An t-Óglác

THE OFFICIAL ORGAN OF THE IRISH VOLUNTEERS.

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WE MUST NOT FAIL.

The War of Independence goes vigorously on and the Army of the Irish Republic is keeping up its offensive with spirit and has secured some notable triumphs. Since the last issue of An tOglach went to press a number of successful engagements have been recorded in different parts of the country; and attempts at a counter-offensive on the part of the enemy have been for the most part conspicuously unsuccessful.

Having said so much by way of recognition of the good work done and the good Volunteer spirit shown in so many places, we desire to call attention to the other side of the picture. All Volunteers are not equally efficient, and even those who have proved their courage and efficiency in a marked manner may be all the better of a lecturing now and again. Self-satisfaction is a dangerous frame of mind for men engaged in dangerous and difficult work; and particularly dangerous to soldiers engaged in warfare with an enemy of enormous numerical strength, armament and resources.

We would therefore like to point out that all that has been acheived so far is small beside what still remains to be done. If bodies of Volunteers in some parts of Ireland have provided fine specimens of courage and efficiency, it should be remembered that such instances only represent the high-watermark of our Army and that there are many other parts of the country where the standard of efficiency is not anything like so high. It is true that our successes far exceed our failures; but the fact remains that there have been failures and *there should be none.*

No Volunteers should think to enjoy the reflected glory of others without bestirring themselves to deserve the same praise. Our successes have been due to good local organisation, sound discipline, well thought out plans and officers who use their intelligence and strive hard to make themselves fit for their post. If the local organisation, discipline of the men and capability of the officers were equally good everywhere hardly a single case of failure could occur.

In some cases failure was due to ill-considered plans based on inaccurate information and observation, which did not take into account all the possibilities of the situation and the obstacles to be encountered. In other cases miscarriage was due to lack of judgment or lack of capability and military knowledge on the part of officers, or lack of discipline and efficiency on the part of the men. This should not be. No responsible officer of Volunteers should undertake an operation against the enemy without carefully thought out plans, without having taken the utmost pains to acquire all information bearing on his subject and satisfied himself of the probability of success. Having decided on an undertaking, officers and men must go into it with their minds made up that they are going to succeed. There must be no half-hearted attempts, no failure to push home an advantage through lack of determination. We are not so strong in numbers and armament that we can afford to risk men and waste ammunition on futilities.

Some of the failures to take police barracks were excusable; some were inexcusable. There is not a barrack in the country that cannot be taken if proper methods are employed; but no fortified building was ever taken by firing rifle-shots at it from a distance. Volunteers who go out on such an attack must go out with their minds made up that they are going to win. In the lexicon of the Volunteers there must be no such word as fail.

The necessity of strict discipline cannot be too often emphasised. No military activities against the enemy should be undertaken by Volunteers without the authority of the responsible officer for the district. A number of cases of raiding the houses of private citizens for arms have recently been reported

in the newspapers. In the majority of cases the offenders were not Volunteers; but cases undoubtedly have arisen where so-called Volunteers have shown so little sense of discipline and such a curious failure to to grasp the Volunteer point of view as to engage in such undertakings without authority. It seems hardly possible that any Volunteer is unaware that the raiding of private houses is contrary to the express orders of Headquarters, sent out over two years ago and subsequently repeated. If any Volunteers are still ignorant on this point, the responsibility lies with the officer who failed to transmit these orders to them and to make their importance plain. We are not at war with our neighbours, but with the forces and officials of the English enemy, whether they wear the uniform of policeman or soldier, or the civilian attire of magistrate or spy.

INSTRUCTIONS ON EXPLOSIVES.

PART II.

On Gelignite. etc.

In the list of high explosives above, "nitro-glycerene" will be noticed. This is a chemical compound which explodes so violently that it is, as it were, "watered down" or subdued, by the addition of other stuffs forming an efficient, though not so violent, explosive. Many, then, such as dynamite (which is formed however from only nitro-glycerene and a stuff called kieselguhr) and gelignite, ballistite, blasting gelatine, etc. are formed by addition of such stuffs as wood-meal, nitre, etc. to nitro-glycerene.

Now this stuff, nitro-glycerene, demands careful attention. When nitro-glycerene (which remember is the main part of gelignite—the others are simply "stuffing") is cooled down to about 40° F., which would be the temperature—if not too high an estimate—of an ordinary winter's night, the nitro-glycerene *begins to freeze*. If it be kept for many nights in this way out in the open or if it be allowed to cool for even a short time on a frosty night, the nitro-glycerene *freezes*, and in doing so it separates from the other stuffs (with which it was so very closely mixed by the manufacturers) and it is foolish to think that any amount of thawing will make it go together again in so perfect a manner.

The important thing to do, then, in not to learn how to thaw frozen gelignite, which, after thawing can never be absolutely reliable, but *to prevent all possibility of its freezing*. The modern equivalent of "Keep your powder dry" is "*Keep your gelignite warm.*"

Frozen gelignite is usually insensitive to shock, and cannot be relied on to explode. Moreover, as many accidents reported annually by Inspectors of Mines, testify, it is very dangerous. Cutting it, breaking it or letting it drop on the ground may cause it immediately to explode.

To prevent freezing, gelignite should always be stored in a warm place—about 70° F.; if feasible, a fairly warm living-room would be ideal. It should be stored in wooden boxes, packed with straw. In cases of necessity, it might be risked out of doors for a night or two, if it is first very well packed in a box with plenty of sawdust, straw, cotton-wool or etc. which will keep out the cold for some time.

To thaw gelignite which has become frozen, one of the best plans is to get a pot of boiling water. Let it cool until the heat can just be borne by the hand. Then place firmly or hold in it a water-tight tin (cocoa tin, *e.g.*) containing the offending sticks until they become soft and pliable. The pot should of course be removed from flames etc. *A certain amount of risk always attaches to frozen gelignite, and it cannot be repeated too often that gelignite should not be allowed to freeze.*

Gelignite, on long keeping, sometimes deteriorates as do many of these high explosives (after say a year or so). Even though it is found to give a misfire or a 'dud,' it need not be discarded. Often, a stronger detonator (say a No. 7 or No. 8 where perhaps a No. 6 had been used) gives the desired effect.

The usual composition of the three standard "gelatinized" high explosives are as below:—

	Blasting gelatine	Gelatine dynamite	Gelignite
Nitroglycerene	91.5	74.5	60.5
Collodion cotton	8	5.5	4.5
Wood-meal		4	7
Nitre		15.5	27
Calcium carbonate	.2	.2	.2
Moisture	.3	.3	.8
	100	100	100

PART III.

Ammonals

This is a class of explosives, named after their two chief ingredients, ammonium nitrate and aluminium

Ammonal (as any one of them is called, a distinguishing letter being added to each) is an explosive of considerable power. Its velocity of detonation is about 12,000 feet per second.

The following are analyses of ammonals used in Austria :—

Ammonium nitrate	80.75	90	88	80
Aluminium	15	4	8	18
Charcoal (powdered)	4.26	6	4	2
	100	100	100	100

An ammonal used for blasting purposes has the following composition :—

Ammonium nitrate	93 – 95.5
Aluminium	2.5 – 3.5
Charcoal	2 – 3
Moisture	.1

In making such an explosive, the aluminium used should not be too fine. The ammonium nitrate must be dry, and, since it is a very hygroscopic substance (*i.e.* is capable of absorbing much moisture from the air) it should be packed up as required as soon as it is made. The density of ammonal, compared with water, should be about one, and usually a little more. (*i.e.* It is almost the same weight—bulk for bulk—as water.)

PART IV.

Other Explosives

For the manufacture of most explosives, comparatively expensive plant is necessary. Picric acid and others might be prepared provided the main ingredients are plentifully obtainable—viz. pure concentrated sulphuric acid and pure solid carbolic acid (or "phenol"). If nearly absolute alcohol, pure nitric acid and mercury can be obtained, mercury fulminate (for caps and detonators) could be prepared by competent men, but there are many cap compositions, the preparation of which is easy enough and the ingredients fairly accessible, *information* about which (as about the other preparations mentioned in this part) *can be had on application.*

There are also many explosives suggested, the efficacy of which would however have first to be tested by experiments. Of these is a non-hygroscopic explosive, composed as follows :—

Potassium chlorate, 65 ; Lampblack, 7.5 ; Benzol, (or benzene, not to be confused with benzine) 12.5 ; Sugar, 5 ; Syrup, (molasses or "golden syrup") 10.

Note. In all these prescriptions, the figures refer to parts by weight (proportionate parts) and may be measured in lbs., ozs., weights of pennies, or any other unit.

PART V.

Incendiary Compositions

Thermit. The following is sometimes given as a method of preparing thermit and using it. Iron oxide and *fine* aluminium powder are mixed. If the temperature of one part of this mass is raised by heating it with a match formed of magnesium wire which ends in a small ball of aluminium powder and barium peroxide, ignition extends changing the iron oxide to metallic iron with the formation of aluminium oxide and with the evolution of such heat as to melt the iron.

Now it seems a matter of some difficulty to get just the right kind of iron oxide ("smithy's scales"), so it is suggested instead to use manganese dioxide (a chemical which can be easily obtained) along with aluminium. The action which takes place is represented by chemists as :

$$\underbrace{3\ Mn\ O^2}_{261} + \underbrace{4\ Al}_{108} = 3Mn + 2\ Al_2O_3$$

from which we get that the proportions in which we should mix the two stuffs is as 261 : 108, or it may be taken as *five parts by weight of manganese dioxide to two parts by weight of aluminium powder.*

To ignite this mixture, another mixture is used, consisting of barium peroxide (75 parts by weight) and red phosphorus (25 parts by weight). This mixture, which must be mixed carefully, as heat is generated in mixing them, generates more than enough heat to ignite the thermit mixture and can itself be ignited in the ordinary way by a match or by a time fuse, dipping into it.

Other incendiary compositions and more adaptable than thermit for firing purposes—are known, but cannot be easily prepared, (*e.g.* liquid fire, etc.). There is one simple one which might be tried in a limited number of cases where time is not a pressing matter and where much easily inflammable matter is near. The weather or the place of use should also be fairly warm. It consists of a strong solution of yellow phosphorus in a liquid called carbon disulphide and should be kept carefully bottled in a cold place. (Such a liquid ought, however, be first experimented with.)

In the way of useful chemicals, the following are always of use and worth storing : pure concentrated nitric or sulphuric acids ; aluminium (powdered) ; ammonium nitrate ; red phosphorus ; nitre (potassium nitrate) ; chlorate of potash (potassium chlorate).

ALL WORK SHOULD BE CARRIED OUT AWAY FROM FLAMES OR INFLAMMABLE MATERIALS.

NOTES FROM HEADQUARTERS.

TALKS TO N.C.Os., III.

In an army it's the little things that count—every man does the right thing *more or less*. But the army that does it *more* always beats the one that does it *less*. It is this careful attention to detail that helps to form sound habits—and Discipline is just a sound habit and nothing more.

There are two ways in which you can act in order to form this habit of discipline and give a definite tone to the Republican Army—a matter-of-course way and a deliberate way. The matter-of-course way is to take it for granted that everybody knows the right thing to do and passes no remarks about it. For example, when walking with an officer walk on his left, when walking with a private have him walk on your left. Suppose you live some distance from the Headquarters of your Brigade and happen to be in the Headquarters town by accident report automatically, and inquire whether there is any despatch you could carry back. Nine times out of ten there won't be: the tenth time there may—and that extra early message may mean all the difference. Until you come to command a Brigade yourself you'll never realise what a blessing it is to find a good N.C.O. *when you want him*.

Then there's the deliberate way of forming the Discipline habit. There was once an ambitious lance-corporal who asked a sergeant what he should do—not exactly 'that he might have Life Everlasting,'—but for the general good of the service. The sergeant gave him three pointers: (*a*) Study the drill-book until you know it upside down, (*b*) Be as smart as a needle on parade, (*c*) Give any spare time you can manage to learning something extra—for instance, Signalling. Now, all that was very sound advice, and the army those two N.C.Os. represented was a good army; it has lost battles, but never yet a war. And mark the distinguishing features: it was strict about what it knew to require strictness, and for all that it was keen and open to learn where there was scope for that. Just you be the same.

GENERAL NOTES.

The Dublin Brigade are to be congratulated on a notable triumph, in the capture of the enemy mail-bags containing a large quantity of documents of the highest importance and value. The efforts of the enemy to recover the documents by raiding simultaneously a large number of suspected places throughout Dublin proved a ludicrous failure.

The *Constabulary Gazette* continues to supply interesting and amusing reading to Volunteers. As illustrations of the mentality and moral of the enemy police, some passages are illuminating. They are also instructive to Volunteers. One nervous correspondent asks: "What is the reason, notwithstanding the imminent danger we are in, that there are barracks to be found in lonely rural districts in Ireland with from twelve to fourteen windows in them, and not as much as a sandbag has been supplied, not even a substantial lock on the front or back door. I will leave the reader to form his own opinion, but I say it is outrageous." We agree. It is certainly a grave reflection on the local Volunteer Corps that such a state of affairs should be allowed to continue.

Our nervous enemy adds pathetically: "Picture two constables, out of a party of five, out of bed every second night and not knowing the moment that a bullet or bomb may come through one of the windows and send them to eternity. There would be some reason with their sitting up if when they did come, they (the police) were in a position to defend themselves and their barracks. But they are not. How could they when a shell a ton weight might be thrown into the dayroom, there being nothing to stop it except a pane of glass might do it." No doubt the correspondent's suggestions will be carefully considered by the proper authorities.

Another correspondent of the *Constabulary Gazette*, whose letter shows unusual intelligence and grasp of the situation, says: "No police barracks in Ireland can hold out for one hour against the forces of men and material that can be mobilised against it, without let or hindrance, in a few hours any night. Police, as a body, know little about placing a barrack in a state of defence from a military man's point of view." This is quite true. What is going to be done about it?

It is the duty of Brigade Commandants to see that AN tOGLACH is properly distributed among the battalions and companies under their command. It is also their duty to see that the subscriptions are promptly and regularly collected and to forward them to H.Q. The due number of copies of AN tOGLACH is forwarded fortnightly to each Brigade. Any exceptional delay in receiving them or failure to receive them should be at once reported to H.Q. and steps taken to discover who was responsible for the delay or non-delivery. Cases have occurred where responsible officers have been guilty of grave neglect of their duty in this matter. If the men in any locality do not get their copies of AN tOGLACH, it is not the fault of H.Q., but of some officer, messenger, or custodian in the Brigade area.

Truagh linn gan nios mó slighe againn don Ghaedhilg an bobhta so, ach beidh roinnt mhaith dhi ann gach coicíos feasta