE militia system by which man-power is raised, organised and trained for war may be regarded as the most ancient military system in the world. In it can be envisaged the barbarian "Nation in Arms." The highly proficient military systems of the city states of Greece and Rome come under review in studying its development. Feudalism depended on it for existence.

As powers grew and developed, and as aggression and counter aggression turned the scales in favour of large first-line armies, the militia system gradually died out. In smaller nations, where the spirit of aggression is not fostered, it has survived as a purely defensive weapon.

One thing above all others which is absolutely essential to the success of a militia system is a unified national outlook, as the support, co-operation and good will of all classes, parties and creeds are necessary and vital factors.

Of the militia system in its purest form Switzerland is to-day the principal exponent though the system is also in operation in Denmark, Norway, Sweden and the Netherlands. Under the Militia Act of 1906, Canada adopted the system while England and the United States have both attempted the formation of *voluntary* militias with but comparatively little success. In England, with a population of over 45 millions, the voluntary militia or, as it is called, the Territorial Army only totals 140,000, while the National Guard or *voluntary* militia of the United States only totals 175,000 in a population of over 116 millions.

In view of outstanding examples of the failure of a voluntary system of recruitment, it is apparent that a militia system must be based on *compulsory* liability for military service in defence of the state, and those who moot the idea of adopting this system must be prepared to look on it from this standpoint and no other. Common justice and equity demand that where the national life is at stake the individual must become subservient to the state and must render service either in a fighting or supporting capacity. People must be taught to realise that citizenship carries obligations which none may shirk (and all organisations not compatible with the national outlook must be outlawed in the national interest).

To visualise effectively the Swiss military system one must have some idea of the country itself.

Switzerland is a confederation of 22 small states or cantons embracing a total area of 15,976 square miles (less than half the size of Ireland) and supporting a population of nearly 4 million people (estimated in 1925 as 3,936,000) of whom about three-quarters of a million are foreigners. Of the land area about 5 per cent. is arable, 50 per cent. grass and pasture, while 20 per cent. is forest, leaving roughly 25 per cent. barren.

It may be said to be a conglomeration of nationalities, 71 per cent. of the people being of German origin, 21 per cent. French, and 6 per cent. Italian, while Grisons, Jews and others make up the remainder. It has not one national language, but three, viz., German, French, and Italian. In the matter of religion it is not less

united. Protestants number 2,218,589, Catholics 1,586,826, while there are some 20,000 Jews. Protestants are in the majority in 12 of the Cantons, Catholics in 10.

Educationally, Switzerland is fairly well provided for, there being about 5,000 schools with some 20,000 teachers and professors catering for over 550,000 pupils.

The franc is the unit of value (£1=25.22 frs.). In 1926 the total revenue was 298 million francs, while the expenditure was 322 million francs, leaving a deficit of 24 million francs or roughly £950,000. This deficit was largely due to subsidies. In 1925 the National debt stood at 4,855,000,000 francs, or £192,498,000.

Switzerland possesses 5,313 kilometres of railways, 27,121 kms. of telegraph line, 410,312 kms. of telephone lines, and 3,929 Post Offices.

Unemployment, lack of houses, high prices, labour troubles, etc., form part of Switzerland's post-war burden, as in the case with most other countries.

The one outstanding feature of the Swiss Federation is the unity of economic interests and the common ideals of individual independence and social equality. This community of interests gave birth to a close association which in time developed into a military union and later to the centralisation of forces directly responsible to the Federal Government.

Switzerland to-day is "a nation in arms" in the widest sense of the term. Its grim determination to defend its interests has earned for it the respect of its powerful neighbours, and explains why its frontiers were never once crossed though the mightiest war in history raged round it for over 4 years.

Though the military union of the Swiss states dates back to the thirteenth century, it was not until the termination of the Napoleonic Wars that the foundations of the present army system were laid. Previous to these wars Switzerland—lulled perhaps into a false sense of security—had sadly neglected its defences, with the result that the country was over-run by the various belligerents—Austrians, Russians and French—and damage to the extent of over £60,000,000 resulted.

The lesson was a dear one, but the Swiss learned it thoroughly, and from the ratification of the Swiss constitution by the pact of 1815, to the present day, the history of the Swiss Army has been one of continuous effort and progress.

From the military point of view, Switzerland is unique among nations in that it maintains no standing army. Apart from the Corps of Instructors and fortress troops, whose numbers are small, there are no forces permanently with the colours. Notwithstanding this, Switzerland can put approximately 500,000 trained men in the field with a rapidity and smoothness of mobilisation unexcelled in any other country. Universal or compulsory service is the root principle of the Swiss military system. Every able-bodied man is a citizen soldier and is liable for service between the ages of 20 and 48. None are excused save those who are mentally or physically incapable of rendering personal service, and even those must pay a military tax until they reach the end of their fortieth year. Certain public servants and officials, clergymen, doctors, male nurses, prison governors, warders, and indispensable officials and employees of public transport undertakings are exempted from personal service but as a general rule, have to undergo the initial recruit's course.

The territory of the Confederation is divided into six divisional districts in which all units necessary for a self-contained division are recruited. For the purpose of organising the services in time of war the territory is divided into 8 territorial areas.

The army of the Confederation comprises:—

- (a) The Elite or first line composed of men between the ages of 20 and 32 years inclusive;
- (b) The Landwehr or second line composed of men between the ages of 33 and 40 years inclusive, and
- (c) The Landsturm or last line composed of men between the ages of 41 and 48 years inclusive.

The Landsturm also includes men who have become unfit for service in the first or second line, and volunteers over 48 years of age who are skilled marksmen and conform to the requisite physical standard.

In case of war or national emergency men between the ages of 18 and 20 years can be called into service while men of the Landwehr may be called into the first line, and those of the Landsturm into the Landwehr.

A citizen who has been convicted of a serious offence or whose conduct has been pronounced unsatisfactory during training is not permitted to serve in the army, as military service is regarded as the prerogative of good citizenship and is esteemed a privilege—not a burden.

In Switzerland the extreme value of preparatory training through the medium of schools, cadet corps, gymnastic clubs and other boy-organisations is fully appreciated. Gymnastic training is provided for in the schools and is compulsory for boys from the age of 10 and upwards. Gymnastic clubs are numerous and form a network of organisation throughout the entire territory. They provide for the training of boys between school-leaving age and military service age and are subsidised by the Federal Government. Boy Cadet Corps are also common, and provide for field training and musketry exercises. Arms and ammunition are issued free. As a result of this preparatory training it is estimated that over 90 per cent. of recruits have passed gymnastic tests before joining the army and have acquired the rudiments of military training.

Recruits are trained by the Corps of Instructors; the period varying from 60 days to 90 days, as follows:—

Infantry and Engineers	...	...	65 days.
Cavalry	...	...	90 „
Artillery, Air Force, and Fortress Troops	...	...	75 „
Medical and Supply Services	...	...	60 „

Men of the first line are called up over a period of from 7 to 10 years for periods of refresher training. These periods vary from 11 days for Infantry, Cavalry, etc., to 14 days for Artillery and fortress troops. In addition all N.C.O.'s and men of the 1st and 2nd lines have to carry out annually certain prescribed courses in a rifle club. If they fail to do so they are called up for special musketry courses without pay.

Cadet officers are trained at officers' schools. Men selected for an officers' course must hold N.C.O. rank. Training varies from 45 days (medicals, supplies, etc.) to 105 days (artillery and engineers). One must clearly understand that these student officers have previously passed from the recruit to the N.C.O. stage which brings us to another unique feature of the Swiss military system, *i.e.*, all promotion is from the ranks. The fundamental aim in the training of a Swiss officer is to teach him what he must know by practical experience and not by theory. Whatever special ability or aptitude a man has acquired in civil life is utilised to the full in his military career. Officers serve in the Elite to the age of 38, in the Landwehr to the age of 44, and in the Landsturm to the age of 52.

There is a school for subalterns whom it is intended to promote to be captains. Here they are taught how to command their men and how to deal with mixed detachments of troops. A second school caters for captains selected for promotion to higher ranks. The syllabus covers general and special tactics, military history, fortifications, laws of war, and the supply and medical services.

General Staff Officers are trained in three different schools through which they must pass successively. They attend the first for 70 days, the second for 42 days, and the third for 21 days.

According to the Swiss Budget of 1927, the Corps of Instructors comprised 267 in all, divided as follows:—

Infantry	...	...	137	Air Service	...	...	11
Cavalry	...	...	15	Medical Services	...	...	16
Artillery	...	...	59	Supply Services	...	...	5
Engineers	...	...	21	Automobile Services	...	...	3

Rifle-shooting in Switzerland has come to be regarded as a national sport. Rifle associations are numerous and have a total membership of nearly 300,000. Over 10 million cartridges are placed at the disposal of rifle associations annually by the Federal Government, while money grants are also given. From the days of William Tell the good marksmanship of the Swiss has become traditional.

Arms and personal equipment are issued free and remain in the man's possession during his period of service. They become his personal property on completion of his personal service period. Cyclists in the active army are provided with bicycles and accessories on payment of half the purchase price. Officers, N.C.O.'s and troopers of the first-line cavalry are similarly supplied with horses. When not on active service they must feed and care the horses at their own expense but may use them for any purpose which does not impair their military value. If a man completes his ten years with the same horse it becomes his property; otherwise all horses remain the property of the Federal Government. Officers of other arms provide their own chargers.

Everyone serving in the Swiss army is insured by the Government against sickness or accident incurred in or through his service. This also applies to youths undergoing voluntary preparatory training.

According to the Budgetary Effectives given for the year 1927, in addition to the Corps of Instructors or Training Staff there were:—

7,578 Officers and men engaged in the training of cadres.

24,870 Men who underwent the Recruits' Course.

126,059 Men who underwent refresher or annual training.

The gross expenditure on Swiss National Defence for 1926 was 87,400,000 francs or roughly £3,460,000. It has been suggested that in this country without a standing army a militia can be organised and trained for a fraction of the present army cost. The figures for Switzerland, which is only half the size, and equal in population, are, therefore, illuminating.

The Swiss army mobilises with a speed and smoothness which can scarcely be credited by non-residents. On Saturday afternoon, August 1st, 1914, the mobilisation placards were posted up. On the following Wednesday afternoon all officers and men were sworn in, the frontiers being already occupied. The fact that the men come in uniform with their personal kit, equipment and rifles all ready for inspection adds considerably to the speed of mobilisation. Moreover, Switzerland from its size, is a country of short journeys, and mobilisation on a decentralised territorial basis is consequently rapid.

In the matter of initial recruit training the view held by practically all Swiss officers is that a minimum of 12 months is essential. This view was endorsed by the Swiss Chief of Staff some years ago when he made the following statement: "With our people, who have a martial spirit and a taste for the military profession, I consider the following as the minimum times necessary for training a soldier for service in war:—

Infantry ... 200 days

Cavalry ... 12 months

Artillery ... 300 days."

It is more than probable that financial considerations alone prevent Switzerland from giving effect to this view.

NOTE.—For much of the material for the foregoing I am indebted to Julian Grande's work—"A Citizens' Army"—published by Chatto & Windus, London. Those who wish to obtain greater detail of the Swiss system should secure and study this work. The Budget figures given are taken from the League of Nations' "Armaments Year Book," 1927-1928.

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THE MAKING AND USE OF MAPS.

An outline of the processes of Surveying and Mapping, with some comments on recent Developments, and Hints on the Study of Map Reading.

By MAJOR NIALL MACNEILL, Topographical Section, Defence Plans Division, General Staff.

MAPS form a very important part of the stock-in-trade of soldiers, both in peace-time training and in war, yet there is, perhaps, no part of military equipment about which their general knowledge is so vague and limited. This is not a fault peculiar to soldiers, nor is it due to any ordinary defect in their training. It is shared by the civilian. The importance of Surveying and Mapping is very little realised outside the ranks of those who have to deal with the subject directly. This assertion is truer, perhaps, of western European countries generally, and of this country and Britain in particular, than of any other part of the world. The reason for this is not far to seek. These countries were thoroughly and accurately surveyed a long time ago, and the work of revising the survey, though it progresses continually, is, perhaps, of all public services, the most unobtrusive. We have our maps and we take them very much for granted. Another cause of this general indifference is that in the prevalent method of teaching geography the subject of cartography is sadly neglected. It is pointed out in the preface to a recent historical treatise on maps* that the teaching of geography would be less dull and uninteresting if this were not the case. The scholar is taught certain things by the aid of maps, but the question of how the map itself came into being is completely overlooked. This attitude of mind towards maps is carried right through life by a great many map-users, and up till recently, at least, by military map-users as well as civilian. Though it may not conduce to any very harmful consequences in the case of the civilian, it may lead the soldier into serious difficulties. Modern military requirements make intelligent ideas, not merely on how to use maps, but on the general outlines of the problems of map-production, a matter of first-class importance to military officers of all arms. For that reason anything that will tend to clarify ideas on the subject cannot fail to be useful. An attempt is, therefore, made in the lines which follow to explain some of its more obscure aspects, in a manner shorn as much as possible of technicalities.

It is recorded that the Powers went to war in 1914 with little or no special provision for survey, and prepared only to maintain the supply of existing maps. Before the war was many months old their mistake was forcibly brought home to them, and the efforts put forth to remedy the defect, were big, though little heard of. At the conclusion of the war these same Powers had each several hundreds of troops employed on Survey duties, organised as specialist Companies or Battalions. The fallacy that in mapped countries the problem was merely one of reproduction and supply was killed for ever; and, moreover, it was definitely established that the need of Survey specialists was no less in mobile than in stable

*Maps, their History, Characteristics and Uses. Sir Geo. Fordham. Cambridge University Press.

warfare. In no instance was the demand for the services of Surveyors heavier than in the rapid war of movement which preceded the Armistice. Survey Troops are now regarded as an indispensable part of any force from a small expedition up to a large army.

Why, it will be asked, are Surveyors required in countries already mapped? The answer is a many-sided one. The manner of waging war has increased vastly in complexity. The competition between the belligerents is not merely one of evolving deadlier engines of destruction; it is also a competition in using them to the maximum advantage. Each new development sees an increase in the demand for precision and accuracy in locating one's own and the enemy's position. Mathematical precision comes more and more into play. All employment of artillery (save alone the use of field batteries under certain favourable conditions) requires precise measurement of gun and target positions, their distance apart, and the bearing of one from the other. Change to a new target is done by altering the measurement between the line of fire and a fixed Referring Object whose precise position has been established by the Surveyor and located on the map from information supplied by him. These methods affect even the machine guns. The requirements of the Infantry too, call for accurate, up-to-date, and easily usable maps. A simple and exact means of describing any position or direction, which will be independent of local "detail" is coming more and more into demand. Very few even of the more modern maps provide this. The system hitherto in use depended on the description of local "detail," the use of Sheet Numbers, or the employment of other complicated and inconvenient methods, all of which left too much scope for personal error. "Detail," even in peace-time, is continually undergoing change. In war the changes are more wholesale and rapid. In extreme cases we have instances in which no "detail" whatever is left. Even in mobile operations sufficient bombardment may occur to lead to confusion in the identification of positions. Descriptions of positions such as "under the 't' of Littleton" have been known to occur. There are few of us who have not come across mistakes in the description of sheet numbers, or failure to specify the scale of the map referred to.

Concurrently with the growth in the demand for accuracy, a system of map reference has been devised which overcomes all the defects mentioned. It is known as the "grid system." By means of it positions, distances, and directions can be described with an accuracy limited only by the accuracy of the map itself. Error in quoting a reference is rendered much less likely of occurrence. The one description holds good for all scales employing the grid. There is no need to invoke the nearby "detail" or the lettering on the map, or sheet numbers, as aids. A point once accurately described is unmistakeable and impossible of confusion with any other point, and this not alone on the one sheet, but on any sheet to which the grid has been applied. It would be out of place in an article of this scope to go into a more detailed description of the grid system. Many readers are already familiar with it, and those who are not will, no doubt, be given early opportunity of learning the little that need be known about it.

There is, however, another and important aspect of map work about which

very little is known, even by officers familiar with maps, and that is the subject of map projections. It is a topic which has been shunned as being far too vague and abstruse to come within the ken of ordinary mortals, and yet it is so intimately bound up with the questions of accuracy of maps and the gridding of maps, that some little must be known about it before one can claim to understand maps—or, at any rate, gridded maps—intelligently. Happily, on the other hand, it is quite unnecessary to seek a deep knowledge of it. Even the practical Surveyor can safely regard it as something which he need not master in detail, for the higher mathematical operations involved and disputations on the relative merits of various projections are things which are largely left to theorists and to professors of geodesy and mathematics. The practical application of certain ready-made formulae, the broad characteristics of the different types of projections, and the types most suitable for military use, are subjects with which the Surveyor-Officer should be familiar. The general body of Officers requires only an outline idea of what is meant by a projection and how it affects the production of the maps they use. To give such an outline idea is the maximum that can be attempted here.

The world, as we know, is nearly spherical. For the present purpose it can be regarded as a perfect sphere. Therefore (disregarding local irregularities of the surface, such as hills), any given portion of the earth's surface is somewhat convex in shape. Limitations of the material at our disposal require that representations of the earth's surface must be made on a flat medium, *i.e.*, a map is normally drawn on a sheet of paper. It will be obvious that a strictly true representation of a convex surface on a plane medium is impossible. A piece of paper cannot be made to lie on a globe (of the kind used in schools) without folding or creasing it to some extent. In order to get over the difficulty, a mathematical adjustment is made, with the object of representing the detail of the convex surface of the earth as accurately as possible on the flat surface of the paper. This is what is known as a Map Projection. It will be seen, then, that there can be no such thing as a perfect map. There are many types of map projections, differing according to the means adopted for adjusting the representation to fit. Some preserve shape, some scale, some area, but no one projection can preserve all three. In order to get the representation on the plane surface one or more of these characteristics must be sacrificed to a greater or less degree—in a word “something has got to go.” From a military point of view the projections that best preserve bearings and distances are to be preferred. Normal civilian requirements make true representation of area the main desideratum. Hence we have it that the large scale plans which are mainly used for land valuation and purchase purposes are projected in one way, while the topographical maps (whose principal importance is their military value), though based on the same survey, are projected differently. It is necessary to point out here that the application of a projection is effected by means of the graticule, *i.e.*, the shape which the lines of latitude and longitude take when drawn to that projection. It is scarcely necessary to state that every point of detail is not independently adjusted. The graticule is plotted, and the draughtsman's job is to fit the detail accurately into it. Anyone desirous of pursuing this subject further would do well to read the text book: “Map Projections.”* Without going into the mathematical aspects of the subject,

* Map Projections, A. R. Hinks, M.A., F.R.S., (Cambridge University Press, 1921.)

a very thorough general idea of it may be got from the opening pages of that work.

The grid, to which reference has already been made, is directly related to the projection employed. Briefly, the grid is a rectilinear system used for simplicity in substitution for the curvilinear figure which the graticule would present if drawn on the map. By means of the grid we can describe any point by rectangular co-ordinates, *i.e.*, by its distances measured in straight lines on the map from an assumed "origin" or zero point.

Determination of the projection to be used, and plotting the grid, though important, are but a small part of the work involved in map preparation. Indeed they do not come into play at all until certain preliminary measurements have been made and data obtained.

Assume that we have a case of a country never mapped before. Rough sketches or surveys of the whole or any part of it could be made at haphazard, but for the purposes of accurate mapping they would be of comparatively little value. In a systematic survey the first step is the accurate measurement of a base, *i.e.*, a level straight line on the ground which forms the basis of the rest of our work. We wish not merely to fix the relative distances apart, etc., of places within the country, but also to fix the country's place on the globe and its true orientation in relation to other countries. Another step, therefore, is to fix the latitude and longitude of the ends of the base, or "base terminals" as they are called. This is done by instrumental observations of heavenly bodies. Other points are then selected and observed from the base, such that a system or network of triangles is formed, commencing with the base and extending over the whole country. Triangles are chosen, rather than other geometrical figures, for the reason that the most practicable form of measurement on the ground is the measurement of angles, and that the science of trigonometry provides us with an easy means of measuring an area split up into triangles. The linear measurement of a base gives us a side, and the angular measurements from the two ends of the base to a third point outside the base give us two angles, and from these data all the remaining measurements of a triangle may be deduced. The remaining sides of this first triangle give us bases for other triangles, and so on. Sometimes a second linear base is measured at another part or extremity of the triangulation as a check on the accuracy with which the measurements and computations have been made. This first system of large triangles with which a country is so covered is called the Primary Triangulation. It is usually sub-divided later into Secondary, Tertiary and sometimes Fourth Order Triangulations, each system being one of smaller triangles within the preceding system. It is scarcely necessary to point out that the standard of accuracy demanded is greatest in the case of the Primary Triangulation, but in all these preliminaries to mapping great accuracy is aimed at. Instruments of great precision are used, and each step is checked and repeated in order to eliminate the risks of personal error, and so on. In our own country all this work has been done quite a long time ago (it was begun just over one hundred years ago), and done with such care and accuracy that even the improvements in instruments and methods which have since been evolved would be unlikely to lead to any appreciable improvement in the final accuracy of the work if repeated.

Having completed our Triangulation the next step is to survey the "detail," *i.e.*, the natural and artificial features on the ground. It is not proposed to go very deeply here into how this is done. There are various methods according to the kind of ground, the type and scale of map, and the accuracy of work aimed at. Readers who have done any plane-tableing are already familiar with one very useful method. In some cases compass traverses of the kind done on courses at the A.S.I. are resorted to. The most recent development, and one which will probably be much used in future surveys, is aerial photography. One point, however, should be borne in mind, and that is that whichever method is employed, precise preliminary work (fixing of points) on the ground is indispensable if an accurate map is required. There is no development of aerial photography visualised so far which will eliminate the need for this preliminary groundwork.

The information about the detail on the ground—in whatever form it may be—is next brought into the Survey Office, and from this stage onwards the work is largely indoor. It consists of a variety of processes, including drawing, photography, and printing, whereby the work is put into the form in which it finally reaches the map-user; processes so varied and complicated that any attempt to describe them, even briefly, would be impossible here.

The map, once made, is kept up-to-date by periodic revision. This is done by sending surveyors back to the ground, who take the map with them, measure the changed features, record the alterations by drawing them in on the spot, and cancel any detail which has disappeared. The corrected work goes back to the office, and is incorporated in any subsequent editions published. In this country the standard at present aimed at is to revise each county completely once in twenty years. This system has the disadvantage that any given sheet purchased may be as much as twenty years out-of-date, or more (for a considerable time elapses between the actual revision on the ground and the time the revised edition reaches the public). The writer recently heard an interesting suggestion to the effect that a local official in each area should be made responsible for revising the manuscript originals as the changes took place. This might be done either by reorganising the distribution of the survey staff, or by training existing local officials to carry out the work as part of their duty.

So far we have been concerned with the work of the map-maker. Let us now briefly consider the task of the map-user. Essentially it is a simple one, yet it inspires many (Officers and N.C.O.'s included) with a certain amount of awe. Not all officers—it must be admitted—possess the requisite proficiency at map reading. This defect is by no means peculiar to ourselves, for records exist which disclose that it was a common trouble during the European War. There was in that case, however, the excuse that most of the personnel were war-time levies. Regular officers who have had several years' service in peace-time cannot continue to be inefficient map-readers and expect to escape blame. Fortunately there is nothing very mysterious about it. The difficulties which many conjure up for themselves are largely imaginary. Nothing more than a fair grasp of elementary arithmetic, coupled with average common sense and powers of observation, are required as mental equipment for the study. The meaning of the conventional signs are, in

most cases, self-evident, and where obscure are usually explained in the marginal tables. In nothing has more imaginary difficulty arisen than in connection with converting true into magnetic bearings and *vice versa*, but a little clear thinking aided by easily-drawn diagrams should lay the spectres of the imagination and show that there is no need to learn rules by rote. The commonest fault in map reading, and one which all officers and as many N.C.O.'s as possible must overcome, is inability to read "contours." From a military point of view it is of the utmost importance that what a map can tell about the configuration of the ground should be readily understood. There is no real difficulty in this, and error—where it occurs—is due again to want of clear thinking and to lack of practice. Yet, despite this simplicity it is surprising how often otherwise intelligent people interpret maps in a way that could not be correct unless water were to flow uphill. Then there is the matter of map references. The fault here is not an individual one, but is due rather to the lack of a good and uniform system. Given such a system, the description of a point by its co-ordinates is simplicity itself.

The prime cause of inefficiency is want of practice. Instruction is of little value if, on its conclusion, maps are put away until circumstances again compel their use. Every officer would be well advised to have and to use a map of the district in which he lives. He can, not alone familiarise himself with the district by the aid of the map, but also with the map by the aid of the district. Any journey into a strange country or abroad may be availed of to improve map-reading in a pleasurable and useful way, by relying on maps rather than on verbal enquiries as a means of finding the way. Verbal information obtained by the roadside is notoriously unreliable, and at its best can never equal the knowledge which a good map confers on one able to read it properly.

Finally, a word about the choice of maps. There are many "popular" editions of maps offered for sale by private firms. It should, however, be borne in mind, that practically without exception such maps are copied from the Survey Maps. In quality they vary very much. Their popularity is largely due to four things, viz.:

- a. They are well advertised.
- b. Single sheets usually cover very large areas.
- c. The cover designs and colouring are attractive.
- d. The scale and method of showing road features appeal to motorists and tourists.

The public are not generally aware that survey maps are available to every scale suitable for popular uses. The real usefulness of large sheet sizes is very questionable; it cannot be denied that large sheets are awkward to handle. The fact remains that no maps excel the Survey Maps in accuracy or legibility. The latter are printed in a variety of styles and sizes sufficient to meet all ordinary requirements efficiently. In price they compare favourably with any others. The State Survey Service is financed from public funds and by the proceeds of map sales. The more Survey Maps sold, the less does the Survey Service cost the taxpayer. Few, if any, of the proprietary maps on sale are published by Irish firms. The purchase of Survey Maps, therefore, has a threefold advantage; it ensures that the purchaser gets the best available, it tends to reduce taxation, and the money spent remains at home.

A COMPARISON OF SIGNAL SYSTEMS IN THE FIELD.

By COMDT. J. SMYTH, A.S.C.

The Field Telephone.

THE perfect signalling system is that provided by the telephone. This service, however, must always wait until the field cable is laid. Its great advantage is that commanders and subordinates can get into direct personal touch with one another, thus eliminating the possibility of misunderstandings through the introduction of the third party.

On the other hand, the field telephone, with its associated cable, has many limitations:—



Cable Detachment ready to move off after erection of Pole Crossing. ["An t-Oglach" Photo.]

1. A large amount of wire, poles, etc., is required.
2. The personnel necessary to manoeuvre the cable carts and horses, lay and pick up cable, etc.
3. The risk of damage to cable by enemy fire, transport, etc., is considerable.
4. Cable cart and party are easily identified by enemy.
5. Tactical movements of any consequence necessitate picking up and re-laying cable.
6. Enemy can sometimes overhear.

Fullerphone.

This instrument, like the Field Telephone, requires a wire connection between stations. It possesses the disadvantages of the Field Telephone with the exception of No. 6: (it is immune from overhearing by the enemy).

Ground Wireless.

This is a bulky and elaborate installation consisting of a make-and-break induction-coil as transmitter, and a 3-valve amplifier as receiver. It can generally be relied upon to give signals through the ground up to about 3 or 4 miles. Intervening railway lines, wire fences, minerals in the ground, etc., reduce this distance. Consequently the system cannot be relied upon except through ground which has already been proved suitable by experiment.



[“An t-Oglach” Photo.]

Close-up view of Cable Cart.

Wireless Telegraphy.

This system possesses the advantage of mobility and operating speed (20 to 30 words per minute). The signals are transmitted in all directions and are effective over all classes of ground.

Lamp.

This approaches the ideal in so far as visual signalling is concerned. The focussed ray from the lamp covers only an angle of $2\frac{1}{2}$ degrees. At a distance of 3 miles the beam spreads over a lateral distance of about 250 yards. The signals are thus shut off from enemy observation save except in this small area. The instrument is compact and light. It can be carried by one man.

Flag and Shutter.

The apparatus in both these systems of signalling is simple and portable. They are, however, frequently responsible for disclosure of position to the enemy. Their use is also limited by intervening objects, fog, smoke, etc.

The above is a brief summary of the principal means of field-signalling.

Visual signalling is seldom used in modern warfare. The distances to be covered by signals in a manoeuvre area, and the importance of screening all activities from enemy observation may be taken as pretty well discounting visual signalling—except on a minor though sometimes important scale, e.g., for short distances when the terrain is suitable—as in inter-Company or Company to Battalion communication, etc.

The main struggle for signal supremacy is that between wire (telegraph and telephone) and wireless. It is difficult to estimate to a nicety the relative value of these two systems seeing that they both possess so many advantages and disadvantages from a military point of view. Suppose we discuss each point separately and strike a balance in favour of one or the other in each case.

Overhearing by Enemy.

Wireless certainly loses badly here as the signals are radiated from the transmitting aerial in all directions, and there is nothing to prevent the enemy from listening provided he has a suitable receiving set and an expert operator available. In order to trap signals from the multitude of wireless transmissions which normally take place in, say, a Division, the enemy would require quite a number of listening stations manned by his most expert operators. Normally it is quite a difficult matter to successfully man and operate a Divisional wireless service. Interception by the enemy is, therefore, bound to be intermittent. He may or may not intercept an important message.

Buzzer telegraphy or telephony over a wire line within 2,000 yards of the enemy and in some cases at even greater distances may be picked up by means of special listening apparatus, so that the balance in favour of wire over wireless, as regards secrecy, is, after all, not so very great.

The Fullerphone is a type of telegraph instrument which ensures secrecy. Uniform line conditions are necessary for the successful operation of this instrument. A long cable with poor insulation (covering) touching damp ground, trees, metallic substances, etc., would provide only a poor Fullerphone circuit. Perfect conditions seldom exist in action.

On the whole **the wire scores, shall we say, a point.**

The expedition with which tactical units can be connected by wire and wireless now calls for consideration. Wireless takes first place in this respect, and its tactical use is simplicity itself. The wireless station accompanies the tactical unit which it serves, and the erection of a field-station at any time is only a matter of a few minutes. In the case of a mobile car-station, communication can be kept up on the move. On the other hand the connection of two or more units by wire is quite a laborious undertaking. The average rate of paying out cable is 3 miles per hour, and the route from one unit to another may be any distance, depending on the suitability of the terrain. Again, a cable detach-

ment is quite a conspicuous group from the air, and the cable itself when laid on the ground is sometimes visible from the air, thus acting as a pointer to important positions.

For expedition in setting up communication, wireless deserves a point.



[“ An t-Oglach ” Photo.

Portable Field Wireless Station (back view).

The question of **vulnerability** is now to be considered. Cable is liable to breakage at all points, not only by enemy fire but by friendly transport, etc. Again in rapid follow-up actions and retreats it is not possible to reel up cable. There is always a big demand for fresh supplies of this bulky and expensive material.

Wireless may be said to be vulnerable inasmuch as the enemy direction-finding stations may locate and direct artillery fire on the approximate position of a wireless station. This can be circumvented to a great extent by changing the position of stations. Direction-finding, however, except in the case of a moderately high-power station, is a difficult matter, particularly when several stations are working on or near the same wave-length. Co-operation between the direction-finding station and the one to be located is usually necessary for successful direction-finding work.

On the whole, wireless scores from the point of view of immunity from damage by the enemy.

On the question of **transport**, the balance is in favour of wireless, notwithstanding the fact that wireless entails frequent changes of batteries. However, it is anticipated by wireless research-workers all over the world that in the near future the batteries required for field wireless transmitters will be replaced by a type of hand-driven generator. Such a machine is already on the market—but protracted experiment is still necessary to test its value as compared with that of the battery.

Now comes the question of **personnel** required to operate and maintain the systems. A Division with, say, 30 wireless stations, is taken for the purpose of calculation. The number of operators required to work either a wire or wireless telegraph system may be taken as much the same. In the case of wireless it is necessary, in addition, to staff a battery-charging station and field workshop, and also to run say half-a-dozen motor-cycles and side-cars for collection and distribution of the batteries. This means a matter of about 15 or 20 men in addition to those actually engaged on wireless operating.

In the case of the wire, we have 7 cable detachments, each working a 4 or 6-horse cable-laying wagon, and at least another 7 accompanying cable-carrying limbers or wagons. This engages the services of about 70 N.C.O.'s and men. To this number must be added the linemen necessary to maintain the cable under fire and accidental breakages. This number may be anything from 30 to 100 depending on the line routes and enemy fire, etc.

A complete wire system serving a force with 30 field signal stations would entail the laying of between 20 and 30 independent trunk lines varying in length from 1,000 to 3,000 yards or even greater distances i.e., in or about 30 miles of wire.

Thus we have, in the case of wireless, in our supposed Division, about 20 N.C.O.'s and men over and above those required for operating the system. In the case of wire we may have anything up to 200 or more additional N.C.O.'s and men.

The wireless is an easy winner as far as man-power is concerned.

Communication with Aircraft.

Obviously wireless stands out on its own in this respect. Signalling to or from aeroplanes is of necessity either visual or wireless. In the case of captive balloons, however, the telephone, with wireless as a stand-by, is invariably used.

Now comes the final point—interruption by enemy. Wireless can be interrupted by a powerful enemy installation sending out signals which jam or in-

interrupt all other stations within range. It must not be overlooked here that in so doing the enemy interrupts his own stations to a much greater extent owing to the greater intensity of radiation in the immediate neighbourhood of the interrupter. Again, a station sending out powerful interrupting signals is an easy



["An t-Oglach" Photo.]

Portable Field Wireless Station carried by three men (front view).

type of station to locate by direction-finding. Counter-battery activity would for the time being be transferred to such a station.

The enemy cannot interrupt a wire system electrically except by direct connection with the wire itself. He can, however, by artillery concentrations on

likely or observed wire routes, cut the system up to such an extent as to render it useless notwithstanding the number of linemen engaged on repairs. The remedy for this is buried cable, which entails the labour of additional hundreds of men who should normally be engaged in fighting. On the whole the cable has very little advantage as regards immunity from interruption.



Portable Field Wireless Station in Operation. [*"An t-Oglach"* Photo.]

Given both systems working at their best without interruption of any kind, the wire is an easy winner, as the telephone brings the commanders of all units in direct touch with one another.

Summarising the above, we find that as regards :—

- (a) Overhearing by enemy—the wire scores.
- (b) Expeditionous connection and tactical manoeuvring—wireless scores easily.
- (c) Immunity from damage by enemy—wireless scores.
- (d) Transport—wireless scores.
- (e) Personnel—wireless scores.
- (f) Communication with aircraft—wireless scores.
- (g) Immunity from enemy interruption—wire scores.

Seeing that both wire and wireless possess so many advantages and disadvantages, no modern army is completely equipped without both, not as competitors, but one as a stand-by or complement to the other.

As long as wire and wireless serve the civil business community, so long will they remain a necessity for the business of war.

The modern trend of wireless invention is in the direction of secrecy and immunity from interruption. The beam system has gone a long way in this direction for inter-Continental work. No doubt the application of this system to field-work with low power sets is only a matter of protracted research and experimental work.

Capt. T. C. Beckett, M.C., R.A., writing in the Journal of the R.A., April, 1928, sums up in favour of wireless in the following words :—

“ Let us then construct without further delay the web which will bind our whole system of close support together—radio telephony.

“ Admitted the possible lack of secrecy, line telephony is not immune from admitted breakdown through jamming. Are we any worse off than with our lines cut to pieces?

“ Bulk of apparatus in case of wireless is outweighed by cable cart, bulky reels and line personnel.”



PERSONNEL ASPECTS OF MILITARY SYSTEMS.

(LECTURE DELIVERED IN DEFENCE PLANS DIVISION).

By CAPTAIN SEAN O SUILLEABHAIN.

Organization, Discipline, Training.

Organization, discipline, training—these may be referred to as the trinity which go to make an Army. Through the agency of this trinity the mob becomes a man-power machine capable of 100 per cent. efficiency. Of this trinity discipline alone may be regarded as a fixed quantity, a factor which neither state policy nor economy can seriously affect. Not so with organization and training. Organization must conform to the policy of the State in matters of national defence, while both organization and training are subservient to economy, and it has been the experience of most armies that in the sacred name of economy the heart strings of efficiency are severed.

Military Systems.

To-day I will endeavour to analyse various military systems with a view to drawing comparisons and eliciting general principles. To secure a good military system we must have a fusion of that system with the national, political and economic life of the state. Militarism as such has practically disappeared. Government of the people by the people has given it its death blow. Born in the days of feudalism and serfdom it could not possibly exist in the age of freemen. Its demise has not resulted in a lesser degree of efficiency: on the contrary there has been a more complete fusion with the political and economic life; motive, morale and loyalty have been placed on a higher plane while there has been a closer co-operation and intermingling of the classes.

All modern military systems are based on

Classification of.

- (a) Compulsory service system, or
- (b) Voluntary system, or
- (d) a Combination of (a) and (b).

Practically all European powers base both their peace and war organizations on the compulsory service system. England alone, in Europe, relies on the voluntary system for peace and war establishments, though it may be taken for granted that in a war of the first magnitude she would again resort to conscription as she did in the Great War. In the United States all peace-time organization is based on the voluntary system, but under the National Defence Act all citizens, both male and female, are liable for military service in time of war.

Compulsory Service.**Its Advantages.**

It is well to point out that compulsory military service or, as it is generally termed "conscription," is not properly understood and is often construed to mean something utterly foreign to what it actually is. It simply involves *liability* for military service in war, and, in some countries, limited periods of training in peace. Nations relatively weak in man-power, or nations in close proximity to powers of equal or greater magnitude, must, of necessity, organise and train for war to an extent far greater than those strong in men and armament and comparatively safe from surprise invasion. While in England and the United States "peace" normally reigns, it may be truly said that on the European continent, though peace is maintained, it is war that reigns.

As a natural result we have a concentration of peace-time training and organization in these latter countries which cannot be adequately visualised by outsiders. The system of compulsory service permeates all the relations of life and influences the whole question of national defence in numerous ways. In those countries, service is not considered as a burden, but rather as a privilege whereof no self-respecting man would willingly be deprived. The Army is not divorced from the people, but is an integral part of their social life, a part to which they are all related or linked by ties of one kind or another. Every male citizen looks on the soldier as a fellow worker in the life of the nation, a prospective comrade in arms, a "pal" in every sense of the word. Just consider what a tremendous asset this fusion of the military and national life is to morale, *esprit de corps* and sense of duty. In nations, where national service in a military capacity is considered a citizen's prerogative, where none is excluded save he who is physically or mentally defective or those who have become criminal outlaws and from whom the higher privileges of citizenship have been withdrawn, compulsory service, or what we loosely term conscription, holds no horrors. All continental European Armies save those of Germany and her late Allies are recruited by compulsory service. In the case of Germany, Bulgaria, &c., the Treaty of Versailles has forbidden compulsory service and also fixes the limits of voluntary recruitment.

Perhaps this latter fact, *i.e.*, the forbidding of compulsory service in Germany and allied powers is one of the most striking proofs of the value of such service. That England has not adopted this form of service, though recognising its worth, may be accounted for in several ways, *e.g.* (1) compulsory service is more intimately associated with defence than offence, (2) England's first line of defence is her Navy, (3) she maintains a standing force sufficiently strong to undertake and prosecute a war, while line after line of volunteers or, in the alternative, conscripts, are being trained to augment her field forces and replace her casualties, (4) her economic and industrial life requires essential non-combatant man-power on a large scale, (5) some of her pet theories would be shattered, her Magna Charta would be violated and her proud boast that "The Englishman's home is his castle," would cease to be as absolute as it otherwise appears to be, (6) her people, through her Parliament, would not be so eager to undertake wars of aggression if all her citizens were equally liable for service, (7) no form of compulsion could justly impose expatriation.

The Dominions of Australia, Canada and South Africa have adopted varying types of compulsory service for home defence.

Japan, the only great Eastern Power, has adopted the French system of compulsory service.

Compulsory Service

versus

Voluntary Service.

As I said before, compulsory service involves universal liability to service. By this system all, or nearly all, the men of military age are drawn into the active army for a continuous period of short service training, after which they pass successively to the reserve, the Landwehr, or second line, and the Landsturm, or last line. In this way the greatest number of soldiers can be obtained on the cheapest costing basis and the available reserve is in theory the able-bodied manhood of the country. In practice the annual levy is not exhausted, and increased numerical strength can be obtained by reducing colour-service to a minimum. In different countries the periods of colour-service vary from one and a half years to three months. The best manhood of the State is trained and made available for war. From the financial viewpoint it is contended that for a given expenditure at least three times as many men can be kept under arms by the compulsory system as under any known "voluntary" system. The available reserve is, as a consequence, of far greater magnitude than any reserve that is based on a "voluntary" system. Additional advantages are: increased cohesion between the army and civil population; the Army includes all classes (not one or two classes); the national life is strengthened to a considerable extent; there is less danger of internal disunion. Military training adds more years of usefulness to the end of a man's life than are taken off at the beginning. Military training inculcates principles of organization, cohesion and discipline which are invaluable assets in the industrial and business life of the State.

The principal disadvantages of the compulsory service system may be briefly summarised as follows:—

Disadvantages :

- (1) Short service demands the good will of all ranks, and such armies will undoubtedly contain many who cannot be made good soldiers. By shortening the colour service and thereby drawing on the masses to a greater extent you ensure an eventual residuum of the bravest men and best soldiers.
- (2) It is difficult to get the best type of N.C.O. to re-engage. The best men generally return to civil life. Inferior men are, therefore, promoted—men who wish to avoid the struggles of civil life—men who seek to cover by severity their own inferiority.
- (3) Conscription in its proper sense is probably the greatest drawback to the compulsory service system. Conscription or the selection by lot of a proportion of the able-bodied manhood is now rarely practised. It provided for the admission of paid substitutes so that in practice the wealthy rarely rendered service, their places being taken by professional long-service soldiers engaged by several successive conscripts. Those who could not afford service by paying substitutes were naturally unwilling to serve, and only did so under

a sense of wrong and unfair treatment. The nett result of conscription was that the bulk of the nation's manhood remained untrained and, in effect, the country possessed only a large standing army with practically no reserve. Conscription, as formerly practised, is now obsolete.

Voluntary System The advantages of the voluntary system are roughly as follows :—

Advantages.

- (1) No man is an unwilling soldier.
- (2) The best material can be selected for promotion.
- (3) There is no excessive drain on economic resources.
- (4) It provides means of livelihood for those not absorbed in the industrial life of the nation. (This is not an advantage from the purely military standpoint).
- (5) The voluntary army is always available for general service.
- (6) It may be reckoned as thirty per cent. more efficient than the compulsory service army of the same size.
- (7) The voluntary soldier has generally better fighting qualities than the average man.
- (8) In a state where small armaments are maintained during peace, a voluntary army is claimed to be superior to any that could be obtained under any system of compulsion. The smaller the peace-time army the more selective can be the system of recruiting. A large force requires raw material of an inferior kind and is costly.

Its disadvantages are :—

Disadvantages.

- (1) A large percentage of the nation's manhood is never touched by voluntary recruitment.
- (2) The army is practically divorced from the people.
- (3) A reserve is slow to build up.
- (3) Unless recruiting is highly selective you get nothing but the poorer elements of the population.
- (5) Rates of pay must be made attractive, thus entailing increased *per capita* expenditure.
- (6) You may possibly be nothing more than a training ground for other armies.
- (7) The prestige of the army is low.
- (8) Since recruitment is dependent on the good will of the people, training and discipline cannot be as rigorous as in compulsory service armies. Therefore, it takes longer colour-service to turn out an efficient soldier.

Militia System. A third system of military organization, which is the exception rather than the rule, is the militia system. The principal exponent of this system is Switzerland. There is no regular army : the men remain under arms for the duration of a war or campaign and return to their ordinary occupations at the close of each military episode. A form of militia existed in England until 1908, when it was converted into an Army "Special Reserve," and was replaced, to some extent, by the Territorial Force. Unified national outlook is essential to the Militia System.

Territorial Organization.

The Territorial system is really not a self-contained system, but is used in various modified forms as portion of various systems. It may be defined as a system whereby, for the purposes of command in peace, of recruiting and of organization generally, the country is divided into districts which are again divided and sub-divided as required. In other words, units are localised for all purposes. The Territorial system is not inconsistent with the compulsory service system, but it is in fact an easy way to decentralise the universal service organization. For economy in money and time both as regard mobilisation and training the Territorial system has distinct advantages. The National Guard of the United States is, in fact, a Militia organization on a territorial basis. The Swiss Militia is also similarly organised, while the County Associations of the English Territorial Forces are sufficiently indicative of their decentralization. In England, of course, the system is based on voluntary recruiting.

Comparison of Systems.

By a comparison of the various military systems obtaining in the

United States,
Great Britain,
Australia,
Canada,
South Africa, and
Switzerland,

we will be in a better position to judge their relative values and elucidate main general principles.

* * * * *

Life Careers.

The first salient feature to be observed is that in the voluntary systems of England and the United States life careers are offered. By re-enlistment or re-engagement, men can confidently look forward to twenty years or longer of army life with pensions on final discharge.

In the compulsory systems, on the other hand, only a very small number of men are permanently employed. As a result the men of these countries are primarily civilians and return automatically to civil life on completion of their recruit training.

Reserves.

The compulsory system is, apparently, the only feasible system for building up an adequate reserve. For small, poor countries a small standing force with a huge reserve appears to be the best form of military organisation. A huge reserve does not appear to be practicable under a voluntary system.

The establishment of a reserve in England cannot, under any circumstances, be regarded as a success. Yet each regular reservist costs her 1s. per day. The United States, even with ultimate compulsion, always in the background, is very little better in the matter of reserves. Both these countries depend on

- (a) Their Navies as first lines of defence.
- (b) Their huge Standing Armies as being

sufficiently strong to hold any invader or prosecute any war while their manhood is being mobilised and trained.

Switzerland, on the other hand, may need to put her entire resources of man-power into the field at the shortest possible notice, and she is consequently organised to do this.

Preparatory Training.

The value of preparatory training through the medium of schools, cadet corps, gymnastic clubs and other boy organisations is strongly emphasised. England does not show this boy training, but we all know that her boy scout organisation which receives powerful patronage and support is nothing but a form of preparatory military training. In this matter of boy training, which costs virtually nothing, our own country has made no move, though foreign associations are active in our midst. All associations of a military, or semi-military, nature should have for their main objective national defence, and all or any associations of this nature foreign to the national outlook of the State should not be allowed to exist or be tolerated within the State. They may be regarded as cancers in the national life and may become serious menaces to the national well-being.

Common Features.

The salient features, more or less common to all the systems we have examined are :—

Preparatory Training.

Recruit Training.

Refresher courses for Reserves.

Cadet Corps.

Reserve of Officers.

Rifle Clubs or Associations.

Territorial decentralisation of all Reserves.

Preparatory Training at Home.

Now, as regards our own country, we are in a position to secure preparatory training without any or, at least, at very little cost.

Our Schools and Colleges can, and should be compelled to, teach the following subjects :—

Physical Training.

Elementary Drill.

Hygiene and Sanitation.

Scale Drawing and Map Reading.

First Aid.

Surveying and Plan Drawing.

These are all recognised subjects on the school programme. In our rural schools the young age at which boys leave school does not admit of very advanced teaching in those subjects, but our technical, town and secondary schools have no such excuse. To the subjects already mentioned might be added visual signalling, military history and elementary field engineering. It is to be hoped that when a definite policy of national defence is being drafted the question of boy training will receive

the consideration it deserves. It is compulsory preparatory training, continued and extended in later life, coupled with the establishment of Rifle and Gymnastic Clubs and Associations that enables Switzerland, Australia, and South Africa to cut down the initial period of recruit training to a minimum. An association similar to the British Boy Scouts would serve admirably as a continuation school of military training.

Recruit Training. On the question of recruit training most authorities are practically agreed that the minimum period should be, at least, twelve months. Incidentally the younger the recruit the easier he is to train and the longer he can be held as a reservist.

Recruiting Aids. The education of the soldier, while actually serving; the teaching of trades to soldiers; an earnest practical policy of re-settlement in civil life; the earmarking of certain government and municipal positions for reservists are all powerful factors in securing voluntary recruits. Soldiers, while serving, must be treated fairly and impartially, according to their service and ability. The soldier who leaves the army under a sense of wrong or unfair treatment not only becomes hostile to the army, but becomes a serious menace to recruiting generally.

Age Factor. The Swiss Landsturm, or last line, does not go beyond forty-eight years of age, and most army authorities agree that the best military age is eighteen to thirty-five. Is it, therefore, desirable or economical to retain in our army men ranging from forty-five to sixty years of age? If we are to build up a really efficient training force we should concentrate on securing carefully selected young men and offer them an army career of at least twenty years.

(NOTE—The policy outlined by AN T-OGLACH in the matter of Juvenile Organisation aims at the development of civic character. Desire to serve their country in a military capacity naturally follows. Military training as outlined by our contributor cannot be approved as the primary justification for such Organisations.—Fear Eagair.)

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THE BATTLE OF KILMALLOCK.

By C.Q.M.S. MICHAEL QUIRKE, 4th Infantry Battalion.

THE successful attack on the R.I.C. Barracks in Ballylanders on the night of the 29th April, 1920, put great heart into the I.R.A. in Limerick and in Tipperary. The booty, which was secured after the taking of this enemy stronghold, consisted of seven carbines, five Webley revolvers, some hundreds of rounds of .303 ammunition, and some few rounds of .45 revolver ammunition. This was a most welcome addition to our armament, which was very low indeed. It was felt that this very material addition to our resources, together with the experience which we had gained in this type of fighting, enabled us to take on a much stronger force of the enemy. It was almost immediately decided that we would attack and capture Kilmallock R.I.C. Barrack.

Our Intelligence Service was at once put to work on this barrack with the object of ascertaining its full strength, the dispositions for defence, and the routine and movements of the garrison. It was discovered that the normal strength of the barrack consisted of two sergeants and eighteen men. The barrack was a very substantial one, and all the windows were steel-shuttered and rendered bomb-proof on the outside by means of wire netting. In addition to a plentiful supply of ammunition, the garrison was well provided with rifle grenades and Mills bombs. In short, the police were in the position of an exceptionally strong military force with every prospect of holding out for days against even overwhelming numbers.

The barrack, however, had one drawback, of which it was felt great advantage could be taken by attackers. Situated in the main street of the village, it was a rather low, squat structure, strongly built, but overlooked by higher buildings adjacent to it. This gave the attackers, provided they could occupy these buildings successfully, a dominant position.

With regard to the movements of the garrison it was learned that, whilst normally the strength was two sergeants and eighteen constables, this number varied almost nightly. Individual R.I.C. men came and departed by train on special plain clothes duty. Occasionally they came by Crossley tender, so that it was never possible to say accurately what was the strength of the garrison on a particular night. In point of fact it so happened that on the night of the attack the garrison consisted of twenty-eight men.

Few people realise even to this day how poorly the I.R.A. in the provinces were armed. In our area service rifles were few and far between—and for the attack on this stronghold the greatest difficulty was experienced in getting even thirty rifles. Some twenty rifles were scattered through the East Limerick and South Tipperary districts. These were ones that had been retained and concealed following the countermanding order in 1916. It was with one of these—an old German 7 mm. Mauser—which I had possessed since 1915—that I was armed.

Finally, our leader, Brigadier Sean Forde (Tomás Malone), decided that the night of the attack was to be the 27th May, 1920—just one month after the successful attack on Ballylanders, which we hoped to completely eclipse.

Preparations for the attack were pushed steadily forward. On the previous day I was detailed by Comdt. Sean Lynch, my Battalion Commander, to convey by horse and cart eleven hundred rounds of .303 ammunition from the house of "Sack", Hayes, Kilross, to the house of David Clancy, near Kilfinane, a distance of about eight miles, on the main road leading from Kilmallock to Tipperary town.

At the appointed hour I met Comdt. Lynch and another comrade at Hayes', and, having loaded up the ammunition, set out on what was a very hazardous journey. I had to traverse a frequently patrolled main road, on which people were frequently held up, questioned and searched. In this journey I was preceded by two cyclist scouts. In the course of the journey, however, the scouts seemed to lose sight of the fact that they were rapidly outdistancing me, but this error on their part had very fortunate results for me indeed.

Midway between Kilross and Kilfinane, at a place called Garryspillane, I observed in the distance the rapid approach of two military lorries carrying British soldiers and R.I.C. men. There was no possible means of avoiding them, as I had nowhere to turn, and was within their vision as soon as they were in mine. They were a remarkably unsuspecting patrol. The two cyclists were allowed to pass unnoticed, and were too far ahead in any case to have given me successful warning of the approach of the enemy. Luckily they did not attempt any signal, but simply cycled past. As the lorries approached I jumped down off the cart, and ran to the horse's head, holding up my hand at the same time for the lorries to slow down. The horse was naturally mettlesome, and I judged it best to put on a bold front, and take full advantage of the horse's restlessness. The lorries considerably enough slowed down and stopped (which was more than I bargained for), and two soldiers and one R.I.C. man got off a lorry and came over and assisted me to lead the horse to the rear of their cars.

Needless to say, I thanked them profusely for their kindness, and lost no time in getting on the cart and hastening on my way. It was a nerve-racking few minutes. What trifles great events turn upon? Had my two comrades been the proper distance ahead they would almost certainly have given some kind of warning, which would, in all probability, have been observed by the oncoming enemy and their suspicions aroused with fatal consequences. Again, had the R.I.C. man, when he was down on the road, evinced any curiosity, discovery was almost inevitable. However, the rest of the journey was made without incident, and I deposited the ammunition in Clancy's, quite convenient to the town of Kilfinane.

The rifles, some ammunition and all available shot-guns were dumped on the western side of Kilmallock, under the personal supervision of Brigadier Sean Forde; the greater portion of ammunition, bombs and explosives was dumped on the eastern side, under the supervision of Comdt. Lynch.

It was too much to hope that so strong a barrack could be carried by a short, sharp attack. It would obviously have to be besieged. This constituted the greatest part of our task, because a protracted fight would certainly lead to the possibility of reinforcements coming to the relief of the garrison. Our force was too small for the risk to be regarded lightly.

All available help in the entire district was accordingly mobilised at 9 o'clock on the night of the attack, and all main roads, bye-roads, and railway tracks for a radius of about fifteen miles around Kilmallock were rendered impassable for any form of traffic. A prodigious amount of labour went into this work, but it was voluntarily, cheerfully and effectively done, and it was well indeed that it was so, for the barrack proved a far tougher proposition even than we had counted upon.

All preliminaries having been completed, the mobilisation of the attackers began. At 8 o'clock on the night of the 27th May, 1920, eighteen men from my Battalion concentrated at Garryspillane cross-roads, all in possession of bicycles, and proceeded to Kilmallock direct, to join forces with other detachments from West Limerick and East Clare. Amongst these eighteen were the Scanlons and O'Briens, of Galbally; the Crowleys and Crawfords, of Ballylanders; Sean Lynch, Liam Fraher, Ned Tobin, Denny Hannigan and Denny Lacey, all of whom in later years distinguished themselves in the Active Service Units which operated in the East Limerick and South Tipperary areas. Amongst the detachment from East Clare was our present Adjutant-General—Major-General M. Brennan.

Owing to the thoroughness of the obstructions over the roads our progress towards Kilmallock was very slow. The detachment I was with arrived in the town about 10.30 p.m., and linked up with the main body to the west of Kilmallock, under the command of Sean Forde.

About thirty men, each of whom was recommended by his local commander, were now specially selected, armed with the best of the rifles, given a plentiful supply of ammunition, and detailed for the direct attack on the barracks. The remaining men, to the number of about forty, armed with shot-guns and all sorts of miniature weapons, were detailed to guard minor entrances and exits.

Our detachment, that is to say, those detailed for the direct attack, was next divided into five sections, each choosing its own leader. The unanimous choice of my section was Tim Crowiey. His home was afterwards mined and burned out, he himself being sentenced to fifteen years' penal servitude. Each section received detailed instructions concerning the various buildings surrounding the barrack, which they were to occupy and fortify. Clery's Hotel fell to our lot.

This extensive building stood directly in front of the barrack and afforded an excellent commanding position, being about twice the height of the barrack. Our Intelligence had reported the previous day that Clery's could not be entered either by front or rear so late at night, and in order to make sure of admission the following plan was adopted:

One of the I.R.A. was detailed to proceed to Kilmallock by evening train in the guise of a commercial traveller, and book a bed for the night in Clery's. This would ensure having a man of our own inside to let us in: and it also meant that he would get a pretty good knowledge of the occupants and the interior arrangements.

This simple plan worked splendidly. The instant our Section leader tapped gently at the door, our comrade inside laid down the book he was reading and opened the door.

Houses all round the barrack were by now occupied, and the work of fortifying them began. Each man barricaded the window allotted to him with whatever

material was available to his hand. Needless to say, the material available was not ideal for the purpose, and but a sorry substitute for the steel-shuttered windows opposite. But a high spirit of confidence animated us, and by 11.30 p.m. we were all at our appointed posts, with loaded rifles at the ready, waiting with what patience we could for the signal to begin the attack.

About six paces from the gable-end of the barracks, facing south-west, another building towered above it. From the roof of the building our leader was to give three flashes of a lamp, which was the signal to begin the attack. All eyes were now straining towards this point. There was no sign of life or activity from the barrack, and we seemed to have occupied the surrounding houses without arousing any suspicions.

Suddenly from the roof-top three flashes of light winked out into the night, and were instantly answered by the roar of thirty rifles. At the same moment a 56 lb. weight went crashing through the slates of the barrack roof. Two other 53 lb. weights followed in quick succession, their crashing noise passing almost unnoticed in the din of rifles and bursting bombs.

This unique method of breaking a fort was very effective, causing a large gaping hole in the roof. Into this opening our leader, from his position on the roof, hurled bottle after bottle of petrol. The bottles broke into smithereens and saturated the roof with petrol. Then our leader hurled bomb after bomb into this petrol-soaked breach. Each bomb burst with terrific force, causing considerable damage but completely failing to set the roof on fire.

Meanwhile the fight was raging fiercely all round the barrack. The large garrison had manned every loop hole, and were returning a hot fire to our attack. It looked as if we would not succeed in forcing them either to surrender or evacuate. The bombing of the petrol-soaked roof, upon which great hopes had been set, did not appear to be working out according to expectations, and unless some other means of reducing the structure of the building was brought into play it was evident that bomb and rifle fire would be unavailing.

It was under those conditions that the real genius of our leader rose to the occasion. He detailed a small party of those guarding the exits to proceed to a yard in the town where there was an American paraffin oil car. The car had arrived in the evening and put into one of the yards, the driver staying overnight in the town. It was the tank-shaped type so commonly used in distributing supplies to country traders, and contained a huge quantity of paraffin oil. This car was now brought up the street, and with considerable difficulty and danger placed in juxtaposition to the barracks. By means of a hose this supply of paraffin was now poured into the breach in the roof. For the best part of an hour, right in the centre of the battle zone, this stream of paraffin was kept playing on the roof. Then another Mills bomb hurled into the breach had the desired effect, and the roof burst into a blaze. Even after the roof had taken fire the stream of paraffin was kept playing on the roof, with the result that in a few minutes it became a roaring furnace.

The battle for possession of this stronghold of the enemy raged without intermission from midnight to 2 a.m. At that hour our leader flashed out the "Cease

fire " signal from his perch on the housetop. It was almost instantly obeyed by the attackers, and the only sound was that from the fire of the defenders, who continued to fire intermittently.

It was a weird sight, and one which the participants are never likely to forget—the smoke of burst bombs and burning roof billowing around the building, the sudden comparative quiet after the fierce noise of the conflict, the red, hungry flames shooting skyward out of the doomed building.

The garrison was called on to surrender; but the reply was, "No surrender," followed by a volley of rifle and grenade fire. Instantly the three flashes of light for the "Open fire" winked out from the housetop and the battle was again in full swing. For upwards of three more hours the building—the fire of which was increasing every moment—was subjected to a continuous attack.

During all this time the defenders, who showed remarkable courage and pertinacity, directed their main efforts against Clery's Hotel. They endeavoured to make this position untenable by a continuous attack with rifle grenades. In this they were considerably handicapped by our elevated position and the fact that the street space between the two buildings was filled with dense smoke. Owing largely to these facts, I believe, they failed to get a single one of their grenades in through any of the windows occupied by us. None the less our position was rather precarious. Grenade after grenade hit the front wall, dropped to the ground and burst with terrific force. These repeated concussions were causing considerable damage to the lower portion of the front of the hotel.

The first pale fingers of the summer dawn were now beginning to lighten the summer sky. The fight had been waged for over five hours and the entire barrack was little better than a roaring furnace. The position of the defenders was hopeless, as it was quite impossible to conceive human beings able to remain any longer in the building. Once more the "Cease fire" signal flashed out. Silence again took the place of conflict. The garrison, for the last time, were called upon to "Surrender." Their answer was "Never," followed by a few shots.

The fight then recommenced and was continued up to about a quarter to six o'clock. About that hour the entire roof fell in, amidst frantic cheering from the attackers. Flames, sparks, and clouds of smoke now shot skyward, giving a weird red tinge to the whole scene. The defenders had by this time made a dash to a small building in the yard of the barracks. This building, like the barracks, was in a state of fortification. In their flight they abandoned most of their grenades and ammunition, and the bursting of these within the burning building added to the din of the fight.

From this small building the defenders put up a stubborn resistance. They fought the fight of heroes, and, although we were engaged in a life-and-death struggle with them, we readily acknowledge the magnificent stand they made in face of an utterly hopeless situation.

The retreat of the R.I.C. led to a change of our position also. We evacuated our former posts, and got into new ones at the rear without suffering any casualties, although it was now almost daylight.

The fact that the R.I.C. had abandoned most of their reserve of ammunition, etc., in their flight from the barracks conferred no great advantage on us. We had begun our attack with a pitifully small supply of ammunition and bombs, and, after more than six hours' continuous fighting, our supplies were well nigh exhausted. Thus it was that about 7 a.m., when we had exhausted our supplies of ammunition, and were in grave danger of being trapped by heavy reinforcements, our leader was forced to sound the the "Retire." We fired a parting volley and begun our retirement.

It was during this time that poor Liam Scully met his death. Too brave and daring, he remained for a few minutes individually engaging the defenders, and was fatally wounded. For some time previously he had been my close companion in fights against the Crown forces, and a great intimacy had sprung up between us. We placed him, wounded and dying, on top of the empty arms we had fought with, in a waiting motor, and bade him a sad farewell. May the soil of his native Kerry rest lightly upon him. Ireland has bred no more fearless, loving, or faithful son than Liam Scully.

Another of our comrades—J. J. O'Brien—had a lucky escape from being blown to pieces. He had crept, with only four rounds of ammunition, as near as possible to a window, at which one of the defenders was making his last stand. He made his way under good cover, and climbed unobserved on to a small shed of corrugated iron. This shed was built against a wall about ten yards from the position of the police. The roof ascended acutely from the point where he scaled it, and, taking as many precautions as possible to prevent sliding off, he fired his four rounds through the window of the outhouse where the police were in position, and then hastily retired. He had just got clear when a grenade, thrown by the police, burst in full force, and practically tore the corrugated iron roof into ribbons. Had he a fifth round of ammunition, and delayed to fire it, it would have cost him his life.

We retired in good order across the country, leaving the barracks a smouldering ruin. Had the attack started half an hour earlier, or had we another half-dozen grenades in our possession, we could have reduced the out-building and compelled the R.I.C. to surrender, or die fighting in the open. However, we could, without exaggeration, claim that we had accomplished what we set out to do, namely, to reduce to ruins the enemy stronghold in the town of Kilmallock.

The enemy casualties officially reported next day were:—Killed, one sergeant and one constable; Wounded, six constables. It was, however, a well-known fact locally that three others were killed and burned beyond recognition in the conflagration of the barracks. Our losses were one killed—poor Liam Scully.

The R.I.C. sergeant who was responsible for inducing his men to hold out to the bitter end was promoted to the rank of District-Inspector the following week, but was shot dead in Listowel a few months later.

Savage reprisals were carried out next night, and some of the most prominent buildings in Kilmallock were reduced to ashes. Needless to say, the people who suffered these brutalities had nothing whatever to do with the attack, as sometimes happens in reprisals.

TYPES AND PROPERTIES OF WAR GASES.

By COMDT. D. STAPLETON.

THE introduction and development of the use of chemical agents in military operations has had a marked effect on the employment of troops in combat—both from the point of view of the extra equipment which the individual must of necessity carry, and of the physical disabilities which are occasioned by the continuous wearing of masks, and the weight of the extra equipment. These considerations will be associated so much with future warfare that training and endurance in the care and wearing of these appliances must become a routine in the life of the soldier. When it is so important and so necessary that training in this direction should be maintained on an active scale it is equally important that instruction in the types and properties of war gases be included in training schedules. The fear of strange potentialities lurking in unknown substances will undoubtedly undermine the morale of troops, and no matter how lightly the subject might be dealt with, even elementary instruction in the types and properties of gases helps the soldier to realise that all the mystery and horror which he has come to associate with these substances are grossly exaggerated.

The word "gas" as used in chemical warfare covers a rather wide field. It may mean a true gas, a liquid, a solid, or a cloud of minute particles of poison, e.g., arsenical dust. In fact any substance used in war, because of its poisonous effect, has come to be called "gas."

The agents used in chemical warfare are of two distinct classes, namely, persistent and non-persistent, according to their chemical and physical properties. The most important physical property of a war-gas, from the military point of view, is its persistence. This is in reality the length of time during which a liquid spread upon the ground, continues to give off an effective or poisonous concentration of vapour. The period of time thus occupied, or in other words, the degree of persistence shown by the agent greatly influences its tactical use, and from this point of view gases are accordingly classified as Persistent and Non-Persistent.

Persistent Agents.—Liquids which are slightly volatile when splashed upon the ground give off their vapours slowly. It is evident that an area so treated will remain infected for a considerable period, the length of time depending upon the prevailing temperature, winds and nature of the terrain, etc. It is not proposed in this article to enter into the details of these influences, as their study is lengthy and of a technical nature. The usual duration of activity of agents in this group ranges from one to thirty days. Mustard Gas (H.S.) is the best-known and most effective. It is highly vesicant, irritating the skin and mucous membranes, and is a powerful pulmonary irritant. It has a characteristic mustard-like odour which, however, is neither quickly detected nor offensive. In an area shelled with this gas, the odour once detected is readily recognised at first, but the sense of smell soon becomes dulled and finally disappears. This is of tremendous importance, as troops are likely to underestimate the danger on account of the absence

of a strong odour, and will pass over the area carrying the liquid on their boots and contaminating dug-outs and shelters where it becomes more active in the warmer atmosphere. A concentration as low as one part in three millions of air will produce casualties in a few hours, whilst a concentration of one in one million will cause severe inflammation of the eyes in 15 to 20 minutes. The great value of mustard gas lies in its persistency and in the fact that while the mask protects the face and respiratory organs mustard gas even in pin-point drops will penetrate the clothing, blistering and causing casualties. Food contaminated by it is unfit for consumption.

Lewisite.—An American production with properties similar in every way to mustard gas.

Ethylchloroacetate (S.K.).—This was the principal tear-gas employed by the British during the latter stages of the world war. It is a dark brown oily liquid, with a sweetish smell like pear drops. It is highly persistent, often hanging around an area for a month and more. It is effective as a lachrymator in concentrations as low as 1 in 20 millions, producing an atmosphere which is intolerable unless protection is afforded by a mask.

Brom-benzyl-cyanide (C.A.) is another powerful tear-gas which is effective in such low concentrations as 1 in 30 millions. It is, however, a solid, and as such is rather difficult to vaporise and is not suitable for use in present-day projectiles. Its chief defect is that it attacks all common metals except lead; thus shells containing it must be lined with glass, porcelain, or lead. It is, however, within the bounds of possibility that science will discover a method of vaporising these and similar highly persistent and powerful harassing agents and render them available for use in ordinary projectiles.

Non-persistent Agents are those which are gases at ordinary temperatures, and which when released from their containers are carried along by air currents or wind. Such agents might persist for some time in dense woods, etc., but in the open they are quickly dissipated. The most important of the non-persistent agents are:—

Phosgene (C.G.).—This is a gas at all ordinary temperatures. It takes first place among the non-persistent agents because of its highly poisonous effect even in low concentrations. It is a powerful lung irritant, and heavy concentrations will always produce death unless masks are adjusted within a few seconds of detection. The odour of Phosgene is very characteristic and may be described as that of musty hay. An extremely low concentration in the air produces a peculiar alteration in the taste of tobacco smoke. This reaction is very pronounced and forms a convenient method of detection even of very minute quantities of Phosgene.

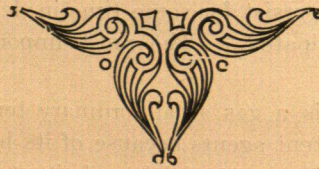
Diphosgene is a substance very similar to phosgene in properties and smell. It has a greater persistency than phosgene, and on that account is suitable for use in projectiles.

Chloropicrin is a substance which, in addition to being a lung irritant, is also a lachrymator. In the latter respect, however, it requires a higher concentration than the true lachrymators, its minimum effective concentration being about 1 in

200,000. Its action in the human body is cumulative. Continued breathing of low concentrations, which would be harmless in the case of Phosgene; give rise to serious poisonous symptoms in the case of Chloropicrin.

A few only of the principal substances at present being used in extremely safe and minute quantities for training purposes have been dealt with in this article. The possibilities of chemical warfare are boundless. The number of possible chemical combinations is enormous, and although only a small proportion of these may have properties suitable for use in war, yet this number is sufficient to occupy many lifetimes of research. Improved methods of releasing gas may be expected in the future. New weapons, or new shells may be invented, or shells may be partly filled with gas and partly with shrapnel.

It shall not be forgotten that the perfection of counter-measures progresses almost *pari passu* with the discovery of effective gases, and that in so far as gas warfare is concerned in future the battle is not to the strong but to the side that is swift in the race for antidotes.



THE U.S. GENERAL SERVICE SCHOOLS

THE TRAINING GROUND OF THE AMERICAN STAFF OFFICER.

By MAJOR-GENERAL H. MACNEILL, General Staff.

OF the many urgent problems connected with National Defence receiving consideration at the moment, perhaps none are calculated to arouse such keen interest among the general body of AN T-ÓGLACH readers as those connected with the future military education of our Officer Corps.

In the solution of these, as of other problems, we must be guided by the experience of older armies, and consider how the results of such experience can best be adapted to meet our own particular requirements. For this reason an attempt is made in the following pages to describe, briefly, the methods and machinery devised to solve this problem—or rather that aspect of it which deals with the training of higher commanders and staff officers in the United States Army, as observed by one who had the honour to be associated with the Irish Military Mission to the U.S.A., 1926-27.

The training of the individual officer as a higher commander or staff officer represents, of course, the culminating point in the military education of the average officer. As a preliminary, therefore, to the consideration of this phase of military education, we must examine the various progressive steps or stages which lead up to this culminating point.

The United States system of military education provides for the following. The average officer commences his military education at the U.S. Military Academy, Westpoint, which he enters between the ages of seventeen and twenty-two. This famous Military Academy is, of course, the basis of the whole system of training in the United States Service, and as such is worthy of much more than passing mention, but as this article proposes to deal with the training of higher commanders and staff officers, the temptation to be led aside into an examination of the organisation and methods of the Military Academy must be resisted. Suffice it to say that on successfully completing a four years Course at the Academy the cadet is granted a Commission in one of the Arms of the Service, *e.g.*, the Infantry, Cavalry, etc., and posted to a Regiment or similar unit. At this stage he must still be regarded as an embryo officer, although in possession of his U.S. Commission. Westpoint does not aim at turning out trained officers; it simply lays the foundations of military education proper.

The young officer spends some time with his Regiment as a second Lieutenant, and the development of his military training continues, both through practical service with troops, and through the medium of Post Schools and similar institutions.

In due course he is seconded from duty with his Regiment for a course of training—termed the Basic Course—at the Service School of his Arm, such as the Infantry School, the Cavalry School, and so on. This Course normally extends over a period of nine months, and is designed to train him as a Company

Commander or its equivalent in the Special Branches. Major Dunne has given a very complete description of one of these Service Schools, the Infantry School, in the April-June issue of AN T-ÓGLACH.

This Basic Course completed, the officer returns to normal duty again, and in due course is promoted to the rank of Captain. The time has now arrived when he is required to return to his Service School for a further course of training, the Advanced Course. This is designed to train him to handle all units of his own Arm up to the highest, such as the Infantry Brigade, the Engineer Regiment, etc.

Having completed this further Course the officer would normally return to troop or other duty until he has received, or is due to receive, his Majority, when he enters upon the next phase of his military education—his training as a higher commander and staff officer. He is detailed for this training to the Command and General Staff School at the U.S. General Service Schools, Fort Leavenworth, Kansas, which will be described in detail later.

The final stage of his military training is provided by the War College, Washington, which conducts what might be described as a Post-Graduate Course in the more advanced aspects of modern warfare with particular reference to the War Plans of the United States. The War College is in effect the University of the Army, and in addition to training potential Army Commanders and senior Staff Officers, provides the U.S. Government with a highly organised research laboratory for all matters connected with National Defence.

This, briefly, sums up the U.S. system of military training for officers, as it exists in theory at least, for it should be realised that (in its present highly developed state) the scheme is of comparatively recent growth, and it has not been found possible yet to work it out in practice quite as elaborately as it is outlined above. For example, as a natural result of the abnormal expansion of the U.S. Army during and subsequent to the World War, very many officers are not graduates of the Military Academy at Westpoint, having entered the Army direct from civil life, and many of the officers attending the 1926-27 Class at the General Service Schools had come direct from the Advanced Courses at the Service Schools without any intervening period of troop duty, whilst others had never attended any Service Schools. Such departures from the general plan are, of course, inevitable in any new system.

The keynote of the whole scheme is worthy of special emphasis in its application to an Army which must be prepared for rapid expansion in time of emergency. It can be seen that it is based on *the training of officers for far higher responsibilities than those pertaining to their actual ranks at the time the instruction is imparted.* Thus the second Lieutenant is trained as a Captain in the Basic Course at his Service School, the Captain is trained as a Major or Colonel through the medium of Advanced Courses at the same Schools, and the Majors and Colonels in their turn are trained for the responsibilities of higher command at the General Service Schools and War College. This is an interesting development of the old German system under which officers due for promotion had to pass examinations for at least the next highest rank. This system has now been adopted in some form or other by practically every modern Army.

It is also of interest to note the proportion of his military career that is spent by the average American Officer in intensive training at various Army Schools. This might be summarised as follows:—

Military Academy	...	...	...	...	4 years.
Service Schools, Basic Course	...	...	...	1 year.	
" " Advanced Course	...	...	...	1 year.	
General Service Schools	...	...	...	2 years.	
War College	...	...	...	1 year.	

The above might be regarded as the minimum, for in addition to these Courses an officer may be detailed to attend the Service Schools of other Arms ; he may take various Specialist Courses ; he may be required to take Courses at civil educational establishments, such as the Boston Institute of Technology ; he may be detailed to foreign Military Schools, and in addition he can always take Correspondence Courses conducted by his own Army Schools.

This general outline of the United States system of military education will help us to realise how the training of higher commanders and staff officers fits in with the general scheme. The term "higher commanders and staff officers" is used here advisedly, for it is laid down in the U.S. doctrines that the basic training of commanders and staff officers must be identical.

The training of potential higher commanders and staff officers of the United States Army is conducted at the General Service Schools. Fort Leavenworth, Kansas, the home of these schools, is one of the most historic posts in the occupation of the U.S. Army, and reflects in its history the story of the gradual development of the United States themselves. Founded by Colonel Henry Leavenworth of the Third United States Infantry in 1827, it is located on the west bank of the Missouri River about thirty miles north of Kansas City. Originally organised as a frontier post on the then western borders of the United States, it was for many years the last outpost of civilisation in the Middle West from which the great trading caravans used to set out on their perilous journeys to Mexico and the Far West. Gradually the tide of progress surged further, and ever further west, and Fort Leavenworth found itself a normal peace-time garrison. Portion of the old boundary wall built to repel Indian attacks is all that remains of the one time frontier post which to-day is situated almost in the exact geographical centre of that vast territory known as the United States of America.

The history of the Fort as a Military School dates from 1882 when what was described as "The School of Application for Cavalry and Infantry" was founded. From these early days Fort Leavenworth was the home of Army Schools of one type or another, practically without interruption until 1920, when the General Service Schools, in their present form, were organised. For those who appreciate such matters the excellent "History of Fort Leavenworth," by Major Enid Hunt, published in commemoration of the Centenary of the old post last year, will be found of engrossing interest. Apart from the purely historical aspects the details of the early organisation and gradual development of Army Schools will be of great value to any officers concerned in this aspect of our own military problems.

The modern post is situated on a reservation of approximately 5,800 acres, and although this is somewhat restricted for outdoor training, the surrounding prairie lands provide ample space for the most extensive field exercises. In its modern form the Fort was designed to accommodate a complete garrison of all arms, but most of the old barracks have now been converted into Officers' quarters, with the result that over 200 students and approximately 100 staff and instructional officers, with their families, can be comfortably accommodated in houses or spacious apartments. The post is a complete, self-contained little community, maintaining its own General Stores (known as Post Exchanges), Officers' and Mens' Clubs, Theatre, an extensive farm from which fresh farm produce can be purchased, and generally everything necessary to make life comfortable for its inhabitants. A fine Academic Building, comprising comfortable, well-equipped Lecture and Conference Halls, Problem Rooms, Students' Common Rooms, Library, and Instructional and Staff Offices, has been erected in a central position on the post.

Unlike the Infantry School, as described in the last issue of AN T-ÖGLACH, no Regular Line troops are stationed at the Schools, the administrative details being handled by what is known as the "G. SS. (White) Detachment," labour, stable, and such duties being catered for by a similar "Coloured" Detachment of negro troops. The Schools also maintain a fine band, and a well-equipped modern Fire Department. These troops, with a detachment of the Army Air Corps, Quartermaster Corps, and the staff of the U.S. Disciplinary Barracks, which is also located on the reservation, make up the present day garrison of Fort Leavenworth.

The Staff comprises a Commandant, holding the rank of Brigadier-General, an Assistant-Commandant with the rank of Colonel, an Executive Officer, an Adjutant, Quartermaster, and the usual administrative personnel. The Faculty is divided into six Sections, as follows: the Command Section, dealing with instruction in major tactics and strategy; the G1-G4 Section, responsible for instruction in matters pertaining to Personnel, Transport, Supply, and Logistical instruction generally; the G2 Section, which deals with Military History and Military Intelligence; the G3 Section, which is mainly concerned with General Training, Organisation, Troop Leading, Orders, Field Engineering, and the co-ordination of instruction relating to the Separate Branches; the Correspondence Course Section, and the Publication Section.

In addition to these six main Sections, there are twelve Sub-Sections dealing with specialist or technical instruction, viz.: Infantry, Cavalry, Artillery, Engineer, Signal, Air Service, Chemical Warfare, Adjutant-General, Judge-Advocate, Medical, Ordnance, and Quartermaster Corps Sub-Sections.

The Schools maintain their own Printing Plant, Topographical Section, etc., and turn out all their own texts, maps, and general scholastic requirements.

The General Service Schools, as such, actually comprise two distinct Schools; the Command and General Staff School, and the Command and General Staff Correspondence School, each of which has its own Director, but utilises the services of the common pool of instructors. Apart from staff and administrative officers, who assist in instruction as required, the Instructional Staff comprises over 50 officers,

all of whom hold Field Rank, a very essential measure in a School such as this which is responsible for the training of senior officers.

The Command and General Staff School conducts two courses in each academic term, the Command and General Staff Course for Regular Army Officers, and the Command and General Staff Special Course for National Guard (Militia) and Reserve Officers. Originally the Regular Course covered a period of two years, but as a result of the abnormal number of Field Officers due for higher command and staff training, the course was temporarily reduced to one year. The two-year course has now been re-introduced, thus bringing the School into line with similar institutions in other countries, such as the French Ecole de Guerre and the British Staff College.

As previously stated the Command and General Staff Course is designed to train potential Division and Corps Commanders and Staff Officers, and covers instruction "in the combined use of all arms and branches in the division and corps, in the functions of commanders of divisions, of corps, and of corps areas, and in the functions of general staff officers of divisions, of corps, and of corps areas." The Class of 1926-27 comprised 197 U.S. Army Officers, 3 U.S. Marine Corps Officers, and 2 Irish Army Officers, the only foreigners attending the Schools that year.

The extensive nature of the curriculum may be judged from the following summary, which is taken from the Syllabus for 1926-27 :—

- Combat Orders,
- Troop Leading,
- Command, Staff, and Logistics,
- Field Engineering,
- Leadership,
- Military Law,
- Methods of Training,
- Military History,
- Military Intelligence,
- Military Organisation,
- Strategy,
- Tactical Principles,

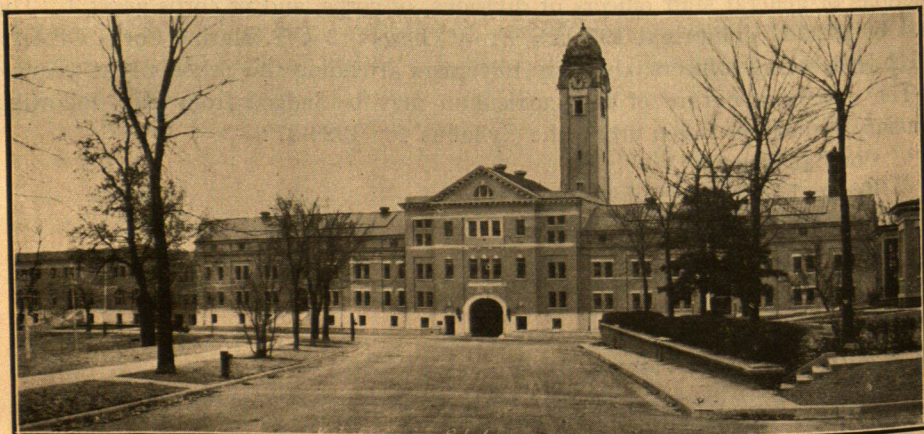
Tactics and Technique of the Separate Branches :

- Infantry,
- Artillery,
- Cavalry,
- Air Service,
- Signal Troops,
- Engineers,
- Chemical Warfare,
- Medical Troops,
- Tanks,
- Coast and Harbour Defences.

Officers attending this Course are expected to have a knowledge of the tactics and organisation of all units of their own Arms, and of small general units up to

the Mixed Brigade, or as it is termed in the United States Service, the Reinforced Brigade. This preliminary training is, of course, the function of the various Service Schools. However, to assist officers to obtain the greatest possible advantage from this course, the first few weeks are devoted to a brief review of the tactics and technique of such units. It is worthy of note as an index to the excellence of the teaching methods, that although this review is purely in the nature of a brief refresher for the average American officer, it had to take the place of both the Basic and Advanced Courses for the two Irish Officers attending the 1926-27 Course, and in spite of its necessarily condensed nature neither found any great difficulty in following the progressive development of the complete course later on.

There are a few outstanding points which must strike the student officer attending these schools. The first is the very highly progressive nature of the whole course, the steady systematic advance one finds oneself making almost unconsciously. You commence in September to handle one little Infantry Battalion with diffidence, feeling that the great Captains of history never had such a task; and



[General Service Schools' Photo.]

The Academic Building, U.S. General Service Schools, Fort Leavenworth, Kansas.

by the following June you find yourself commanding complete Army Corps with the confidence which is only born with experience—although in this case the later is purely theoretical. This is only possible by reason of the steady progressive plan in the sequence of studies in the major subjects. Having completed the brief review of the minor tactics covered above, one proceeds to study the technique of the various components which make up the Infantry Division, taking each one separately, prior to the study of the operations and handling of the Division as a whole. The Army Corps and higher units are handled in the same manner, the separate components are covered first, and then comes the study of the complete unit.

The universal principle that the most important duty of a Regular Officer in peace-time is the training for war of the officers and men under his command, is stressed at these schools, particularly with regard to the training of the non-regular components of the United States Army, *e.g.*, the National Guard and Organised

Reserves. At Benning, and other Service Schools, the Regular Officer is trained in the methods of instruction as they affect the smaller units with which he is likely to be called upon to serve. The next step is taken at Leavenworth, where he studies these methods as they apply to the training of larger units. He learns how to prepare and conduct Map Problems, War Games, Field Exercises, and Manoeuvres for Divisions and similar units, he makes a special study of the limitations of training as they affect non-regular troops, and is shown how to prepare his training programmes to overcome these limitations. The results of this are apparent in the remarkably high standard of efficiency that prevails among the larger National Guard and Reserve formations throughout the United States.

The various subjects are initially presented to the class by means of lectures covering general principles. Clear definite study assignments covering the practical application of these principles are then issued and have to be discussed in conference on a question and answer basis between instructor and student. If possible the student is next afforded an opportunity to try out the knowledge thus gained on a Map Manoeuvre (War Game) or Tactical Ride, where mistakes are pointed out and rectified by instructors, and finally comes the marked Map Problem or Terrain Exercise, where the student is required to put his knowledge to a practical test, the results of which are graded, and commented upon by the School.

The essentially practical nature of the instruction is truly remarkable, where so much of the work must of necessity be purely theoretical. It is laid down that the applicatory method must form the basis of all instruction, and this policy is consistently followed out. It is not considered sufficient that the student should merely learn principles; he must prove that he can apply these principles to concrete situations. As far as possible all principles are illustrated by examples from military history. The problems, exercises, and so on, really "live" in the mind of the student. One does not think in terms of imaginary units; one handles definite forces, designated not merely as "A Regiment" or "A Division," but by name and number as "3rd Infantry," the "1st Division," commanded by a definite commander—generally by the inimical "Major-General A.," whose fame, as some of our readers can appreciate, has recently spread to this side of the Atlantic. This may seem a small point, but it may make all the difference between success and failure in instruction, if the student can really work himself into his situation, instead of regarding it as a mere tedious book problem.

At Fort Leavenworth practical instructional methods have been brought to a fine art; every possible detail that may help to maintain interest is developed to the highest possible pitch. Charts, graphs, diagrams, models, the cinema, nothing is too big or too small to receive consideration if it helps to make instruction more practical or more interesting. The success of the method at Fort Leavenworth is remarkable.

As far as the student is concerned the ordinary day's work commences with his first lecture at 8.30 a.m. The mornings are normally devoted to lectures and conferences, the afternoons to map problems, map manoeuvres, or outdoor exercises. There is generally a break of an hour for luncheon, and instruction usually terminates at 5 p.m. After dinner one settles down to the necessary

preparation for the next day's work, which may take the form of individual or of joint study with a friend or friends. The School authorities hold that this need not occupy more than two hours and a half nightly. Personally I doubt if many men can get through their night's study in this time.

From the above it may be deduced that Leavenworth is no place for the slacker or weakling. On the other hand there is no reason why the ordinary officer of average intelligence, who is really interested in his profession, should not get a lot of pleasure as well as value out of this course. It demands hard, strenuous work, keen, unremitting application to duty, and—although this may seem irrelevant—the possession of a well developed sense of humour. No matter how hard working and conscientious, or even brilliant, a man may be, he must be prepared for rebuffs and setbacks here as in the field; he must learn to take them with a stiff upper lip, and come up again with a smile. If he cannot do this it spells disaster.

The General Service Schools are in effect the cross-roads of his career for the average U.S. Officer. Unless he is recommended upon graduation for General Staff employment his name cannot be included in the General Staff Eligible List, the portal of the "plums" of the Service. Therefore, this Course must prove a more or less serious mental strain to the student officer, varying according to the mentality of the individual. The authorities recognise this clearly, and for their part do all that is possible to make it easier and more pleasant for him. In fact it would seem that they endeavour to do everything for him except his actual study. He feels this immediately upon arrival at the Post where everything is in readiness for his reception, a car to meet him at the station, if he comes by rail, his quarters cleaned up ready for occupation, his baggage delivered and stored away, so that he feels at home at once.

Recreations and amusements are organised to cater for all possible tastes, including Golf, Tennis, Polo, Handball, Riding, Swimming, Skating in winter, and so on almost without end. Comfortable Officers' Club and Golf Club Houses are maintained, the Hop Association organizes highly enjoyable weekly dances throughout the season; a very efficient Dramatic Club stages frequent plays in the Post Theatre, while frequent changes of programme in the Post Cinema are provided for the "movie fans." All this is reflected in the high state of morale maintained among the student body.

The above facilities are also extended to the families of student officers, obviously on the grounds that a man cannot do himself justice in his work if his family is not content. The ladies and children are as well catered for as their men folk, so much so that one charming lady who professed to believe in re-incarnation brought fame upon herself by stating that when she returned to earth it would be "as a student-officer's wife at Fort Leavenworth." To us, fresh from our vivid recollections of civil financial control, some of the privileges extended to officers' families, such as the generous use of Army horses for ladies' and childrens' riding classes, or the well organised gymnastic classes under Army instructors, came as a revelation. However, there is no doubt that the Army was well repaid for the trouble, and outlay involved. The American Service woman takes her responsibilities seriously; she sets herself out to be a real help-mate and comrade to her husband,

particularly when he is "going through it" as at Leavenworth; her real pride in and affection for the Service encourages her to ensure that he gives of his best to it.

In conclusion a tribute should be paid to the unfailing courtesy and good comradeship that was extended to us during our stay at these famous Schools. This could, perhaps, best be summed up in the words of the genial Commandant, Brigadier-General Edward L. King, when we first paid our respects to him. He stated on that occasion that he believed that "the best host is he who forgets his guests are guests, and treats them as part of the family." Right well did he and his officers live up to this; we always felt that we were not regarded as foreigners, by our American comrades, we were encouraged to share their pleasures, and troubles, we worked and played with them as "part of the family." Never was it borne in upon us so forcibly that, no matter what uniform a man wears the military profession is one big brotherhood the wide world over.



OUR UNIFORM.

BY CAPTAIN DENIS J. LAWLOR.

A SOLDIER is an international symbol of his country. One frequently sees France depicted as a poilu, Britain as a Tommy, Japan as a small and tidy soldier, Italy as a Fascist soldier, and other nations similarly portrayed as soldiers. Recently one has seen Irish soldiers drawn as typifying the nation, and one is struck by the universal habit of regarding the soldier as a symbol of his country. Since the nation is often judged by her army, let us who are of it examine one aspect of the army's needs, a uniform that is national, smart and serviceable, which shall be to the world a witness of the progress and efficiency of our nation.

Prior to the World War many armies used three uniforms—dress, fatigue, and active service. During the War, and, indeed, shortly before it in some instances, the idea of one pattern uniform for all arms came rapidly into favour, and has now been almost universally adopted. As is the case in our service, where only one uniform is used, it should be designed solely for active service—smart parade appearance, historical associations, and other considerations, ranking only as of secondary importance. At the time our uniform was chosen, circumstances did not permit of the selection receiving the consideration which its importance warranted. Now that we have the opportunity our first concern must be that our troops under active service conditions will find themselves in a comfortable, efficient, and serviceable kit adapted to the conditions under which they may be called upon to fight.

It is proposed in this article to examine our present uniform piece by piece, and see where changes are desirable, and may be made, and to suggest alternatives and innovations. Many uniforms, ideal on paper, will not be at all desirable on service. If our uniform can undergo a thorough criticism and examination without any case for alteration being proved, we shall have at least satisfied ourselves of its efficiency; if, on the contrary, changes are considered desirable, a step will have been made in the right direction.

The overwhelming requirement of a soldier's uniform is comfort, but there are other considerations which must not be lost sight of. It should be smart in appearance, and so conducive to discipline, esprit de corps, morale, and popular esteem, and an incentive to recruiting. It should be light, and yet provide the wearer with warmth. It must be such material as will permit of ventilation. It must be of such a colour as to be of the greatest tactical advantage and protection. It should preserve association as far as possible with the military history of the past, and in our own case remind us of the glorious traditions we have to uphold.

The colour of our uniform is green. This colour was not selected as being the most suitable for campaigning; rather it may be said that it selected itself. While it is only natural that an army sprung directly from the patriotism of the nation should be clothed in the people's colour, it is only foolish to keep them in

that colour if it renders them more exposed in actual warfare. Is the colour suitable for general service? Experience tells us that it is not the ideal active service colour. The writer's personal experience of it is that it shows out as a dark or black outline against the green countryside. Since the Defence Forces are primarily intended for the protection of An Saorstát, it must be our endeavour to make our uniform conform to the natural colour scheme of the Saorstát. Our present colour does not afford troops the tactical protection which another colour would. British troops are clothed in khaki, and this colour is eminently suited to their normal active service conditions in tropical climates where the atmosphere is dry. The moisture content of our atmosphere is comparatively heavy, and this must greatly affect the selection of a suitable colour. The green now in use is certainly not the colour. Apart from the expense necessary to pursue the tests which would have to be made to select the most suitable colour, be it a blue, grey green, or brown, a change need not entail any extra cost to public funds. A period can be laid down during which the two colours might be worn whilst existing stocks are being used up. As the life of a tunic is six months, and that of a breeches eight, this period need not be a long one. It is understood that sufficient stocks of great coats are held to meet our requirements for sometime to come, but the fact that it would not be economic to change from our present great coat need not delay the change of colour of the remainder of the uniform were such a change decided on. Great coats of a different colour to the rest of the uniform are worn in other armies. It is not intended to infer that we can progress only by slavish imitation of our contemporaries. Our efforts must be directed to secure the best in all things whether by adopting or modifying the schemes of experienced foreign armies or by innovations to military practice. Experiments are sometimes expensive, but they are essential, and in their absence the highest standard of efficiency cannot be attained. Military research on this subject is of immediate importance.

In order to preserve a sequence, the uniform will be considered from head to foot. Our forage cap is of the popular type used by Americans, Italians, Germans, British, Russian, and others, and does not seem to require alteration. The peak could be made narrower and deeper. The fixing of the Badge on the top of the cap-band would improve the appearance—the badge itself is not a large one, and is often half covered by the chin strap. Wires are now supplied in the caps, but, unfortunately, there seems to be a difference of opinion as to the size of the crown between the makers of the wires and those of the cap. Again, a slight deepening of the band—a better front spring, and the fitting of a proper-sized wire into the cap by the manufacturers, would probably prevent the cap from sagging around the crown of the head with unsightly results. In many services, some commercial, a different material to the rest of the uniform is used for the caps, and such caps retain their appearance and shape after considerable use. Why should not this obtain in the case of the soldiers? Presumably other uniform services find it economic to provide a cap of different material. The buckram used as stiffening material is not in fact effective. A large number of caps lose their shape shortly after issue, and the average cap worn by our troops looks badly made.

A steel helmet of the German pattern has been approved after exhaustive tests, and we are not concerned with any suggestions to alter the pattern. In the future this helmet will be frequently worn by our troops. How does it fit and feel in use? From experience in field exercises it can be said that it is light and apparently affords a maximum of protection, but it is very difficult to wear. In practice the pads and the leather banding holding them have a tendency to work loose from the copper rivets designed to hold them in position. As a consequence the helmet slips easily from one side of the head to the other, and sometimes entirely off. The leather chin-strap is sufficiently broad, and would be quite comfortable but for the fact that the posts on which the strap-swivels engage are made of some soft white metal, and the retaining flanges on the post are quickly worn down. Once this has occurred the swivel only stays in position until a jolt sets the swivel free, when it and the strap fall down across the face. The helmet must then be taken off, and an attempt made to adjust the strap. Repetitions of such effort can be very annoying to a soldier on service.

The tunic comes next for consideration. Its collar has often been discussed. Only too frequently an officer notices men's collars sagging round their necks. Sometimes the Battalion tailor is requested to right matters, but not always with desirable results. The fact is that the collar is frequently badly fitted to the tunic, which is often cut too low in the neck. A sufficiency of Army tailors to attend to the matter seems impossible, and the remedy seems to be in both a better-made tunic, and in stocking a larger number of sizes. The habit by soldiers of wearing handkerchiefs inside their tunic collars is eloquent testimony to the degree of discomfort experienced. Creases generally appear in the collar after it has been a short time in use, and it is probable that a better quality of stiffening material would help to correct this fault. There may be objections to this, but certainly the fitting of an inexpensive clasp, such as is used in officers' tunics instead of the double hook-and-eye, would help to keep the collar upright and in position. The present collar must always stand fairly high on the neck, and unless lined with suitable material cause a certain amount of irritation. The inside of the collar accumulates grease and sweat from constant friction with the skin. A system might be devised of changeable and washable linings fitted by means of studs or some such device, but this would only be of practical value in peace, if even then.

An alternative to our present collar, without change of pattern, would be its manufacture in washable cotton material. A different shade or colour might be necessary with this change, but that should not be an obstacle. In fact it might have a smartening effect on the uniform. The difficulty of keeping this type of collar stiff would be a disadvantage. It might be overcome by having the collar made double, and thereby allowing the insertion of a removeable stiffening band of leather, buckram, or other material. Some experiments in this direction would seem worth while.

The Irish Volunteer of 1916 wore an open collar. French, Australian, American and British troops do likewise to-day, and should it be found impossible to make

the required improvements without alteration of our present design, a reversion to the open collar would be in keeping with tradition, and with foreign military experience.

While the collar is under discussion a word or two on the badges will not be amiss. At present our soldiers keep all their regimental badges polished. The badges in use are all in relief, and the infantry badges in particular have weak projections—the muzzles of the rifles. Our badges do not appear to have been made or designed to withstand constant polishing. After a while it makes them flat and smooth, like an old penny, with only suggestions as to what the original design was. The tops of the rifles on the infantry badge frequently break off, and the badge becomes unsightly. Heavily cast badges in as hard an alloy as possible would overcome this defect. Were the badges cut out instead of in relief, the results now achieved by the too persistent polisher would not occur. Some of the badges would be better if cast in a slightly larger mould—notably the infantry badge. Our badges are by no means large. Some other armies wear considerably larger ones. Let us not forget that a soldier's regimental badge is the emblem of his unit in which his military pride is centred.

The tunic itself is made of a serviceable serge, which on the whole wears well and retains its colour. Its design is similar to that used by many other armies, and, generally speaking, it serves its purpose well. It has been suggested that possibly soldiers tunics would be improved by being made of washable material. There would undoubtedly be advantages in its adoption, but what of the disadvantages? Arrangements (impracticable on active service) would be necessary for washing and airing, and repairs incidental to these operations. The tunic now in use does not become so dirty as to require washing within its regulation life-time. In tropical climates washable materials might be essential. They are used by French African troops, but since our service conditions are likely to be determined by the geographical limitations of An Saorstát, this consideration has no value. Washable materials are usually made of cotton, and do not retain heat well; a warmer cloth, such as is in use, is more desirable in this climate. The shirt type of jacket is worn by the United States troops as a field uniform. The Australians wear a tunic similar in design to the civilian sports coat. Both the types mentioned seem to give more freedom of action than our own, though it is significant that the great and more experienced European armies have retained a closer-fitting jacket. With the adoption of a "Sports" tunic made full over the shoulders, and with an insewn belt, it would certainly be necessary to introduce an open collar. Some Australian troops wear buttoned cuffs, but this innovation would have no justification in Ireland. On service the replacing of a lost button or a damaged hook or clasp might be an impossibility; a loose-flapping cuff would be an annoyance and a hindrance to a fighting man.

On a close inspection of any body of troops, except the Military Police Corps, a number of jackets will be found to be ill fitting or badly made. This is not as it should be, and whether changes in style are made or not, the manufacturers should be able to remedy this shortcoming. I have heard soldiers state that the tunic is made too full between the top pockets and the shoulders.

At present breeches are worn by all ranks, except in fatigue dress, and certainly while boots and leggings are regulation no other nether garment seems possible. At all times breeches are difficult clothes to make, and while it is not suggested that tailor-made clothes should be supplied, there should certainly be an improvement in the making. A large proportion of the breeches worn fit badly, and this is not conducive to good marching. Possibly the clothing of soldiers in ill-fitting tunics and breeches may be due, in part, to those immediately responsible for their welfare, not ensuring that they are supplied with the correct sizes at the time of issue. The proper clothing of a soldier should be one of the principal concerns of his officer. It affects the soldier's efficiency in every sphere of his activities. The stage is past when our troops had to be content with what clothing was available. Now that arrangements exist for the supply of clothing in different sizes as required, the responsibility for proper clothing of men devolves on the unit officer concerned. The acceptance of badly fitting clothes because at the moment proper sizes are not available would not reflect credit on any officer supposed to be interested in the well-being of his men.

Generally speaking, breeches are made of special material or cord. An Army may profitably copy civilians in some things, and this would seem to be one of them. An advance has been made by using a hard cord-like cloth in the making of the breeches. It seems, however, that the material is too hard for proper making. It might be economical to experiment still further, and introduce a proper breeches cord. If a really satisfactory article were issued it is probable that the extra cost involved would be offset by the better wear, and the consequent lengthening of the regulation life of the article.

On questioning a number of soldiers recently I learned that the breeches generally catch, and are tight around the knee. At the same time it is impossible to lace the ends tightly below the knee as they are made too full there. This is a detail worth a little attention as it injuriously affects a soldier's marching capabilities.

There can be no doubt that the quality of the boots and leggings at present supplied is of the best. I have heard many soldiers state that they proved very satisfactory under all conditions. For purposes of comparison alternatives are short top-boots or puttees, such as are worn by other armies. The question is would either of these meet our needs better than our present equipment. Generally speaking other military authorities have only adopted their distinctive equipment for sound reasons. A discussion of the pros and cons of this subject on hygienic lines would be very welcome from an officer of the A.M.S. Leggings have definite advantages over puttees in resistance to inclement weather, and in being quickly removable. They will not become sodden from marching in rain. By proper fitting any tendency leggings have to catch the heel when walking can be overcome. Further, they are neat, and not liable to become loose and straggling as is the case with an improperly adjusted puttee. If short top-boots were adopted, breeches must of necessity be abandoned, and slacks or rather full trousers introduced. The ends of these would have to be stuffed into the tops of the boots. Whether this would be comfortable footgear to march in is questionable. It

would give greater freedom to the leg. The tendency to restrict the free action of the calf muscles is a drawback to the use of leggings. Here puttees seem to have an advantage as the "give" in the cloth and the flexibility of the winding make for ease. If cyclists corps are to be established, it is probable that for the latter reason puttees would be found the most suitable.

While we are discussing the General Service Uniform we must consider the web equipment. At present it seems the only type possible. We have tried leather and found it wanting. On the whole web wears well, though a large number of the left cartridge carriers become frayed and worn because of constant friction with the mechanism of the rifle while sloping arms. The British Army recently altered the manner of executing the Slope by keeping the rifle clear of the body in order to prevent this wear.

Boot blacking, ink, Maypole soap, and probably concoctions of unknown ingredients, are all used in the cleaning of web with various results in appearance. Probably blacking gives the best results, but if a selection of the cleaning materials were made, and insisted on, it would make for uniformity on parade.

So far our concern has been with the infantry soldier's uniform. We now turn to the Corps and Services. Most of their personnel is employed on specialised work, and consequently their needs will not be identical with those of the soldier of the line. Our mounted services comprise the Artillery Corps and the Horse Transport section of the A.T.C. Except as regards their breeches and leggings these units do not appear to require special provision. Though only a detail, it is incongruous to see an artilleryman wearing a bandolier and belt supports. Their special needs seem to be met by the provision of leather laced leggings. It is noticeable that the strappings vary very much in colour. Brown, green, yellow and white are all worn. Would it be possible to standardize one colour for all, or better still to make a distinction and have the A.C. wear white, and the A.T.C. yellow, or such other colours as might be approved?

In the case of the A.A.C., where a large percentage of the personnel are mechanics, fitters, etc., employed in workshops and around hangars, would not a patent-leather peak be an improvement to the cap? It would be easily cleaned, and where mens hands must be constantly oily and dirty, the peak of the cap is liable to suffer. A similar change might also be desirable in the motor transport section of the A.T.C. While the A.A.C. are supplied with rifles and web equipment, their function is to fight the enemy in the air and not on foot. Their only use for rifles will be the protection of their machines, hangars and depots. Would not their equipment with a leather belt and ammunition pouche be as efficient, and more suitable, as well as being less costly? The non-commissioned personnel will certainly not carry web equipment while flying, and at all other times they will be at depots or, if on the move, be accompanied by motor transport.

The A.C.C. is another corps where a change in headgear seems desirable. On service the men will be generally in the interior of armoured cars or tanks, and would be better suited with a lighter covering than our general service cap. The beret is worn by some French troops, and a similar headgear has recently been

adopted in the Spanish Army, and is at present worn by the British Tank Corps. There are also the German peakless forage cap, the Civic Guard cycling cap, the French kepi, and the type of cap worn by some of the Balkan armies to serve as models. For the reason that the beret resembles the "Black and Tans" Tam-o'-shanter, it is not desirable. It is possible that a light peaked cap, such as is worn by many continental workmen, might be as suitable as any. In regard to web equipment, much the same remark should apply to this corps as to the A.A.C. It also seems that a change in the tunic worn by this corps might be advisable. The interiors of whippets and tanks are close and stuffy. Would not a low necked tunic with a single open collar be more comfortable and efficient?

The standard pattern uniform seems to meet the requirements of the A.A.C., A.C.E., A.S.C., A.C.C., and the A.M.S., but it may be possible that officers of these Corps would have other ideas on the subject.

I have heard it stated that as Bandsmen are soldiers they should dress as soldiers, and that consequently special band uniforms are undesirable. Personally I do not agree. The time has gone when pipes and drums were used in battle as an aid to morale, though reference is made to their use in some tactical manuals which are still read, and it is hardly likely that any of our bandsmen will be called upon to carry their instruments in combat. That is not the kind of music a modern enemy has to face. Bands are essentially for peace, for ceremonial and for training purposes, and maintain a very necessary link between the Army and the civilian population. Since their purpose is such, might not their uniforms—at least their dress uniforms—be altered to something more fitting to their activities than the general service uniform as worn at present? There does not seem to be any necessity to restrict their uniform to that which is designed and suitable for other purposes. In some other armies bandsmen wear distinctive uniforms, and no one will argue that the idea is contrary to military practice. It is not suggested that our Band Uniforms should be gaudy and altogether dissimilar to that of the line, but it is suggested that greater changes than the distinctive belt as worn would be both fitting and desirable. Specially made uniforms might be supplied, or if funds were available, a face cloth cap and tunic of much the same colour as the general service pattern. Military cut slacks would then be necessary, and the addition of such braiding as would be selected. When the strength of the A.S.M. is considered, the expense necessary for this innovation would not be a big item of the Army Vote.

Funds will hardly ever be available for the provision of a dress uniform for all ranks, and even if that improbability occurred, it would be more desirable to spend them on warlike equipment. They might be available to equip a special unit which would be stationed in the Capital, and supply State guards and escorts. This, however, is contingent on such a unit being established, and we are not concerned with that possibility at the moment.

In every country where voluntary enlistment is practised special inducements have to be provided to attract the best type of recruits. After the war in England, while they did not revert to their pre-war uniforms except for Guards' regiments

and special units, they did make an attempt to brighten the walking out dress of the private. The introduction of a white pipe-clayed belt was one of the principal features, and it had the desired effect.

Only last month a further step in this direction was foreshadowed. According to an unofficial announcement, the British are introducing a fur busby for their Artillery and Engineer Regiments, while the "obsolete" shako is to replace the helmet for regiments of the line. The change is expected to cost about a million sterling, and it is not stated when it will be operative, still the decision to change is in itself significant.

If we tried some similar innovations it is probable that we might attract a higher standard of recruit. The introduction of special Parade Dress Caps and belts would not be very expensive, and would allow the private soldier the pleasure of getting into "Sunday clothes." Details such as this are big factors in the life of a soldier. They improve a man's bearing and carriage, and every incentive possible should be given towards this end. Again "esprit de corps" is one of the foundations on which morale is built, and we should seek every means of promoting it. Every badge, stripe, and accoutrement which is exclusively his corps' own, will, with the aid of tradition, build up this spirit in the soldier's mind. In what manner can we best stamp their own individuality on the uniforms of our different corps? It must be done only by easy stages, and in the case of mounted services and possibly of others this might be effected by adopting a stripe of sombre colour down the seam of the breeches. It would be distinctive, inexpensive, and still not militate against the serviceability of the uniform. Some of the changes already suggested for other reasons would also have the advantage of increasing the individuality of the different units.

We may now for a moment give some attention to our great coat, though very little comment seems necessary. For all foot units it seems to be suitable, and the only suggestion to be made is that it should be fitted with either buttons or hooks to allow the ends to be fastened back, thus giving greater freedom of movement while marching. With regard to mounted units a shorter coat might be preferable. However these units can best tell us themselves if any alteration is needed. It is noticeable that many troops do not wear their regimental badges on the great coats, and with this observation we will turn our attention to insignia of rank.

Our N.C.O.'s badges are worn only on the right arm. This at times causes mistakes to occur. Recently I saw two sergeants of the Garda Siothchana salute a B.S.M. as they passed him on the left side. The B.S.M. could not, and did not, return the salute, and the Civic Guards must have wondered why. I have at times ordered N.C.O.'s to do work which I would not have asked them to do had I been aware of their rank. The object of wearing insignia is at all times to make known the rank of the wearer, and if our N.C.O.'s wore theirs on both arms it should, at least, prevent the occurrence of mistakes of the nature cited. Incidentally when I recently had occasion to check a soldier for having some of his buttons stitched on upside down, the man's amazement was profound.

With regard to officers' insignia, very often a cut piece of cloth is worn under the bars or stars. When it has been in use for a short time the edge of the cloth

becomes ragged, frayed and dull in colour. When this stage is reached the whole uniform has an untidy appearance. Small brass plates over which the cloth is stretched are available, and are worn by many, and if these were made regulation it would be a decided improvement.

As often is the case, when the insignia is polished, it doubtedly smartens the uniform—but to the cost of its cloth setting. If it is to be polished it would seem desirable to dispense with the cloth mounting. It may also be stated that the wearing of Brass Regimental Badges by officers does not improve a uniform; better none than the wrong thing.

As far as possible officers' uniforms should be similar to that of the non-commissioned officers and rank and file. This is specially so on active service where a conspicuous uniform may earn an officer a special bullet. When special alterations are made in the uniform of any unit such changes should also be made in the officers' uniform. At present some officers are advocating the introduction of an open collar of the type of the British Universal Service jacket, but surely such a change, even if approved, would be unwarranted unless a change to a more open collar was made for the rank and file. Our officers' collar is inclined at times to be a bit "stiff necked," and if any change were to be made it should be a reversion to the 1916 collar which would have the necessary freedom while dispensing with the sloppiness and irregularity of various styles and makes that can be produced in collars and ties. At present various colours and types of gloves are worn by officers, and there is one type of glove which should not be used, and that is the short glove which barely covers the hand. It is very unsightly to see officers marching at the "carry" on ceremonial parades and exposing two and three inches of wrist between the cuff and glove. While gauntlet gloves are not necessary unless approved for mounted services, the minimum length of the glove could be specified to prevent occurrences of this kind. In regard to colour, at least within units it should be possible to have uniformity on parade, and it would be immaterial whether yellow or tan were decided on. If a standard type of officers' cap were approved and available for inspection by military tailors, it should have the effect of doing away with the various styles one sees worn at present. Lanyards are worn by some officers, and are generally green in colour, but it does not seem to be generally known if they are regulation for all commissioned ranks. Another point in regard to officers' uniform is the wearing of brogue boots. These seem to be essentially civilian in character. In regard to great coats, some regulation as to the correct length between the hem of the coat and boot would make for more uniformity. Some coats are worn approaching to Ulsters, while others tend towards the British Warm type. Again, now that swords are worn, a sword slit in the great coat will be necessary, and its manner of insertion will require to be defined.

I have pointed out only some minor points in regard to the officers' uniform. There does not appear to be any need of change in the present pattern, and after recent comparison with that of other armies, I have heard several express the opinion that it was the smartest present.

I sincerely hope that in this article I have trod on several peoples "pet corns." If I have been successful in this it will surely mean that my statements and arguments will be disproved, or an attempt made to do so. There are probably many better ideas on this subject than those expressed here. If we are given the opportunity of hearing and discussing them it will bring us so much nearer the goal of efficiency, which we all desire to reach. It is with this object in view that I have committed myself to so many suggestions.

A DITHYRAMB OF AIR.

DANGER and death are the companions of an Airman, and they are treated with that absence of ceremony with which one treats one's other companions. Familiarity breeds an easy acquaintance, and the fearful greeting of the Caon is unknown. There is no attempt to paint this spectre companion in the high colours of tragedy. The story is told simply: "He stalled—and died." Adjectival embellishment is largely unknown. Sometimes indeed it is treated with a sort of casual scorn. Listen to this Mess Monologue:—

"If you wish to be up-to-date, one of two things is likely to happen. You buy an Aeroplane or you don't buy an Aeroplane, and if you don't there is no need to worry.

"But if you do buy an Aeroplane, one of two things is likely to happen. You go for a flip in that Aeroplane or you don't. And if you don't go for a flip, there is no need to worry.

"But if you do go for a flip, one of two things is likely to happen. You either crash that Aeroplane or you don't crash that Aeroplane, and if you don't crash that Aeroplane, there is no need to worry. And if you do, you can't worry."

So you see you're right every way—fortune or misfortune, dinky flip or sudden death. Anyway 'tis better to have lived fully, to feel good red blood pulsing through healthy veins and end briefly "in one high funeral pyre" than eke out a snail-like life in ground monotony.

Into the air then, up through the clouds, up to the very ceiling of the world above the birds, into those great limitless spaces where the sun alone, unveiled by vapour, rides in peerless majesty, where there is room to breathe and room to move—up and down and across and along, with the roar of your engine and the swirl of the wind singing their mighty accompaniment to the surge of your elemental being. Before you climb above alto cumulous, look down and see those little black specks of humanity, wriggling slowly along the thin, long road—and pity them. "I, mein werther, am above all this. I am alone—with the Sun."

And down below, too, there is an ambulance with its lints and bandages and iodines, standing-to with engine running. And the Doc. is in Camp, and the Padre. Perhaps even you have been measured with an undertaker's eye. And perhaps some will say: "He stalled—and died. . . . " But it is life, and it sings a mighty song . . . and there is no need to worry.

"E. R."

THE REBELLION OF 1803.

BEHIND THE SCENES WITH THE BRITISH.

By MAJOR T. J. MCKINNEY, A.M.S.

Thanks to the courtesy of Dr. Best, Librarian, National Library, who drew my attention to the existence of a file containing, amongst other things, some Manuscripts relative to the Emmet Rebellion—the following material has been made available for publication. The memoranda, compiled in December, 1803, are primarily in the nature of an *apologia*—as the military and civil authorities of the day in Ireland seem to have engaged in mutual recriminations immediately after the event, and to have made frantic efforts to sweep the mud, each as far as possible from his own door, and as near as possible to that of the other. We for a moment take our stand in the Royal Hospital, Kilmainham, and watch the British Army sweeping vigorously in the direction of the Vice-Regal Lodge.

The memoranda in question, and the associated copies of letters and orders are written on foolscap, water-marked 1801. The authorship is not stated—but is not far to seek. The intimate knowledge of interviews and incidents betrayed by the compiler, together with the apparent freedom of access to all relevant documents, suggested by the marginalia, points only in one direction. Caesar wrote his Commentaries in the third person. Incidentally most of the supporting documents detailed in the marginal notes are not available in the collection. Their absence does not affect the argument of the compiler as their substance is embodied in the text.

As already stated, the compilation is a justification of the action taken by the British military prior to the outbreak, and so one must not expect impartial historical narrative. The references to military activities during actual hostilities are arguments in support of a thesis, and throw merely momentary sidelights on the campaign as such. The old propaganda trick of decrying the individual worth of those opposed to Britain is, however, to be expected by the reader; nor will he be disappointed. It is to be found here *in excelsis*.

With all its limitations, it is instructive to superimpose the partisan picture provided by the memoranda upon the native version of the Rebellion.

I must express appreciation of the facilities for copying the Manuscripts afforded me by the Staff of the National Library.

The orthography of the original has been preserved.

* * * * *

"In putting together the following Observations upon the Conduct of the Irish Government previous to the Insurrection, which took place in Dublin on the 23rd July last, it is by no means intended to criminate the Members of it; but when the charge of being unprepared has been openly and publicly brought forward, and when the Avowed Partizans of Government have notoriously attempted to affix Blame upon the Army, it becomes necessary, by a fair and

impartial Statement of Circumstances, whilst they are fresh in everyone's Recollection, and by reasoning drawn from Official Documents, to prove that the Precautionary Measures adopted by the Commander of the Forces were full as extensive, as the information he received, warranted.

¹ Lieutenant General Fox assumed the Command of the Army in Ireland on the 1st June. From that Day to the 14th July he was almost without interruption at Head Quarters and in Daily Communication with the Civil Government. He was never, either in Conversation or by written Document, led to apprehend any thing like a spirit of Disaffection in the Country. On that Day (the 14th July) he went upon a short Military Tour to the West of Ireland, leaving, however, in Dublin, His Military Secretary, who had always been in the habits of Confidential Correspondence with the Chief Secretary's Office on the State of the Country. His Return to Head Quarters on the Evening of the 21st July was known to Government. Early on the Morning of the 22nd. he sent his First Aid de Camp to the Park Lodge, Officially to report his Return to the Lord Lieutenant, and requesting to know if his Excellency had any Commands. In Reply he received a Verbal Message, stating that the Lord Lieutenant had nothing particular to trouble him with, but that when his Business was over the next Day, he (the Lord Lieutenant) would be glad to see the Lieutenant General at the Lodge, and begged that an Hour might be named. Two o'clock was fixed upon. During the forenoon of the 23rd Sir Edward Littlehales called upon the Lieutenant-General and spoke to him upon the subject of some disagreeable Reports, but certainly did not appear either to credit them himself, or in Consequence to urge any Measures as requisite to be taken.

At the Hour appointed the Lieutenant-General proceeded to the Phoenix Park, where the Lord Lieutenant, in General Terms, stated that some unpleasant accounts had been received during the course of that Morning, and spoke of some events of a suspicious Nature which had occurred in Dublin the preceding Week ; but still without appearing to apprehend any specific object or Intention of the Disaffected.

Here let us pause for a moment. The Period we are now speaking of was not eight hours before the Insurrection actually took place. The Commander of the Forces had not returned from his tour two days. Totally dependant upon the Lord Lieutenant for all intelligence on the State of the Country for nothing extraordinary had been reported to him by any of the General Officers under his Command, had the Lieut. General any Grounds from his Excellency's Conduct to apprehend that he was within Eight Hours of an actual Rebellion in the Metropolis ?

To proceed—whilst in conversation with the Lord Lieutenant a note came from Mr. Secretary Marsden, Communicating that the Accounts he had received were so serious as to induce him to wish his Excellency, and the Commander of the Forces if with him, might repair to the Castle. They went there together. The reports Mr. Marsden laid before them *went* certainly to an intended Rising that

¹ Vide Report of Major Humber No. I.

night—but the Lord Lieutenant could not credit the Reports. It was, however, mentioned that a greater Quantity of Specie than Common was collected in the Bank, and from the Possibility that this Circumstance might have got abroad, it was suggested that some attempt might be made there.

The Result of the Meeting was a Determination to reinforce the Bank and Kilmainham Jail Guards, and to take precautionary measures about the Pidgeon House; but the wish to avoid creating any alarm was so seriously inculcated that it was specially agreed upon, the Reinforcement even to those Guards should not take place until the Evening—at which time it was agreed that the Commander of the Forces should make confidential Communications, on the subject of Patrols, to the General Officers in Garrison and to the Field Officer of the day. The Meeting then broke up and Lieut. General Fox returned to his Quarters at the Royal Hospital.²

As this was the only personal Communication the Commander of the Forces had either with the Lord Lieutenant or Mr. Marsden, from his return to Dublin until after the Insurrection had taken place and had been subdued. This is the proper moment to examine what actually were the Impressions with which he was suffered to depart; and if it shall appear that the Lord Lieutenant (who from his Situation and long Residence in Ireland must be supposed best acquainted with the State of the Country) did not act as if he credited the Reports, it may be presumed that the Lieut. General parted from His Excellency more fully impressed with the necessity, so strongly inculcated, to avoid giving alarm, by the Measures of Precaution determined on, than with the Idea that any Rising of a serious Nature was actually expected.

It will be recollected that from the Day that Lieut. General Fox assumed the Command of the Forces in Ireland, to that on which the Insurrection took place two months had not elapsed, and that previous to the 23rd July no Communication had been made to him by Government either directly or indirectly, that a Spirit of Disaffection was increasing in the Country, much less could he suspect that Insurrection was already matured at the Seat of Government, and on the Eve of bursting out under the eye of an arranged System of Police.

Had an implicit Credit been given by the Lord Lieutenant to the Reports which had been laid before His Excellency by Mr. Marsden that an Insurrection was to take place in the Course of the Night, would the wish to avoid creating any Alarm have been so strongly urged to the Commander of the Forces, that he was not only to delay until the Evening ordering Reinforcements to the two Guards, but to defer to the same time Communicating with the General Officers in Garrison and the Field Officer on Duty on the Subject of Patrols. On the contrary, if Government really believed an Insurrection was to have been attempted that night, is it not probable a Council would have been summoned and a Proclamation issued to forbid the Assembly of People? Instead of which, it appears that no Communication was deemed necessary to be made either to the Chancellor or the Lord Mayor—The Lord Lieutenant returned to his Residence

² At this Meeting were present the Lord Lieutenant, The Commander of the Forces, and Mr. Marsden.

in the Park, with no other Protection than his ordinary Guard of a Sergeant and Twelve Men; and both the Chancellor and the Lord Chief Justice of the King's Bench were suffered (unapprised by His Excellency that any Danger was apprehended) to remain at their Country Seats, situated nearly six miles from Town, towards those Mountains, which in the last Rebellion were the Resort of the Disaffected. Indeed it must occur to every one that if a Disturbance of a serious Nature had really been apprehended by Government, it would have been its Duty to have sent Civil Magistrates to the different Barracks, to order the Troops to act on the first Appearance of a Rising; for it must be observed that so little were Ministers aware that Insurrection was meditated that the Suspension of the Habeas Corpus Act was not applied for until after the Rising had actually taken place, and evinced the necessity of it, Consequently the Troops could only act on the Defensive, except under the Directions of the Civil Magistrate—That this was really the Situation in which the Military were placed on the Night of the 23rd will evidently appear in detailing the Occurrences of that Night when it will be found that Justice Drury, one of the Police Magistrates of the Town, took out a Patrole of the 21st Regiment from the Coombe Barracks, fell in with a Body of the Insurgents in Meath Street yet refused to give Orders to the Troops to fire on them. This Circumstance alone, if further Proof was requisite, must carry Conviction to the Mind of every unprejudiced Person, that Government did not attach Credit to the Reports that an Insurrection was to take place, for if believed, it cannot be supposed instructions would not have been sent to the Police Magistrates to take the most prompt and decisive Measures on the first tumultuous appearance.

Immediately upon the Lieutenant General's Alarm, the Necessity for Privacy was urged. He immediately obeyed the Order, was informed of the general Apprehension, directed to be upon his Guard and dismissed.

We will now retrace the precautionary Measures which had been already taken:—Colonel Manly had been put on his guard, and had reported the Pigeon House safe—Detachments had been sent to the Powder Mill at Clondalkin, and to take care of the Ammunition at Chapelizod. The Lord Lieutenant's Guard at the Park had been doubled, Kilmainham Jail strongly reinforced and the Officer put on his Guard.

It was becoming dark, and in Compliance with the Orders they had received to that effect, Major General Sir Charles Asgill,^a B. General Dunne, Colonel Cotton and the Field Officer of the Day, Lieut. Colonel Vassel, now assembled at Head Quarters. They had hardly collected and been generally informed of what was apprehended when a Third Note^d was received from Mr. Marsden to the following effect.

"Dear Sir,

"Our accounts grow more serious, and I am told that men are marching on the Line of the Canal. Appearances look but uncomfortable.

"Yours, etc.,

"S. MARSDEN."

^a The ruffian of Kilcomney Hill in '98.—T. McK.

^d Vide No. 10.

This Note though in some degree stronger than the former, still pointed to no Specific Apprehension, and it is somewhat extraordinary that as nearly as could be judged it must have been written about 9 o'clock, a quarter of an hour after Mr. Clarke in Company with Mr. Willcocks, both great Manufacturers at Palmerstown, had been fired at and wounded on Arran Quay, and had returned immediately to the Castle; but we can scarcely suppose this Circumstance to have been known to Mr. Marsden at the Time. It here becomes necessary to observe that *Midnight* was the time on which Reports agreed, that whatever was intended would be attempted.

The Lieut. General now considering maturely what was contained in this last Note, gave Orders to B. General Dunne to reinforce the Bank Guard with Fifty Men, and to forward the intended Reinforcement of a Captain and Fifty Men to the Castle. The Guard at the Phoenix Lodge was further reinforced by an Officer and Thirty Men. It was also found expedient to double the Guard at Harold's Cross. General precautionary Instructions were likewise given to the Brigadier who was Resident in the Barracks, and to the Field Officer, relative to visiting the Guards and the Patrols within the City, and about half an hour after nine o'clock they returned to the Royal Barracks. Colonel Cotton now received Directions for Patrolling the Avenues to the City on the Suspected Points and Sir Charles Asgill also received such instructions as the Lieut. General deemed requisite under the very indefinite Information he had received, but most undoubtedly embracing every possible Contingency, taken in the most serious Point of View, that could happen, as far as the little Force he had in Garrison enabled him; as the happy termination of this unforeseen Insurrection has fully proved. About a quarter before ten o'clock the Major General and Colonel Cotton set out to return to the Barracks—in going along James' Street in less than five minutes afterwards they fell in with a Party (as appeared subsequently) of the 21st Regiment firing upon the Insurgents, and not knowing the extent of the Business, returned to the Royal Hospital. The small Guard there was instantly turned out—Arms and Ammunition given to such of the Old Pensioners as were able to use them, and every Measure to prevent the Success of an Attack taken—Sir Charles Asgill and Colonel Cotton now again set out for the Barracks, and by crossing the Liffey at Island Bridge instead of going through the Town, reached them without Interruption, putting into Immediate Execution the Order they had received.

For some little time the Head Quarters remained in anxious suspense, uninformed of the Issue of the Business in James' Street and at a Loss to account for the Military being in Arms there. An Aid de Camp was however despatched to Collect Intelligence and soon returned with a Report that Forty Men of the 21st Regiment, with an Officer going from their Barracks in Cork Street to bring their Lieut. Colonel (Browne) from his Quarters to the Barracks,⁵ had fallen in with a large Body of the Insurgents in Thomas Street near James's Gate—that one of the

⁵ The Commanding Officer in Cork Street Barracks having got Intelligence that men were coming in different Parts of the Liberty had despatched his Party to escort Lt. Colonel Browne, Commanding Officer of the Regiment, from his lodging in Ushers Island to their Head-Quarters in Cork Street. Many of the Officers of the 21st Regiment were in Lodgings for want of Barracks.

Leaders of the latter, armed with a Pike and a little advanced in front of his Party fell in with the Officer of the 21st at the Head of his Men, who instantly seized him—that a shot was fired at the Soldiers and they were in a Moment surrounded—the Men, however, with great Steadiness returned the Shot which had wounded one of them, and began independent Firing, which in a very few seconds cleared the Street, leaving in their Possession Fourteen Prisoners, and abandoning a number of Pikes afterwards taken up. The Officer who Commanded this Party (Lieutenant Brady) stated that he had deemed it prudent to fall back upon James' Street Barracks, where he had put himself under the Orders of the Officer who Commanded the Company there, having been induced to do so, because he understood the Insurgents were in greater Force in Thomas Street, and because, having no Civil Magistrate with him, he did not feel Authorised to go in quest of them, altho' he had been obliged already to act in his own Defence. While this Report was making to the Lieut. General he received a Letter from the Lord Lieutenant at the Lodge in the Park.⁶ To judge from the Time of its being received this Letter must have been written about half past nine o'clock. It begins by stating that Lt. Col. Aylmer of the Kildare Militia had called between Seven and Eight o'clock (*two Hours before*) and stated that he had got Information from respectable Authority that a strong Party was to come in from Maynooth, and to visit the Lodge on their Way. He also mentions that Mr. Clarke the Manufacturer had taken a fresh alarm. His Excellency further offers some Suggestions about the Mail Coach Escorts saying that, *if it should appear* there was any Plan to stop them, it might *perhaps* be better to order the Escorts to go a little further than usual; but here again, the first Object of *preventing alarm* in the Country appears uppermost; and it is not an overstrained Inference on the last Paragraph of His Excellency's Letter, wherein he observed that Lt. Colonel Aylmer has a Difficulty in crediting the Report of a Rising in Dublin to take it as a fair Proof that Lord Hardwicke did not believe it himself. It is *clear* he did not Credit the Intelligence respecting the Party from Maynooth, by his remaining at the Park. Neither can the Postscript to his Letter be allowed to pass unnoticed, as a complete Proof how predominant the Necessity of preventing Alarm was in the Mind of Government. His Excellency adverts to the Reinforcement that had been made to the Guard, and adds "*that as the Alarm was given, that Precaution would not add greatly to it.*" A few Minutes afterwards a second Letter was received from the Lord Lieutenant with two Enclosures—one from Mr. Marsden stating that Appearances of the Disturbances were seriously increased; and the other from a very respectable Gentleman, but who certainly in his Apprehension of Danger, misrepresents the State of the Soldiery, as had the Case been as stated numbers must have fallen Victim, whereas not one did so fall. In answer to the former Letter, a short Report of what had taken place was made, and in Conformity to the latter, a Captain's Guard ordered from the Barracks.⁷ It however appeared afterwards by a Report from Sir Charles Asgill, that on a Requisition from Sir Edward Littlehales, a Field Officer with Fifty Cavalry and one Hundred Infantry,

⁶ Vide the Lord Lieutenant's Letter No. II.

⁷ Vide No. 13.

had, previous to the Receipt of the Lieut. General's Order moved to the Phoenix Lodge.* In addition to the Report made by the Lord Lieutenant, the Commander of the Forces, adverting to a Paragraph in His Excellency's Letter, said that the propriety of His Excellency's remaining at the Park, or removing to the Castle, was too delicate a matter for him to decide upon, but that he conceived the Danger was nearly over for the Night.

It was now approaching near Midnight. In addition to what had happened in James' and Thomas Streets, it was ascertained that an Attack had been made on the Coombe Barracks, which had been repulsed and a Reinforcement of a Company from Cork Street Barracks placed those at the Coombe in perfect Security—A Field Officer and a hundred Men had been directed to take Post in the Market House in Thomas Street, Commanding the Entrance of that Street and Francis Street, Vicar Street, John's Lane, New Row and Cutpurse Row—a Patrole of one Hundred Men under a Field Officer had been sent to search the Vicinity of Bridgefoot Street—a Captain and Fifty Men were sent into Thomas Street—another Patrole of a Captain and Fifty Men were sent to Vicar Street—and the 16th Light Dragoons were employed patrolling the Avenues to the City. In a Word, every necessary Precaution was taken to preserve the Superiority already gained over the Insurgents, and to prevent their further attempts, which every Report that came in showed the Improbability of, it becoming every instant more apparent that nothing further was to be apprehended from without ; and it was equally evident that those within the City having failed in their first Attempts, when they had the Advantage of Surprise in their Favor, were not likely to renew them, when the Garrison, Completely on its Guard, was prepared on all points to receive them.

It now becomes necessary to give a particular Statement of what had passed at the Coombe, in order to obviate an Accusation which has been brought forward, and which certainly could only have originated from want of Information on the Subject ; viz. :—That the Business in this Quarter was allowed to continue too long, and that strong Reinforcements ought to have been sent there earlier, to have terminated the Affair more speedily. But a fair and impartial Statement of the Proceedings there will show that the Company at the Coombe was at all Times equal to its own Protection, and that if it did not, in the very first Instance, put an End to the Insurrection in that Quarter, it was owing to the Civil Magistrate who would not authorise the Military to fire, and not to any want of Energy on their part. But granting for a Moment that such Reinforcement had been expedient, a Reviewal of the Detachments which had already been made, together with the Numerous Patroles, will show that of the whole Dublin Garrison, there did not remain in the Royal Barracks, of the two Regiments quartered there (the 32nd and 30th) together above 600 effective Men, for the Protection of the whole North Side of Dublin, where the Barracks, the Bank, the Custom House, and Newgate are situated—That of the 62nd Regiment (in

* Vide No. 14.

Barracks in the Town) which gave the Guards that Day, there only remained about 100; and the 21st Regiment, quartered in the Liberties, could not be more dispersed than it was.*

The Facts are these; about half past Nine o'Clock, Mr. Drury, a Magistrate, called upon Lieutenant Douglas at the Coombe, where he Commanded the Light Company of the 21st Regiment, consisting of about 57 Rank and File. Mr. Drury informed him that Disturbances were apprehended, and that it was his Intention to patrol the Streets every two Hours—at Ten, Twelve, and so on during the Night. He further cautioned Lieut. Douglas to be alert; and especially to take care of the Barracks. This Officer in consequence gave the necessary Orders to his Centinels, and the Magistrate had hardly left him with his Patroie, when he received Instruction from the Sentry which induced him to turn out the Company, and make them put on their Accoutrements and prime and load. He now received Intelligence that Mr. Drury with his Patroie were at the head of Meath Street surrounded by the Rioters. This led him to move with his Men towards the Spot, and he there met the Magistrate. On opening Meath Street, He found the Rebels regularly formed across the Street, and armed with Pikes. He then requested Orders to fire upon them. This was refused by Mr. Drury, He alledging that this part of the Town was not in his Jurisdiction, tho' in this Case it certainly would be difficult to account for his patrolling in it. The Lieutenant upon this wished to return to his Barracks, but the Justice would not allow it, and stated the necessity of the whole Company moving down Meath Street. It is to be remarked that the whole of this Conversation was overheard by the Insurgents, whose Leader, walking in their Front, was distinctly heard encouraging them, and desiring them to be steady. The Part of the 21st then moved forward, when the Rebels wheeling back from their Centre, with their Backs to the Houses, formed a Lane or Defile for the Soldiers to pass. Lieutenant Douglas observing this, gave Orders distinctly and loudly to his Men to Fire, if the least Attempt was made upon them. The Instant this was heard by the opposite Party, a Number of them threw down their Pikes and fled; whilst in the Confusion caused by this Circumstance the Party of the 21st moved on rapidly. Their Steadiness was more than the Insurgents found themselves equal to oppose, and they ran away in all Directions leaving the Street quite clear in a few Minutes except one old Wretch, who had the Audacity to attempt piking a Soldier. He knocked him down with the Butt End of his Firelock, and killed him with his own Pike unobserved by his Officer. The Party then proceeded down Meath Street, along Thomas Street, where they drove a Party armed with Pikes out of the Market House, and returned to the Coombe through Francis Street. It had scarcely arrived at Barrack when it was attacked. The Magistrate now gave Mr. Douglas Authority to fire, when two Rounds completely terminated the Affair; and although subsequent Information proved that repeated Attempts were made to induce these Wretches to renew the Attack, they could never be brought again to show themselves.

We will now Conclude this Statement by observing, that on a Candid Consideration, supported as every part of it is by original Vouchers, it must be

* *Vide* B. Major Dunne's Report No. 15.

allowed that Lieut. General Fox received no Information from Government to Authorise either earlier or stronger precautionary Measures to be Adopted, than those which were taken by him. That the Civil Government did *latterly* begin to entertain Considerable Apprehensions is allowed—but that they were at all aware of the Extent of the Preparations, or appeared inclined to give Credit to the Reports of a Rising, no Man, however warmly their Partizan, will attempt to maintain. Under such Circumstances, would Lord Hardwicke, by his Return to the Lodge in the Park, a Mile and a half from any Military Protection save a small Guard, have exposed the Person of the First Magistrate to Insult, to being made a Hostage, or to a worse Fate? Would he have left his Family there? Would Mr. Secretary Marsden have left His at the Park, at a still greater Distance?

The Feeling of Government may be resolved into this—It had flattered itself that the Country was in a more tranquil State than it really was—It had publicly maintained that Opinion in Opposition to the Assertions of People of a different Way of Thinking—It was unwilling to alter that Sentiment, or to allow its having been deceived. It hoped therefore that certain precautionary Measures would have been sufficient to prevent the threatened Mischief, and wished that those Measures should be taken so Secretly, that, in Case of their Purpose being answered, it might not appear to the World, how erroneous its Statements had been in respect to the real State of the Country. Had it been at all aware of what was intended, it is natural to suppose the Lord Lieutenant would have repaired to the Castle. Probably the Commander of the Forces would have been requested to do the same. The Civil and Military thus under one Roof would have acted instantly in Concert. Earlier and more decided Measures would have been adopted, and the Insurrection with Facility prevented. The strong and constant Injunction to prevent Alarm fettered the Commander of the Forces in his Directions.

It would be vain to assert that he had any Intimation at all of what was intended—for giving every possible Force to Mr. Marsden's short Note of 9 o'clock it cannot be maintained for a Moment that a Letter received at half after Nine o'Clock is an Intimation of an Insurrection which Commences at a quarter before Ten. Perhaps it would not be fair to infer from the Conduct of Mr. Drury (who certainly in the first Instance treated the Affair as a Common Riot) that Government had no Apprehensions of an Insurrection, because this Gentleman might not be in its Confidence—but it may certainly be very fairly supported that had Government apprehended a serious Rising, Magistrates would have been directed to be in Readiness to give the necessary Authority to Act; whereas, so far from that being the Case, no Magistrate appeared or attended to any Military Post in the Evening of the 23rd July, excepting Mr. Drury who certainly did more Harm than Good. In a Word, the more the Transactions of that Evening are investigated, the more it will be found that every part of the Army did its Duty—The Commander of the Forces fully taking such Precautions as the Information he received warranted, and the subordinate Officers and Soldiers unsupported by the Civil Authority, Acting with a Degree of Steadiness, Discipline and Firmness, particularly the 21st Regiment, that will ever do them Credit, and to which alone

is to be attributed the easy and almost Instant suppression of an Insurrection, which at the Time appeared as formidable in its *Preparation and Means of doing Mischief as any in History.*

Note :—Among many other Reflections which, through Ignorance, have been thrown on the Conduct of the Commander of the Forces, is that of having issued a General Order to grant Furloughs to Men, to be employed at Harvest Work, the Day after the Insurrection took place—The Fact is this :—A General Order, circulated in Great Britain to this Effect, dated the 12th July, was received in Ireland from the Adjutant General Colonel Calvert—It was promulgated to the Army in Ireland on the Morning of the 23rd July (Saturday) and cancelled throughout the Kingdom on the 25th (Monday) that is the very next Post.

If further Argument were wanting to prove how far Lieut. General Fox had been led to consider Ireland as perfectly quiet, by the Government of the Country, that is by their never having represented the Contrary, this very *circumstance would afford it.*

Note : Lest there may arise some Misconception in regard to a Letter that was written by Lord Hardwicke to the Commander of the Forces, while He was on his Western Tour, stating the Circumstance of some Gunpowder having blown up in the Liberty, it may be necessary to observe, that in consequence of neglect of the Post-Master at Tullamore, it did not come to the General's Hands till the 28th July (five Days after the Insurrection took place) in consequence of which a Regular Complaint of the Post-Master of Tullamore was made to Mr. Secretary Marsden by the Military Secretary Colonel Beckwith.¹⁰

* * * * *

Memorandums relative to the 23rd July, 1803.

It has been asserted in the House of Commons December 13 either by Mr. Yorke or Mr. Addington that the Lord Chancellor dined with the Lord Lieutenant on the 23rd by which it was, perhaps, meant to insinuate that the advice of the first Counsellor in the Kingdom had been called for at the critical period :—but that this was so far from being really the Case, that it is a known fact that Lord Redesdale was suffered to remain at his Country Home (Kilmacud) 5 miles from Dublin towards the Wicklow Mountains, the known resort of the disaffected at all Times, totally unapprozed of what the Irish Government now say they expected, and had he by accident returned to Dublin that night, he perhaps might have met with the same fate as Lord Kilwarden—It has likewise been asserted that the Lord Mayor received previous and *early* information ; We may easily imagine of how serious a nature this information must have been when in the very evening between 8 and 9 of the 23rd, the Mansion House itself, the actual residence of the Chief City Magistrate was plundered and stripped of a number of Arms, that decorated his Hall—With respect to the Information sent to the Commander-in-Chief, it is certain that he never had the slightest information conveyed to him till three o'clock of the very 23rd, when in the Course of a conversation with the Lord Lieutenant *began* on indifferent subjects the Circumstances of Suspicions being

¹⁰ Vide No. 16.

entertained was introduced and that it was past four o'clock when (with the Lord Lieutenant) he was sent for to the Castle where, whatever was the information laid before the Lord Lieutenant and himself by Mr. Marsden, and by which General Fox was induced to strengthen the several Guards in the Town that were augmented on that evening, it is evident that no great degree of Credit was attached to it by Lord Hardwicke himself, otherwise he never would, by returning to the Phoenix Lodge, a mile and a half from any Military Depot have run the risk of exposing the person of the King's Representative on the night of an *expected Insurrection* to the mercy of a Dublin Mob, nor had His Excellency or Mr. Marsden been accurate as to the credibility of their information, would it have been specially agreed upon that the Commander of the Forces should not permit the increase of Guards to march off until after dusk, and to delay communicating to the Commanding Officer of the Garrison till the same time, the suspicions that were entertained—and here it should not be forgotten to what a very large amount the sum for Secret Service Money in Ireland at the disposal of the Secretary is annually granted—Much has been said of the motives that induced the Lord Lieutenant to return to the Phoenix Park, but the only just inference to be drawn from that circumstance is that *he did not believe* in the reports laid before him.

Mr. Yorke said on Friday night last in the House, that General Fox immediately after the 23rd had absented himself from the Castle, which assertion of the Secretary of State seemed, and very justly too, to make a great impression on the House and he added that from that period a coolness had arisen between the Lord Lieutenant and the Lieut. General; This is so far from being Fact, that it is notorious to every Man that was at the time in Dublin, that the General attended every one of the Privy Councils held in consequence of the events of the 23rd and his name may be seen affixed to every one of the Proclamations severally issued for the next 8 or 10 days, and he moreover regularly saw the Lord Lieutenant every day both before and after Council in his private room and instead of any Coolness taking place between Lord Hardwicke and General Fox at that time, the former was engaged to dine with the latter on the 16th August (the Duke of Yorke's Birthday) and was only prevented by the indisposition of the General; a *Coolness certainly arose* soon after this last period when by a variety of Reports the character of the Commander of the Forces began to be aspersed, all of which, from everything that could be learnt, originated at the Castle.

The Letter respecting the explosion of the Gun Powder on the 16th of July, which had been trusted to the common Post and not thought of sufficient consequence to be forwarded to General Fox (then on a Military Tour), by a Messenger, did not reach General Fox till the 28th and not on the 21st July as stated by Mr. Yorke.

Note: Sir E. B. Littlehales called upon Lieut. General Fox about *two o'clock* on the Saturday (the 23rd) and mentioned to him in the course of his Visit that things in general did not bear so pleasant an aspect in Ireland as they had done some weeks before, and that private meetings during the night had recommenced, which had not been the case during the Peace. Sir E. B. added that he imagined the Lord Lieutenant would speak further on the subject to the *Lieut. General when they met.*

Secret.

R. Hospital,
23rd July, 1803.

Sir,

I am directed by General Fox to acquaint you that Government have received Information of some intended Disturbance in or near Dublin this Night, and that although these Informations are frequently without Foundation, or at least much exaggerated, The Pigeon House, and other Ordnance Depots are of such consequence that he has thought it right to give you this Intelligence that you may give the necessary Orders, and take such Precautions without giving alarm, as may appear advisable, but he desires me to repeat the Necessity of being very Cautious in not giving Alarm.

I have the honour to be,
Sir,

C. P.

A. D. C.

Colonel Manley,
R. ARTILLERY.Dublin Castle,
Saturday.

Dear Sir,

Colonel Finlay informs me that there is ample Accommodation for Troops at Rathcoole—he is very anxious to have them there, and at Clondalkin (the Powder Mills) and he is very desirous of going with them himself this Night, if they could be sent—he thinks by patrolling with a few Cavalry to Night that the Country would be kept in order.

It will be of consequence to prevent any Attack on the Mail Coaches, and perhaps it will be right to give particular Orders, respecting the Escort—I ask your Pardon for troubling you with all these matters. Since I saw you the former Reports have been added to by several Communications.

Yours very faithfully,

A. MARSDEN.

The Commander of the Forces.

Secret.

Royal Hospital,
23rd of July, 1803.

Dear Sir,

There is a Degree of Alarm, which altho' not to be entirely believed, came from such Authority that ought not totally to be disregarded. I shall be glad to see you here about nine O'Clock this Night, but am to beg you to say nothing about this, and come up here as privately as possible. Should this not reach you

in Time, you will have the Goodness to come here to-morrow Morning by 6 o'clock. It is of the greatest Moment that no Alarm should be given on our Part and I will myself give the necessary Directions for the Night.

Yours very faithfully.

H. E. FOX.

Since writing your Dragoon is come to me.

I send this by Him and *shall of course have the Pleasure of seeing you this Night.*

A true copy.

Chas. ASGILL.

Major General.

Captain Green, A.D.C. attended the Commander of the Troops on the 23rd of July at the Castle, and after the General had an audience with His Excellency the Lord Lieutenant, he immediately drove back to the Royal Hospital, and wrote to Major General Sir Charles Asgill to apprise him of the Intimation of Alarm he had received from His Excellency—Captain Green wrote to Brig. General Dunne at the Royal Barracks, Colonel Cotton (Commanding the Queen's Light Dragoons) and to Lieutenant Colonel Vassel (Field Officer of the Day) desiring them to be at Headquarters at a Quarter before Nine o'Clock that Evening. Between the Hours of 6 and 7 Captain Green was ordered to write to Brig. General Dunne or Officer Commanding the Royal Barracks, to augment His Excellency The Lord Lieutenant's Guard in the Park, the Castle, the Bank, and Kilmainham Jail Guards."

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THE QUININE TREATMENT FOR VARICOSE VEINS.

By CAPTAIN J. J. McARDLE, A.M.S., Irish Army.

By kind permission of the Bulletin International—Journal of the International Congress of Military Medicine and Pharmacy.

THOUGH in all armies varicose veins debar from admission to service, the suitable treatment of this condition must often present itself as a problem for the consideration of Military Medical Authorities. The soldier who at the time of attestation showed no signs of tortuosity or dilatation of his veins may and often does develop such pathological conditions at a later period of service. This is probably due to an inherent tendency not manifest at the time of enlistment, to prolonged periods of standing whether on sentry duty or parade, and in those armies where gaiters are worn to above the calves, and the breeches tightly laced at the knee, to the fact that these articles of clothing form a constricting band which must necessarily interfere with the superficial circulation in the limb. In time of war the removal of this disability in otherwise fit individuals will render suitable for service a very large and welcome addition to the forces. In times of peace the Medical Officer examining recruits is often presented with the problem of a candidate who both physically and mentally is the ideal material for the making of the perfect soldier, but who through varicosity of one of the smaller radicals, or the presence of a small varix on one of the main veins falls technically below the standard of fitness. The question of extension of service will also arise, especially in the case of those who hold pivotal positions or are specially qualified in some particular branch of military work.

For many years operative treatment as the radical cure of the condition held the field, but for the last seventy-five years many attempts have been made to alleviate the condition by the intravenous injection of various chemical substances—the object being to obliterate the lumen of the affected vein. Many substances were used and much success attained—the success and popularity of the method to-day being largely due to the French workers, especially Sicard, Gangier, and Genavrier.

For some time past, following the publication by A. H. Donthwaite, M.D., M.R.C.P. (London), attached to Guy's Hospital, of his technique and results, the injection treatment has been in use in the Irish Free State Army. The solution used is that recommended by Genavrier, and with which Dr. Donthwaite achieved the vast majority of his successes. The formula is:—

Quinine Hydrochloride (B.P.)	...	4 grammes.
Urethane	... ..	2 "
Distilled water	... ..	30 c.cs.

This solution can be boiled, and is suitable for the larger hospitals, but in actual practice we have used a similar solution supplied prepared in aseptic ampoules of 2 c.cs. each, by Parke Davis & Co.

The technique is simple. The patient is placed standing on a chair or in such a position as renders the part to be injected accessible, and the skin is then cleansed with aether. No tourniquet or other constriction—except perhaps digital pressure above the point of injection—has been found necessary to make the veins sufficiently prominent for injection. The ampoule is placed in hot water for a few moments, as the high concentration of the solution causes some of the quinine to deposit when the contents of the ampoule are cold. The neck of the ampoule having then been broken, sufficient of the contents for one injection is withdrawn into an ordinary hypodermic syringe. The air from the syringe is expelled, its needle inserted into the vein, and a small quantity of blood withdrawn to demonstrate the fact that the vein has been pierced. Having established that the lumen of the vein has been reached, the contents of the syringe are injected at normal hypodermic rate, and the needle is held in position in the vein for about 30 seconds. At the end of this period it is withdrawn, the point of puncture touched with iodine, and a small pad strapped over the wound. At this point it may be mentioned that the ordinary hypodermic syringe is sufficiently suitable for the work, but it has some disadvantages. These disadvantages have been overcome by a modification of the syringe by Katz, made by Doctors Katherine and C. J. Cellan-Jones and described in the *British Medical Journal* of May 5th, 1928.

As regards quantity— $\frac{1}{2}$ c.c. is sufficient for a first treatment, and is given into the lowest portion of the vein affected. At subsequent treatments—no complications having arisen—as much as 2 c.cs. can be given, divided into 2, 3 or 4 injections at intervals of $1\frac{1}{2}$ to 2 inches up the vein. From four days to a week is usually allowed to elapse between treatment, but should any inflammatory reaction follow the next treatment is better postponed until this has subsided, or treatment should be given on another limb if the condition is bilateral. Immediately after each treatment the patient is returned to duty.

I do not propose here to discuss in detail any complications or distressing sequelae of this form of treatment, as in none of our cases have any worthy of note been observed. According to Dr. Donthwaite's results the complications in general practice are practically negligible. In Military Practice—and it is our experience that this is so—they should be entirely negligible, for here we are dealing with otherwise perfectly healthy males. In most instances the patients experienced absolutely no discomfort, in others a slight redness and a little soreness lasting two or three days were the only reactions. These reactions occurred mostly in the larger varices, and it was noted that the more marked the reaction the better the result. At no time was the reaction sufficient to warrant excusing the patient duty.

The results in all cases were good. In cases where varicosity was confined to the smaller branches, two or three treatments sufficed; in the more general cases with marked tortuosity and dilatation of the main veins not more than six treatments were necessary. All cases were unfit for service when treatment commenced; all were fit for service at its expiration. In one instance the patient presented was suffering from a marked general recurrence following operative

treatment. As a result of a series of injections he was brought up to army standard and on completion of service was able to secure a position in a private concern where candidates have to submit to a searching medical examination before admission.

From a military point of view the advantages attached to this form of treatment cannot be over-estimated. The patient is saved the inconvenience of what is oftentimes a severe operation involving a general anaesthetic necessitating anything from fourteen to twenty-one days (or longer) of complete rest in bed. Operation can only be performed in suitably equipped hospitals whereas there is no need to detach the soldier from his unit for the purpose of his injection, as even in the smallest outposts the Medical Officer with the necessary ampoules, a hypodermic syringe, and a first-aid outfit, can administer the treatment.

In the matter of cost, the advantages are much more apparent. Chemical treatment gives rise to no ineffectivity as the patient is returned immediately to duty. He is treated at his unit, and travelling vouchers at the public expense to and from hospital are not issued. The cost of the drugs is exceedingly small.

For the purpose of comparison, I analysed the Admission and Discharge Books of one of our hospitals. During the year immediately preceding the introduction of quinine treatment nineteen cases were admitted to this hospital for operation for varicose veins. The total period of ineffectivity of these nineteen cases was 685 days or an average of 36.05 days for each case. This was equivalent to one ineffective for slightly under two years, resulting in a loss to the army in pay, rations, and clothing, of about £300. Add to this the fact that some of these patients travelled considerable distances to and fro at the public expense, and the total cost amounts to a very considerable sum. Since the introduction of injection treatment no patients have been admitted to the hospital in question for the treatment of varicose veins.

The cost of chemical treatment is small. The 2 c.c. ampoule costs 2.28 pence. Allowing the maximum number of treatments, six, for each case (and our average has been lower) and accounting for iodine, aether, and dressings, an allowance of two shillings per case would be a generous estimate. On this basis the nineteen cases mentioned above could have been effectively treated at a cost of £1 18s. (one pound and eighteen shillings). Allowing for time lost—say two hours in reporting to the Medical Officer—each patient paying six visits, the total period of ineffectivity of the nineteen cases would be $9\frac{1}{2}$ days as against 685. The comparison needs no comment.

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BIG GAME FISHING IN IRISH WATERS.

By DOCTOR O'DONEL BROWNE.

IN the October number of AN TÓGLACH there is an appeal to all to develop a hobby. With the paper came a request to me to put an article dealing with my pet hobby, in the hope that it would induce others who have a bent for fishing to follow suit.

There was a time when I spurned sea-fishing, and now I am sorry I have missed so many years' sport, for in the last few years I have had my eyes opened. Having read those gloriously penned books "Tales of Fishes," "An Angler's Eldorado," etc., by Zane Grey, I began to envy him. True, it (as carried out by him) is a costly business. But some few years ago I was introduced to our Irish Shark, and I began to argue: Why not try and act Zane Grey at home? I joined the British Sea Angler's Society, 4 Fetter Lane, Fleet Street, London, and from the most obliging Secretary got any hints I asked for. I bought his book—it is the standard work at present on Sea Angling—and I read it over and over. The work is "Modern Sea Angling," by F. J. Holcombe. In it you will get any hints you want. A member of the B.S.A.S. gets special terms for boat, bait, etc., anywhere the Society has an agent, and, moreover, can get any book from the library of the Society.

Now in these days, when all good inland waters are snapped up by men with long purses, and one dare not look at them, to a man with a slender purse, who wants plenty of good air, sea bathing, and a good time, I recommend sea angling. By the latter word we mean fair, sporting work with a *rod*—none of your hauling up little fish on a cart rope. This is fishing of sorts, but I cannot see the fun in it. To angle with a proper rod and gear in a sportsmanlike way *is* fun. All round our Irish coast there are plenty of places which at present are unexplored, and which teem with the finest sporting fish. Places like Ballycotton and Valentia are already famous the world over—thanks to B.S.A.S. men, but there are plenty more. To my mind the greatest trouble is the boat question. In this you must be careful. You may chance on a place where only a currach can be got. They are marvellous boats, but I have never tackled a shark from one yet. If you cannot get a local boat that is seaworthy you must either purchase or hire one elsewhere. I bought mine from F. Browne, in Athlone, and I am independent. We can go out and come in when we like. In addition we have an "Evinrude" engine which saves us many a pull. One word of advice—get a real big roomy boat with plenty of beam (width) in her.

Now, as regards tackle—this all depends on what you are going to look for, and it is here that Holcombe's book will help. Again the question arises: Are you going to shore-fish or not? Personally I hate scrambling about on rocks—sometimes wet at that—with the prospect of slipping. Give me a dry, roomy boat.

When on our sea trips we are looking for big game fish, and our tackle must needs be strong and good. Take a word of warning and remember you will meet something ere long that will test it. Purchase the best you can afford. Good

rods are dear at first, but the strain of tackling heavy fish is enormous, and only the best can stand it. Again, I say with all the emphasis I can, buy only the best, and be sure it is the best, or the mortification of losing your prize fish will surely follow.

Now what do I mean by big game fish which one can easily get at any seaside place, provided that it is good fishing ground? We get skate, conger, pollock, coal fish, cod, ling, and, if lucky, one gets that champion of these seas—the halibut. The latter fish is what we are all after, and lucky is the man who gets his reward. I am unlucky, but I go on hoping.

When I was asked to write this article, my gentle persuader asked me to deal with sharks, as he said I had made a speciality of fishing for them. I cannot pose as a specialist in this respect, but, truth to tell, I have a real hankering to get the British and Irish record Shark, and I have been very near doing so.

There are several varieties of these brutes to be found round our coast; some of them run up to near 4 cwt. They are always about but show up greatly when the herrings come round our shores. We have different varieties of dog-fish, tope, por-beagle, blue shark, and some others, including a real topper, the identity of which I cannot place. I brought my man with whom I fish into the museum in Dublin to spot for me this particular variety, and got a fearful drop when he said: "He's not here." But he will be if I have to supply it. This particular variety goes up to at least 12 or more feet in length. I have seen and hooked the biggest the locals ever saw, and lost him because the hook came back. To see one of these brutes lazily pass under your boat—to see him follow up a hooked fish to the very boat—to feel him take your bait, and once and for all to feel that awful power and weight on your rod—should be enough to make you a real game sea-angler for life. I hope it may. "And *when* you have got him, of what use is he," wrote Mr. Henning (who holds the rod record for halibut for Great Britain and Ireland) to me the other day: "No use." There I beg to differ. Skin him and get his skin cured. You have the makings of a lovely writing block—a lovely handbag that ladies will burden themselves with—the tops for a pair of shoes—and what else? You have had the fight of your life—you have felt what no pen but Zane Grey's could describe—you have caught the fish in home waters—you have spent your money locally and not in New Zealand, and you can fully appreciate how weak a creature you are until your brain and cunning get working. Don't be under any illusion. You are going to have reverses galore, but these will, I hope, stimulate you to do better. Give it a decent fair trial and I promise you that what I have written will come true.

As my purpose in penning the present article is hortative rather than narrative, I refrain from writing accounts of fights which I have had. I would, however, like to say that the work in an actual encounter is so strenuous that there is no room left for exaggeration in subsequent narrative; the piscatorial *granum salis* is non-applicable in the case of the sea-fishing raconteur. And now to details of tackle for the big fish—and bait.

Rod.—Here the would-be angler had best consider cost. Rods, as used, are made in two ways. The first is split cane and the second greenheart or hickory.

If you can afford it, take a good split cane every time by a maker of good repute. There are many split cane rods on the market which are simply a fake and a delusion. Mr. Henning has improved on his pattern as made by Messrs. Hardy, and he knows what a rod should be. I personally like a cane rod built on the American plan—a long top to fit into a short butt. Seven feet is adequately long. The rod should be up to its work and be fitted with agate or porcelain rings. See that your winch fitting will accommodate the big reel. The modern way to fish is reel upwards, and it is the safest way.

Reel.—This should be capable of holding at least 200 yards of heavy cutty hunk line. It can be either of wood or (better) metal. Wooden reels are cheaper but do *not* stand up to the hard work. For shark you require a reel with a braking arrangement. Messrs. Hardy's patterns of a 6 in. Sea Silex, or 6 in. Fortuna are excellent.

Your line should be of flax. I use cutty hunk of 24 thread, that is, 48 lbs. breaking-strain. The dark green variety is best. Get it fully strong, and look after it.

Traces.—The "Ballycotton" method of using a trace is the best. Get some phosphor bronze wire (size 15 I use). Cut it into lengths of 16 in. Leave two inches at each end to make your eyes. When completed, the lengths are 12 in. each, and in between every 2nd or 3rd link you can put a brass swivel (beware of steel). Get someone to solder the twisted wire ends of *all* your swivels. I use the big "Alma" swivels, and this year I am using traces made of Messrs. Hardy's fine "sildur" wire. Each trace should be a about 8 or 9 feet long. You must, above all things, always beware of a shark's tail. It will cut any line to pieces in no time when the fight is on. Put your lead hanging by fine wire about 2 feet from your bait, attached to a lower swivel. If it gets caught up on the bottom a pull will break the wire and you only lose a lead. If you use "Sildur" wire, cut it into two lengths of 4 feet—a swivel at each end and one in the middle, on which your lead hangs.

Hooks.—A vexed question. Personally I use a 14/0 eyed hand-forged O'Shaughnessy. I attach a foot length of phosphor bronze (to be got from Messrs. Ormiston, 69 Clerkenwell Road, London) to the hook and to lower swivel. This gives the shark something to swallow before he meets a swivel. The hooks cost 1s. each. Give them a touch with a fine file every now and then. The wire costs 5s. for 2 lbs.

I do not want any reader to think I am ramming Hardy's wares down their throats (this treatment being reserved for the shark), but I want you to understand that *all* your gear, no matter from whom you buy it, must be of unblemished quality.

For bait use the freshest bait you can get. Mackerel or herring, or half and half, as Mr. Henning advises is good. I put up a whole mackerel or herring. You can simply hitch your bait on in an ordinary way or you can thread your foot of wire in at bait's mouth and out at vent, and if you like, thread another hook in at the shoulder leaving the hook sticking well out on opposite side to the hook in mouth.

Now when a shark takes your bait, and this can happen on the top, mid-water, or on the bottom, do not strike. Give him line, do not check him, but let him mouth the bait and let him travel until he has taken 100 feet of line (you have previously marked the line with a piece of worsted) from your reel. Now put on your brake and hit him for all you are worth. Give it to him *hard*. Text books tell you he will go off at a terrible rush. This is not my experience. He just goes away like the "Mallow goods" train! He may be up to 3 cwt. or so, and you must work hard. I use a harness from my shoulders to the rod, and you must wear a leathern belt with a cup-like piece to protect your groin. Keep him going—do not let him rest, and as soon as you can manage, get a bullet into his eye, or spear him in the gills. This will let him bleed to death. Then try and get a rope over his tail and noose him and tow him ashore. All very easy talk! Measure his length between verticals, take his girth and any other particulars, such as weight, and send the record to Mr. Holecombe. If he is one of the big grey variety, such as we meet in Achill, and if he is a good specimen, send him to the National Museum in Dublin, in case I have not anticipated you.

You will meet the varieties of shark all along the western coast, and the further north you keep the better the chance. He roams in any depth of water, as low as 3 feet even, and if herring or mackerel are about be well assured he is there also.

If any reader wishes for further information by way of fuller details or hints, I will be very pleased to give it to him, or if any aspirant wants a copy of a trace, etc., let him ask and I will lend one. Remember I am a novice, but I will be pleased to direct the neophyte. And now I wish you all "Tight lines!"

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COMPULSORY VOCATIONAL TRAINING?

By COMMDET L. EGAN, General Staff.

ONE of the most serious drawbacks of a professional army is the fact that, during peace-time at least, it never maintains the same close contact with the people as is found in countries where compulsory service gives the vast majority of the population a personal interest in a force of which practically every able-bodied man under forty-five considers himself an integral part. The traditional attitude of the British public towards the professional soldier is aptly stressed by Kipling in one of his most widely-quoted poems. This attitude is not peculiarly British. In every country the professional soldier is regarded more or less as a parasite in peace-time, just as he is hailed as a hero during war. As long as there is an immediate prospect of his being converted into cannon fodder a soldier's popularity is unlimited. In a manner of speaking, the only popular peace-time soldiers are dead ones.

While serving soldiers are not unduly worried by the short memory of the average citizen, the ex-soldier generally has to face a prejudice which is the logical corollary of the popular attitude to the serving soldier. There seems to be a widespread belief that, in the course of their military service, soldiers acquire a double dose of original sin which renders them useless for civil employment. That is very unjust. The average soldier is a very decent fellow. He is honest, obedient, punctual, and sober. These are very desirable qualifications for any respectable employment. Admittedly, all soldiers do not possess them. Neither, for that matter, do all policemen, postmen, nor politicians.

The kernal of the problem would seem to be that, for the most part, military service does not embrace any training which a civilian employer might regard as an asset. The technical branches of the Service, such as Transport, Engineers, and Signals, do provide training which may be turned to account in civil life. Army drivers, mechanics, engineers and telegraphists generally have good prospects of civil employment. The unfortunate infantryman—the Cinderella of the military profession—is lucky if he gets out of the army with any more than a good character and the regulation “Martin Henrys.”

It stands to reason, therefore, that if a soldier's training includes instruction which fits him for civil employment his chances of a permanent place in the Labour Exchange queue are considerably diminished. This has long been recognised in England, where the military authorities have resorted to a system of vocational training which is, at best, only a very small contribution to the solution of the national problem of unemployment. For Britain is not merely swamped with unemployed, but with unemployed the vast majority of whom are skilled workmen for whom the prospects of employment are very remote.

Our position is totally different. Apart from those pessimistic death-watches who regularly tick their doleful prophecies of national and economic disaster, there is every reason to believe in the future prosperity of the State. Our indus-

trial resources have hardly been tapped: we have only begun to realise the potential value of our agriculture. In both spheres there is practically unlimited room for development and, consequently, for employment. But this does not mean that there will be work for all. It does mean that there will be work for the skilled man. The day of the unskilled worker is passing, even in agriculture.

What has all this to do with the ex-soldier? A great deal, perhaps. Most military experts would insist, I am sure, that one of the main functions of military training is to turn out good soldiers. At the risk of being termed an iconoclast, I believe that it is equally important to turn out efficient soldiers who will also be useful citizens. The officer who can quote Clausewitz *ad lib*, or the N.C.O. or man who, while blindfolded, can assemble a Lewis Gun, will find these qualifications of little use when the harness is unbuckled and a civil job is a matter of urgency.

The average infantry soldier who enlists about the age of nineteen spends two, three, or more years learning to fight battles that may never materialise, and forgetting whatever training he previously possessed for the inexorable battle for existence which recommences the moment he is discharged. No matter what his motive for enlistment, be it unemployment, a taste for army life, or mere mental aberration, the grim fact remains that the conclusion of his period of service finds him, at best, in the same position from the employment standpoint as before his enlistment.

Many of our citizens—and most of our politicians—who know little and care less about the problem of our national defence, regard the army as a national liability, an unnecessary burden which must be gradually reduced until it ceases to exist. The pity of it is that the need of a comprehensive national defence policy and the means to make it effective cannot be successfully demonstrated until some international complication finds us without either. “Pater Familias,” and “Pro Bono Publico” are not concerned about such an eventuality. A visible concrete return for any given expenditure is the only argument that appeals to them.

Let them have it. Why not go one better than our British neighbours and have compulsory vocational training in the army? Ridiculous? Impossible? Not at all. Without any conscious effort we are already turning out competent motor drivers, mechanics, painters, carpenters, telegraphists, fitters, and numerous other tradesmen who have either actually acquired their training in the Army, or have added considerably to any previous experience they may have had. In the technical branches, like Transport, Signals, Engineers, and Air Force, to which practically all these skilled men belong, the training syllabus could easily be widened to cover essential phases of any particular trade which can be conveniently catered for. No system of vocational training that we could undertake would cover every trade. It stands to reason that we must confine our efforts to trades or occupations which can be harmonised with military training. Obviously, such trades as printing, coal-mining, or watch-making could not be dealt with.

The non-technical branches of the service would seem, at first sight, to present a difficulty. Take the infantry, for example. It would probably be true to say

that eighty per cent. of the infantry are drawn from the agricultural classes. Their tastes would naturally lean towards occupations allied with agriculture. How can we cater for them? There seems to be no serious reason why farms could not be acquired in close proximity to each provincial military headquarters, and rapidly converted into training centres where serving soldiers could be made familiar with up-to-date, scientific methods of agriculture. The initial outlay would be relatively small: the question of labour expenses would not arise. The Department of Agriculture might reasonably be expected to furnish expert instruction *gratis*; for it would be difficult to find a more feasible method of spreading the gospel of agricultural progress than through the farmers and agricultural workers who come to the army from every county in Ireland.

Few people will deny that technical education, especially in relation to agriculture, is one of the greatest needs of our time. The Irish people, naturally conservative, are slow to welcome innovations or assimilate new ideas. The great bulk of the farming community has to depend for its technical instruction on leaflets and itinerant instructors. Neither of these mediums carries the same weight as the assurance of a son, a brother, or a trusted employee who would have an intimate, personal interest in profiting by the knowledge he had gained during his army service.

It is impossible in the course of a short article to touch on all the possibilities of compulsory vocational training. From the army point of view its development depends on so many things, such as a stabilised army organisation, permanent regular strength, and length of service term, that it would be useless to discuss details at present. Again, in order for it to succeed, the scheme would require the closest co-operation of all departments of State, notably the Departments of Education, Industry and Commerce, Agriculture, and Finance.

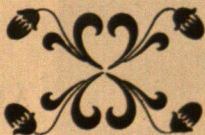
Even as a small step towards the solution of the problem of post-National School education, the idea should have attractions for the Department of Education. One of the biggest problems facing the Department of Industry and Commerce is that of rapidly converting public opinion to the advantages of electricity. Would not an army committed to compulsory vocational training be an excellent medium for providing propagandists? The Department of Agriculture has more to gain than any other department, because its activities bring it into closer contact with the masses of the people. Dairying, meat production, crop culture, poultry and egg production, drainage and reclamation, afforestation, and fruit culture are only a few of the principal features of our staple industry on the development of which our economic future mainly depends. Perhaps the chief essential of such a development will be the rapid extension of co-operative methods to production, selling and purchasing. Nobody is in a better position than a soldier to appreciate the value of co-operation, which is one of the basic principles of military organisation. Would not soldiers trained on the suggested model farms be a very useful reserve to that small but efficient body of students who graduate from institutions like the Albert Agricultural College. Undoubtedly, the soldier students would not receive anything like the same amount of technical training as the college men. It may even be urged that the little knowledge gained would be dangerous. It would be preferable to ignorance.

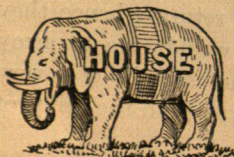
To many military minds this suggested co-mingling of the arts of peace and war will appear heretical. It will doubtlessly be argued that the ultimate result will be bad soldiers and worse tradesmen. But even a confirmed militarist must admit that any experiment which promises to make army service for the ordinary soldier something more than a temporary respite between the two periods of unemployment, something that impels the soldier to look forward to his discharge with hope rather than despair, is, at least, worthy of a trial.

The suggested experiment should have no terrors for the progressive layman who can convert educational progress into terms of national wealth. For, after all, educational progress does mean something more than the speeding-up of the mass-production of doctors, lawyers and secondary teachers, or the mere ability to compose Greek verse or unfold the mysteries of the differential calculus. Even the unprogressive layman, who can see no justification for military expenditure, can hardly condemn any scheme which suggests a compromise. And if the scheme should prove a success he would hasten to give it his benediction.

There are many people, not a few of them military men, who will contend that it will be impossible to cater for recruits on a vocational basis: that too many will want to join the technical corps, and will shrink from joining the infantry. Why worry? Select the most promising and let the remainder return whence they came. The additional attraction which vocational training would give to army service would always ensure not merely plenty of recruits, but recruits of a very high type. It would completely eliminate the undesirable type from the army of the future.

Every State department, except Defence, every State service, except the Army, has some concrete contribution to make to the material progress of the nation. Must we continue to be merely a contingent asset? If we are prepared to train men to work for the country as well as fight for it we will at least have contributed our share to the common effort.





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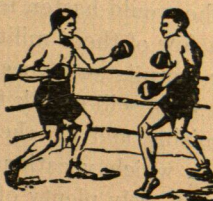
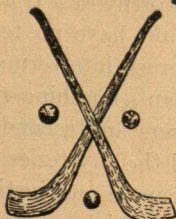
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SPORTING NOTES.

IMPRESSIONS OF AONACH TAILTEANN.

By COMDT. C. McALISTER.

Athletics.

If the Games, as they are popularly styled, have done nothing else, they have provided us with an opportunity of seeing and, we hope, of copying the methods of some of the world's best athletes. No doubt it was discouraging to see how very mediocre our champions were, even in the much vaunted field events, but, after all, Rome was not built in a day, and the fact that we produced at least one world-beater, who materialised from apparently nowhere, was indeed very comforting. Quite enough has already been said about Dr. O'Callaghan's splendid achievement at Amsterdam, and the subsequent confirmation of his form at Croke Park, and I will do no more than thank him sincerely for saving our faces.

It was a rude shock to see our half mile record not only beaten, but made to look second class, on the very first day. Most people, indeed, were left wondering how on earth Edwards could not secure a place in the first three in the Olympic 800 metres when his time here was given as only 2/5th of a second outside the world record. At any rate, most of those present will never forget his superb running, his stride, and his magnificent finish. This was undoubtedly one of the most remarkable races that was ever run in the country. A further comparison of the Aonach Tailtean with the Olympiad reveals the extraordinary fact that at the former the winner reached 6 ft. 4 ins. in the running high jump, while something rather less than that sufficed to win at Amsterdam. And that Osborne actually did this height there is no doubt, the lath being measured at three separate points before he jumped. And yet Osborne could not get a place in the first three at the Amsterdam competition.

Two events hitherto only infrequently included in our athletic programmes bid fair to become very popular here. They are the pole vault and the javelin. In the former the native record was beaten by almost a foot in a fine vault of 13 feet, and in the latter by no less than 31 feet in a throw of 205 feet. It would appear that quite a lot depends on the speed attained in the run up in both events. In the javelin throw it was amazing to see a trajectory similar to that of a bullet from a service-rifle. By some extraordinary method of propulsion the javelin is kept low and flat for over half the throw, when it rises in a wide parabola which must add many feet to the throw. Watching Pilling, the winner of the event, and Lay, who was also better than 200 feet, it seemed that the throw was as much from the shoulder as from the arm, the thrower falling forward in his effort to get the weight of the shoulder and body behind the effort. In the pole vault we had for the first time a special box in which the pole rested during the jump. This receptacle, which can be much more easily located than the old "hole in the ground," gave the competitors a better chance, and there seems to be no reason why it should not always be employed.

I think it was in the field events principally that the need for the employment

of qualified coaches was mostly felt. It isn't that we haven't the material to compete with the world's best (Dr. O'Callaghan has proved that we have), but we simply don't know how to use it. Neither have we the correct methods of preparation, and the simple truth is we have no one here to show us. The Irish people are passionately fond of athletics, and if we could produce a Nurmi or an Osborne he would be a greater national hero than Cuchulain. In most countries throughout the world the best material is generally found in the colleges and universities, the governing bodies of which employ first-class coaches to exploit it. The selection of this official is made with as much care as would be employed in the appointment of a Professor. In America boys are sent to the establishments with the best sporting record. Members of an overseas team, still at High School, told me that they did not intend to proceed to certain universities as these institutions attach more importance to a man's scholastic development than to his athletic achievements.

While this is stretching the point a little too far, it shows the seriousness with which other people take their athletics. It should not, however, be too much to ask that a little more sympathetic consideration be given to the question of the appointment of a regular coach at our leading educational establishments.

Swimming.

The Swimming events provided a really wonderful spectacle, but, as in athletics, only served to show how backward we are in our methods. Not all the visitors were Olympic winners, but even the worst of them was more than a match for our best. Whether the venue was more suitable or whether this branch of sport has vastly improved since 1924 the fact remains that the performances were much superior to those of the previous Aonach Tailtean. We were inclined to regard the times and performances of Charlton and his brother Australians as the "ne plus ultra" of aquatic achievement. In almost every event the previous results appeared mediocre. Here, as elsewhere, in sport, the need for someone to show us how to do it was felt. Even when we allow for the fact that neither the climate nor the water in Ireland is conducive to fast times we must admit that we are still very far behind, but in justice to our native representatives it must be said that most of our visitors complained of the cold during a spell of weather when the water was, for Ireland, really at its best. It is more than possible that if some of the foreigners lived and trained in Ireland they would find these fast times not so easy of accomplishment.

Boxing.

We had somewhat more interest in the boxing than in the other branches of the Games, since some of our own men were engaged. They did not, unfortunately, emerge victoriously, but O'Shea in particular created a very good impression, and his style and promise were warmly commented on by the critics. It is interesting to compare the progress of boxing with that of the other codes. From time to time our energetic Association has promoted international fixtures at which some of the world's best amateurs competed, and the lessons learned by our boxers have been such that we can hold our heads high in any competition. Where, as I have said, the need is elsewhere felt for the employment of

coaches this want is met by frequent international tourneys at which we are all the time learning.

We unquestionably have men capable of securing world honours, that is, with a little more experience. In the Army boxing has always been popular, and in 1924 we supplied practically the whole Irish Olympic team. We will be pardoned, I am sure, for taking some credit for the great revival in Irish boxing.



[*"An t-Oglach"* Photo.]

The Irish Team. Winners of the International Military Jumping Competition, 1928. Photo shows Col. M. Hogan in centre with replica of the Agha Khan Cup, Capt. C. B. Hearty (No. 12) on "*An Craobh Ruadh*," Capt. D. Corry (No. 10) on "*Finghin*," and Capt. G. O'Dwyer (No. 11) on "*Cuchulain*." On the left is Sergt. Dunne.

The great bone of contention in international events has always been the judging and refereeing, and even the officials in Paris in 1924 left much to be desired. However incompetent they were they might be regarded as authorities on the art by comparison with the Amsterdam officials. To use the expression of one of the Irish team, you required to "kill your opponent before you could hope for the verdict." We will hope for something better at Los Angeles. At any rate we can't get any worse.

International Military Jumping.

In this issue we include a photograph of the Irish team which was successful in the recent International Military Jumping Competitions at Ballsbridge, and which is to represent Ireland at Biarritz in October. We hope that they will not be less successful there than they were at home.

REVIEWS.

CANADIAN DEFENCE QUARTERLY, Vol. v., No. 4.

This issue completes Volume v., with a maintenance of the high standards characteristic of this Journal. A useful index to the complete Volume is furnished as a supplement.

"The First French Advance into Alsace, 7th-11th August, 1914," a paper submitted by Captain K. C. Burness, M.C., P.P.C.L.I., is the result of a study undertaken by this officer and three named colleagues, carried out in a thorough manner and presented in readable form with a map which, notwithstanding the scale, 1:250,000, is quite useful and adequate to the text.

Mechanisation is briefly canvassed by Major L. C. Goodeve, D.S.O., R.C.A., who concludes that "It seems almost as if a balance must be struck between *needing mechanisation to keep pace with modern conditions and needing the balance, the experience, and the security which the older arms of the Service can bring.*"

Recent M.T. trials, as described by Captain Duckett, attached R.C.A.S.C., indicate that the Canadian Authorities have something in common with the man from Missouri. Vehicles are certainly given gruelling tests, and even if designers and manufacturers find them heartbreaking, it will eventually be all to the good.

An article on Fleet Aircraft touches at many points on considerations by which this country is also affected, and is informative and interesting. While the article on Functions of Destroyers is not to us of such immediate interest it, however, suggests that we are not alone in including in our forces personnel who violently disagree with existing methods of procedure. "That these objects can now be considered susceptible of radical alteration suggests the uncertainty and confusion that pervades modern naval policy, which first designs itself a tool and then searches for the best method of employing it," has the ring of genuine conviction and the uncompromising provocativeness of the truth-seeker untrammelled by considerations of expediency.

"A Squadron on its Own," by Major H. Strachan, V.C., M.C., 19th Alberta Dragoons, will appeal to the cavalry enthusiast, and as an indication of the things which can and do happen in war, will appeal to all arms.

There are several historical and biographical articles and notes, and the whole is topped off by a little gem by W. Boss entitled "A Crusader's Funeral," in which our own tradition of "Service" is stressed, the fickle memory of humanity relieved from danger is accepted, and the action of the Government which refuses to forget is appreciated; and which closes on a note of appeal to those concerned to secure in their own self-reliant way that they be worthy of the traditions they inherit.

P.M.

DEFENCE LITERATURE.

NAVIES AND NATIONS. A REVIEW OF NAVAL DEVELOPMENTS SINCE THE GREAT WAR. Hector C. Bywater. Constable, London.

NATIONAL POLICY AND NAVAL STRENGTH AND OTHER ESSAYS. Vice-Admiral Sir H. W. Richmond, K.C.B. (Commandant, Imperial Defence College). Longmans, London.

WILL CIVILISATION CRASH. Lt.-Commander J. M. Kenworthy, M.P. Ernest Benn, London.

IN the Saorstat there does not exist, and there will not exist for many years, a literature dealing with the problem of National Defence. Such a literature can come into being only as the result of continuous and constructive study and thought on the part of officers and of other persons who may make a special study of Defence Problems. In the meantime considerable use will have to be made of the literature of other states. In fact, even if a very complete literature dealing with defence problems in the Saorstat did exist it would still be necessary for many reasons to study the Defence Problems and Policies of other states. It is not proposed to discuss such reasons in these notes, but attention will be directed to features in books published within recent years which, it is suggested, are worthy of study by all officers and in fact by all citizens of the Saorstat. It may be objected* that these books deal principally with naval matters, but the island position of the Saorstat ensures that it will be only directly and seriously affected by Naval struggles. The three works noted were not particularly selected for this purpose.

"Navies and Nations" is unquestionably what its sub-title describes it "A Review of Naval Developments since the Great War." Into 300 pp. is compressed an amount of naval information described in non-technical language. It is not within the competence of the present writer to criticise the accuracy of the matter in the book; this has already been done by reviewers in both Great Britain and the United States. In all cases the reviewer's remarks were of a most favourable nature. In fact, some of them suggested that the work should be adopted into the select circle of standard naval publications. In it will be found summaries of the Naval questions under discussion at present. Incidentally, some of the questions deal with the main factors influencing the relations of Great Britain and the United States. Italy's reason for desiring to secure unquestioned control of the Adriatic, and her consequent unpleasant relations with Jugo-Slavia are explained. The points at which Italian Naval Policy tends to cut across French plans for the control of a sphere of the Mediterranean, with the consequent friction which was so much in evidence a year or two ago, is also described. Chapters deal with the United States, French and Japanese Navies and their problems, with Empire Defence, Imperial Strategy, Britain and America, etc. The chapter on Empire Defence explains the position of Canada, Australia, New Zea-

*These notes are very particularly directed to the attention of those who hold that books dealing with naval and other than purely technical military matters should not be included in a Department of Defence Reference Library.

land and South Africa. In view of the fact that our future defence by sea, although not at the moment a live problem, is not a settled issue, this chapter has a peculiar interest for us. A note in it is devoted to the Irish Free State, and in view of its importance it is quoted in full:

"That an Irish Fleet unit may eventually come into being is not beyond the bounds of possibility. An article of the Irish Treaty empowers the Free State Government to construct and maintain such vessels as may be required for revenue and fishery protection service, but for a period of five years from the date of the Treaty the coastal defence of Ireland was to be undertaken by the Imperial forces. At the end of that period the situation was to be reviewed at a conference of British and Irish Government representatives, with a view to Ireland's taking over a share of her own coastal defence. It was further provided that a settlement should at the same time be reached as to the future of Spike Island, off the coast of Cork, and Lough Swilly, in Donegal. It is not known at the time of writing what decisions, if any, have been come to on these questions. Clearly, however, the Irish Free State is not yet financially capable of supporting a naval unit of any consequence, nor is the matter one of pressing importance.

Of far greater moment is the future status of such harbours as Queenstown, Lough Swilly, and Berehaven. The free use of these and other Irish harbours for British naval purposes would be absolutely essential in case of war with a Great Power. In the British Government's proposals for Irish peace, in August, 1920, the following passage occurred: "Great Britain lives by sea-borne food; her communications depend upon the freedom of the great sea routes. Ireland lies at Britain's side across the sea-ways north and south that link her with the sister nations of the Empire, the markets of the world, and the vital sources of her food supply. In recognition of this fact, which Nature has imposed and no statesman can change, it is essential that the Royal Navy alone should control the seas around Ireland and Great Britain." Such control, to be effective, would involve the unrestricted use of Irish harbours in war-time by vessels of the Royal Navy. As the settlement of this question necessarily depends on the future political relations of the two countries it need not be pursued here. It should, however, be pointed out that the development of aircraft may compel us, in the event of war with a major Continental Power, to transfer the main fleet to a base on the Irish Coast where it would lie beyond reach of air attack. This possibility renders it the more desirable that a clear understanding should be reached as to the part which Irish Free State harbours are to play in future naval strategy."

The importance of the relation of Ireland as a whole and in particular of some of our harbours to British (and world) trade-routes, and to the whole question of the Command of the Sea in the Northern Atlantic, is scarcely recognised in the Saorstát. In view of the undoubted far-reaching effects that a Naval War would have on the Saorstát, it is important that the state should consider "what it is going to do about it" when the circumstances described arise (as undoubtedly they will arise some day). Mr. Bywater states that these matters depend on political relations, and it should be borne in mind that a National Defence Policy

consists of deciding on and taking measures to implement a plan for dealing with these problems and not merely in deciding that the State can afford to spend a certain amount annually on defence and in periodically decreasing that amount.

In the last few sentences in which Mr. Bywater suggests that the development of air-craft may have a special influence on the importance of the Irish Coast to Great Britain, he raises an entirely new aspect of this question. That is sufficient to justify a lengthy quotation from the chapter on "Fleets and Policies," in which he summarises his views as to the possible effect of aircraft on British Naval Bases and Naval activities in British waters.

"Aviation, however, has not been an unmixed blessing for Great Britain. The precise degree to which it has already effected her naval power cannot yet be determined, but that the new weapon will have an adverse influence on that power admits of no doubt. As aeroplanes increase in range and armament, so must the British Navy's freedom of movement, alike in home waters and in narrow seas abroad, inevitably suffer constraint. During the last war, when aircraft were comparatively limited in range and offensive power, the British east coast bases of Chatham, Sheerness and Dover were frequently subjected to heavy bombardment from the air. Had the enemy possessed numerous aircraft of present-day types, these bases would probably have become untenable. Of the two principal home dockyards, Portsmouth is 72 miles and Devonport 110 miles from the French Coast. Both, therefore, lie within easy range of air attack. Nor is Rosyth beyond the radius of modern machine-flying from Germany. Many naval officers openly question the possibility of keeping a fleet in the North Sea or the Channel in the event of war with a Continental Power strong in aircraft. If their apprehensions are well-founded, it is evident that the position of a British Fleet in the Mediterranean in war-time would be still more precarious.

"It is too early to judge whether air-power is destined to negative the principles of naval strategy as now understood, but that they will have to be readjusted to meet the new conditions which have arisen is certain. It seems clear that any nation possessing a weak navy but a strong air force will be able to dominate a wide section of the surrounding sea, and hence to afford reasonable security to marine routes within the sphere of its air control. This is a matter of capital importance to countries such as France and Italy, each of which has comparatively proximate sources of supply in case of emergency, the former in Africa and the latter in the Near East. But to Britain herself, separate as she is from indispensable markets by the width of oceans, the limited sea command which aircraft are capable of exercising offers no marked advantage. Less than one-third of the wheat annually consumed in Great Britain is home-grown. Of the remaining two-thirds the bulk is imported from five oversea countries—the United States, Canada, South America, India, and Australasia, the average distance travelled by each consignment being about 6,000 miles."

Britain has only fought two naval wars in the North Sea, while she has fought many in the Atlantic and Mediterranean. During all her wars in the Atlantic and

Mediterranean, at least one of her main fleets was based in the Channel. The suggestion has already been made that this main fleet might in future control and defend the Channel and its approaches from an anchorage or base on the Irish Coast, such as Berehaven, and Mr. Bywater's view on the influence of aircraft is certainly an argument in support of that contention.

Enough has, however, been quoted to indicate that the perusal of "Navies and Nations" will repay any officer who wishes to appreciate the trend of Naval Affairs and our own Military and Naval Situation. As our military and naval situation has (or at least should have) a large influence on our external and national policy the work should be also of value to those who deal with or are interested in these matters.

We shall confine our remarks on Admiral Richmond's Essays to the one dealing with National Policy and National Strength. In addition it should be at once pointed out that Ireland is not mentioned in this essay at all, and only once in the whole book. As, however, Clauses 6 and 7 and the Annexe to the Treaty have their *raison d'être* in the fact that, to quote the Admiral, "particular and immediate causes of widely differing characters—dynastic, religious or social—spring at the different times into the front of the stage, and furnish the immediate object of the statesman's care. But while these come and go, one basis of policy is so persistently recurrent that it seems to deserve a claim to permanency—"the maintenance of Naval Strength." Those who wish to consider the problems arising out of these clauses should read this essay. The essay or lecture deals with the question from two points of view. It discusses the measures taken to weaken possible rival navies which actually or potentially threatened British Sea Power, and those taken to prevent "the principal hostile states from seizing territory of naval importance." It is with that aspect of the question we in the Saorstát are directly concerned. Admiral Richmond's Essay indicates among other matters that for hundreds of years it was vital to British Sea Power that a "Military and Naval rival should not be able to obtain that immense additional strength that is represented by possession of such a base of operations as the Scheldt (Belgium or Holland) close to its heart." He discusses the effect of such possessions on British measures for guarding the country against invasion and securing its overseas trade. Cork Harbour, Berehaven, Lough Swilly, etc., bear much the same relation to Great Britain on one side as the Scheldt and other harbours and estuaries in Belgium and Holland on the other. Therefore, the one persistent basis of Policy—"the maintenance of Naval strength"—figures in the 1921 Treaty in Clauses 6 and 7.

The object of these notes is to direct attention to the interest such works may have for us, and to point out the interest taken in us by those who write on military, aerial and naval matters in other countries.

The following quotation from a review of Admiral Richmond's book in "The Fighting Forces" for July, 1928, serves this purpose admirably. It should be added that the review was written by Lt.-Col. F. E. Whitton, C.M.G., a rather well-known writer on military topics:—

"In two cases, at least, the ordinary man is apt to find himself in a position of helplessness owing to omissions in the book now under review. The first omission concerns Ireland. The ordinary man feels somehow that the grant of self-government to that country, and the erection of the Irish Free State, must in some way effect the Naval situation of Great Britain. He turns for information and guidance to these essays and particularly to that entitled 'Naval Policy and Naval Strength.' He will be disappointed in his search, and that feeling will certainly not be diminished on finding that there is no reference whatever to Ireland in the index. The difficulty which confronts the ordinary man is this. In the treaty now in force between Great Britain and the Irish Free State the first article expressly lays down that the latter shall have 'the same constitutional status, in the community of nations known as the British Empire, as Canada, Australia, New Zealand and South Africa.' The constitution of this community of nations is admittedly vague. But there is a consensus of juridical opinion to the effect that, for the dominions, commonwealth and union named above, continuance in such community is optional. Such is quite undoubtedly the fixed opinion of the inhabitants of those countries. With no less certainty it may be stated that any withdrawal could not and would not be prevented by force of arms used by this country. Is such withdrawal open to the Irish Free State? And, if not, is the exception in her case due to the propinquity of her coastline which renders the possibility of its employment as enemy submarine bases and aircraft depots an exceedingly serious matter for this country? The subject, we admit, is an exceedingly delicate one to handle, but nothing whatever is gained by Englishmen or Irishmen in refusing to look facts in the face. We should have welcomed a reference, even if a guarded one—that given on page 139 is a mere pious aphorism—to this very important matter from the pen of Admiral Richmond, and candidly we think that this subject is one more likely to prove of value to the ordinary man than such academic issues as the effect of sea-power in the War of the Austrian Succession."

Apart from the constitutional question of withdrawal, the Saorstát will in time of war be materially affected by the factors to which Col. Whitton refers. Now, and not when the emergency comes, is the time to decide what the Saorstát attitude to these factors will be, and it must be agreed that nothing is gained by trying to ignore these problems.

Commander Kenworthy's book, like Admiral Richmond's, contains only one side reference to Ireland in which it is stated that the granting of self-government to Ireland removed a great obstacle to Anglo-American friendship and thereby eradicated one danger spot to world-peace. His work is of a different type from those of Mr. Bywater and Admiral Richmond, and contains an introduction by Mr. H. G. Wells. At the moment it is of peculiar interest in so far that it was one of the works in which the "outlawry of war" was early advocated. Commander Kenworthy's support of this scheme, and his other activities in support of Anglo-American friendship was probably one of the considerations influencing Mr. Kellogg in the negotiation of his Treaty. In view of recent developments Mr. Wells' opinion of the proposed outlawry in the introduction is interesting. "You

are to 'outlaw' war. You are just to make a treaty between the Powers concerned, say as much—and there you are! You leave these powers completely untrammelled by their declaration. Indeed you leave everything as it was before. But you say it." Both Mr. Wells and Commander Kenworthy have much to say that is interesting, some things with which we disagree, and even some things which we do not believe; but taken all round the book is of both interest and value. The interesting chapters from our point of view in the book are "Why an Anglo-American War is Possible" and "The United States versus the British Empire." Commander Kenworthy does not state that Anglo-American War is probable (only possible), but anyone who reads the daily papers intelligently is aware that greater or lesser misunderstanding exists between Great Britain and the United States on several questions mainly connected with Naval matters. The fact that this disagreement exists is giving public men in both Britain and the United States furiously to think, for if these disagreements and misunderstandings are not removed, war between the two countries would leave the possible and enter the probable stage. Such a state of affairs would of course be tragic, not merely for Britain and the United States, but for the World generally, even if we are not prepared to believe that a war between the two countries would cause Civilisation to Crash. The feature which needs stressing from the Saorstát point of view is the fact that under such circumstances we would be directly affected, in ways even more so than either Britain or the United States. Quite an interesting chapter, in fact, a nice book, could be written on the position of Ireland as affected by the course of "The United States versus Great Britain" conflict. We will not attempt to detail our position in such an event, but it would be mainly affected by two factors—the large Irish population in the States, and our geographical position. The effects of such an eventuality on the relations between the Irish in Ireland and the Irish population in America is too large a question for discussion here. Commander Kenworthy in this chapter does state that one of the principal features of any such conflict would be a war by each combatant on the trade and shipping of the other. Admiral Sims in his book (*The Victory at Sea*) indicates very definitely the points at which attacks on British shipping could be most effectively conducted. He writes: "To cut the communications of Great Britain (therefore, the submarines do not have to patrol two or three thousand miles of sea-coast as would be necessary in the case of the United States), they merely need to hove around the extremely restricted waters west and south of Ireland." If such a war should develop, our coastline would, in the circumstances which Commander Kenworthy postulates, become one of the main areas of conflict. The moral is that everyone interested in Irish affairs should be equally interested in the relations of Britain and the United States. Consideration of this can be seriously recommended to the type of journalist mentality (not uncommon in this country) which avails of every misunderstanding between Britain and America to indulge in a little twisting of the British lion's tail. It is well to realise that these misunderstandings could develop into a conflict in which Ireland would be a combatant "no man's land" between the fire of two major combatants.

ARTILLERY TO-DAY AND TO-MORROW. By Colonel H. Rowan-Robinson, C.M.G., D.S.O., R.A., p.s.c. Wm. Clowes & Sons, Ltd., London. 5s.

This compact little volume, well written and well turned out, is a valuable contribution to contemporary literature on a subject which is at present receiving very serious attention. It deals with the present position of artillery in the British Army, both in Europe and in India; and attempts to forecast its role when the process of mechanisation, of which the author is a whole-hearted supporter, develops sufficiently far to call for radical alterations in artillery tactics and technique.

A chapter devoted to the co-operation of infantry and artillery will be of interest to infantry officers who do not always understand or appreciate the artillery officer's attitude on this question. There are further chapters dealing with artillery in relation to tanks, the mechanisation of artillery, the control of artillery from the air, communications, the attack of aircraft by artillery, and the possibility of replacing heavy coast defence artillery by aircraft. The author's advocacy of actual artillery command from the air is of special interest.

It will be noted that Col. Rowan-Robinson does not expect that mechanisation will develop rapidly save in highly industrialised countries. He writes:

"No mention has hitherto been made of Dominion or Territorial Artillery. It is presumed, however, that they will follow the example of the regular army in mechanisation as far as lies within their powers. They will be dependent for progress mainly on mechanical advances in agricultural and commercial circles in their respective countries. We may, therefore, anticipate a development irregular as to rate and nature and varying in each country in accordance with conditions rather than with military requirements. In all probability the tractor will be found more in evidence than the tank or transporter, and there will thus be a reserve of field guns proper that will lessen any risk taken in reducing their numbers in the new mechanical army."

These remarks can certainly be accepted as being applicable to the Saorstát.

The reader's view of the book will depend largely on his personal attitude towards the question of mechanisation. But even should one totally disagree with the author's views on the whole question of "the mechanical army," the book is to be recommended as giving a well-written, if brief, summary of opinions and ideas that are already seriously influencing the organization and tactics of the British Army.

D. B.



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