

NOTES ON GRENADE WARFARE

Published @ 2017 Trieste Publishing Pty Ltd

ISBN 9780649321032

Notes on Grenade Warfare by Army War College

Except for use in any review, the reproduction or utilisation of this work in whole or in part in any form by any electronic, mechanical or other means, now known or hereafter invented, including xerography, photocopying and recording, or in any information storage or retrieval system, is forbidden without the permission of the publisher, Trieste Publishing Pty Ltd, PO Box 1576 Collingwood, Victoria 3066 Australia.

All rights reserved.

Edited by Trieste Publishing Pty Ltd.
Cover @ 2017

This book is sold subject to the condition that it shall not, by way of trade or otherwise, be lent, re-sold, hired out, or otherwise circulated without the publisher's prior consent in any form or binding or cover other than that in which it is published and without a similar condition including this condition being imposed on the subsequent purchaser.

www.triestepublishing.com

ARMY WAR COLLEGE

**NOTES ON
GRENADE
WARFARE**

TABLE OF CONTENTS.

	Page.
Introductory	7
Part I—Selection, training, and organization of grenadiers . . .	9
General remarks	9
Selection of grenadiers	10
Training of grenadiers	11
Individual instruction	11
Scope of individual instruction	13
Precautions in handling live grenades	13
General principles of detonating explosives	14
Method of making and using improvised grenades	14
Classification and mechanism of grenades ..	14
Mechanics of throwing	18
Construction and use of periscope	22
Physical instruction of grenadiers	22
Notes on throwing	22
Bayonet fighting	23
Barricades	24
Exercises in trenches	24
Instruction of expert grenadiers	24
Tests for appointment as grenadiers	25
Squad instruction	26
Organization of the squad	26
Duties of members of the squad	27
Squad exercises	28
Part II.—Tactical employment of hand grenades	29
Defensive	29
Defense of a trench by grenades	29
Offensive	30
General remarks	30
Advance in and defense of communication trenches	31
Assault of a trench	35
Cleaning up a trench	36
Sorties	37
General remarks	37
Preparation	38
Attack of a trench by sortie	38

TABLE OF CONTENTS.

	Page.
Part III—Mechanical methods of throwing grenades	41
Rifle grenades.....	41
Precautions.....	41
Tactical employment of rifle grenades.....	44
Gun grenades.....	45
Projecting apparatus for grenades.....	45
Organization.....	45
Tactical employment.....	48
Location of battery emplacements.....	48
Employment of fire.....	49
Part IV—Supply of grenades.....	51
Appendixes:	
A. Training fields.....	52
B. Protection against grenades.....	57
C. Suggested tactical problem.....	60
D. Suggested syllabus for division bombing school.....	62
E. Bibliography.....	64

WAR DEPARTMENT,
WASHINGTON, *April 28, 1917.*

The following Notes on Grenade Warfare are published for
the information of all concerned.

(2582933-A, A. G. O.)

BY ORDER OF THE SECRETARY OF WAR:

H. L. SCOTT,
Major General, Chief of Staff.

OFFICIAL:

H. P. McCAIN,
The Adjutant General.



NOTES ON GRENADE WARFARE.

INTRODUCTORY.

The exact time of the advent of hand grenades as an instrument of war is uncertain, but is known to date back many centuries. History records their use under the name of "grenades" as early as 1536 at the siege of Arles. The Germans fired grenades from their muskets at the siege of Stettin in 1677. Up to the close of the eighteenth century soldiers were regularly trained in the throwing of hand grenades, and were called "grenadiers." At first, only a few men of long service and marked courage in each regiment were selected as grenadiers; later entire companies of grenadiers were formed; and later still every infantry battalion had its company of grenadiers, which, in the different armies had preference over the other companies at parades and ceremonies, even long after they had ceased to use grenades.

After being obsolete for a century, the use of hand grenades was revived by their employment in large quantities by both sides in the Russo-Japanese war, especially in fighting at close quarters and in assaults on the various forts around Port Arthur. Many of the grenades used in the early part of this war were improvised on the field of battle, but the success obtained by their use led to the invention of many new standard types and their subsequent adoption by all modern armies, including that of the United States.

Modern trench warfare is much like a long siege, with frequent sorties. In the present European war the grenade is a regular part of the equipment of all infantry soldiers, and all nations have established special schools in which officers and men are required to receive instruction in their construction and use.

In a recent address to his troops on the field of a great victory, after six months of fighting by his army, the commanding general said, in effect, that the modern infantryman is more a grenadier than a rifleman, and added that, in all the glorious fighting on this field, the grenade has done more than the rifle. One of this general's division commanders gave it as his opinion

that the rifle as an offensive weapon in trench warfare has been entirely supplanted by the hand grenade, the poniard, and the pistol; and that, in the present methods of attack, the advance should be covered by well-trained grenadiers, abundantly supplied with hand grenades, the following infantry to be armed with grenades as well as with rifles and bayonets.

Grenades have come to be universally regarded as indispensable both in attack and defense. The reason for this is to be found not only in the destructive effect of the grenade but also in that feature of modern warfare which may be described as a tendency to get back to primitive methods of fighting, imposed by the close quarters in which trench warfare must of necessity be conducted. At critical moments in the trenches a man will prefer a bomb or hand grenade which he can throw *toward* his approaching enemy rather than a rifle which he must first aim *at* his opponent. The effect of a hand grenade is much greater and more widespread than that of a rifle or pistol shot. A shower of hand grenades thrown at troops advancing to an attack and exploding with much noise and destroying their lines has a very considerable moral as well as physical effect, and may even stop the attack before it can be pressed home. The attacking troops, in the critical moment just before they reach their opponents, may be thrown into confusion and hence become unable to aim and fire their rifles accurately; in such cases the hand grenade is for them a most efficient weapon. Again, firing the rifle while marching is often impossible, especially for those in rear of the first files when marching in column, as in an advance through communicating or other trenches; but hand grenades may always be thrown. It is also to be remembered that the high-angle fire of hand grenades may be used in the trenches when no target for riflemen can be seen. When artillery fire can no longer be used because of the close proximity of the fighting lines, hand grenades may be used to great advantage.

Grenades are not only thrown by hand, where their limiting range is about 50 yards, but are also fired from the ordinary infantry rifle at ranges from 50 to about 320 yards, and from various projecting devices based on such ancient weapons as the onager, ballista, sling, and catapult, known from the earliest antiquity. The Bible tells us that eight centuries before our era—that is, about 2,700 years ago—Ozias provided the walls of Jerusalem with “machines constructed by a very wise engineer to throw bolts and large stones.”

PART I.

**SELECTION, TRAINING, AND ORGANIZATION
OF GRENADIERS.**

GENERAL.

All officers and men of organizations trained to fight on foot should be instructed in the construction and use of hand and rifle grenades. This instruction must be progressive for individuals as well as for organizations.

In the beginning a small number of specially selected officers, noncommissioned officers, and privates of each regiment should be sent to the grenade school to take a 15-day course of instruction, in order to fit them to act as instructors for their several organizations. Upon successfully completing the course at the grenade school and receiving their certificates to this effect, this detachment should immediately be returned to their regiments to begin the selection, organization, and training of grenadiers, as prescribed hereafter.

At Aldershot the course is 10 days for classes composed of 40 officers and 40 noncommissioned officers, who, after graduation, are returned to their battallions as instructors. A proposed syllabus for a course of training is given in Appendix E.

The Canadian Grenade School, at Shorncliffe, England, trains 60 officers, 60 noncommissioned officers, and 300 privates per month in the handling, throwing, and care of grenades; the care and use of explosives; the making of bombs; the use of trench mortars, spring guns, catapults, and other appliances; and in the latest methods of trench fighting. The course of study lasts one month for officers and noncommissioned officers; the first two weeks as pupils and the last two as instructors of the privates in the school. The course for privates is two weeks.

Germany is said to have introduced the grenade into the present war, and both in her recruit depots and her rest billets