

WEIGHT OF FIRE

Eighteenth Century Miniatures Rules

By

Wes Rogers

TABLE OF CONTENTS

1	INTRODUCTION	1
2	GAME SCALES	1
3	TROOP TYPES.....	1
4	UNITS.....	1
5	MOUNTING FIGURES ON BASES.....	2
6	GENERALS.....	2
6.1	Command Distance and Confusion	2
6.2	Danger to Generals.....	2
7	POINT VALUE CHART	3
8	FORMATIONS	3
8.1.1	Bent Lines.....	3
8.1.2	Formation in Fieldworks and Town Blocks	3
9	ORDER AND STEADINESS.....	3
9.1	Disorder and Good Order	3
9.2	Steady Unit	4
9.3	Exhausted Units.....	4
9.4	Units in the Open.....	4
9.5	Protected (or secure) Flanks.....	4
9.6	Recovering from Shaken or Disordered Status	4
10	TURN SEQUENCE	4
11	MOVEMENT RATES.....	5
12	MANEUVERS.....	6
12.1	Changing Formation and/or Facing.....	6
12.2	Wheeling	6
12.3	Echelon and Sidestep	6
12.4	Backstep	6
12.5	Maneuvering units in Square	6
12.6	Limbering and Unlimbering Guns	6
12.7	Interpenetration.....	6
12.8	Zones of Control.....	7
12.9	Mutually-Protected Flanks	7
12.9.1	Burst-throughs.....	7
12.10	Rout Movement and Burst-Throughs	7
12.11	Dismounting Dragoons.....	8
13	SKIRMISHERS	8
14	CHARGING THE ENEMY	9
14.1	Restrictions on Charging	9
14.2	Countercharges	9
14.3	Support Charges.....	9
14.4	Evading a Charge	9
14.5	Flank/rear Attacks	10
15	SHOOTING AND COMBAT PROCEDURE	10
15.1	Bang you're dead	10

15.2	Hit Chart (Shooting and Combat)	11
16	SHOOTING	11
16.1	Basic Rules of Shooting	11
16.2	Overhead Fire, Line of Sight, and Firing through Gaps	12
16.3	Shooting Tables	12
17	COMBAT	12
17.1	Figures Eligible to Strike	12
17.2	Cavalry Reinforcing a Combat	13
17.3	Disorder in Combat	13
17.4	Impetus	13
17.5	Combat Modifiers	13
17.6	Skirmishers and Artillery in Combat	13
17.7	Cavalry Breakthrough	13
18	MORALE	14
18.1	When to Test	14
18.2	Order of Charge Tests	15
18.3	Morale Test Procedure and Chart	15
19	PURSUIT	15
19.1	Rallying from Pursuit	16
19.2	Pursuing off-Table	16
19.3	Crashing into New Enemy Units	16
20	TERRAIN EFFECTS	16
20.1	Visibility	16
20.2	Rough Ground	16
20.3	Light Woods	17
20.4	Heavy Woods	17
20.5	Hill Slopes	17
20.6	Roads	17
20.7	Obstacles, Rivers, Fords, and Bridges	17
20.8	Town Blocks	17
20.9	Fieldworks and Abatis	18
21	OPTIONAL RULES	18
21.1	Artillery (use some or all of these)	18
21.2	Voluntary Retreat	19
21.3	Pinning Zones	19
21.4	Irregulars	20

Weight of Fire

1 INTRODUCTION

This is a set of rules for playing games representing battles in the mid-Eighteenth Century period of European history using 20-30mm size model soldiers. The rules cover the period very roughly 1740-1790, when the weight of disciplined musket fire ruled the battlefield. The rules do not try to recreate every aspect of 18th Century warfare; for example they ignore most of the complexities of maneuver.

The rules are meant for games using 6-12 units per side. A game like this should take about four hours for a pair of opponents familiar with the rules to complete. Typical game setup involves two fairly equal forces facing one another across a game table laid out with terrain models representing hills, woods, streams, etc. Victory conditions to win a game can vary widely, but usually one player wins when a stated number of the enemy's units have been destroyed or routed off the game table before a set number of turns have been played.

2 GAME SCALES

One model infantry or cavalry figure represents 24 actual men. A cannon (gun) model represents two actual guns. 1" on the game table represents 20 paces (about 50 feet). A turn represents an undefined amount of time. All dice used are 6-sided (D6). All measurements (except base sizes) are in inches.

3 TROOP TYPES

Troops are classed by arm (infantry, cavalry, or artillery), by type and by morale grade. In the main rules all troops are regulars; there is an optional rule covering irregular troops.

Infantry: Infantry are men fighting on foot. Infantry are divided into two types, light and line. Light troops may skirmish but line troops may not. Light troops were rather rare in this period.

Cavalry: Cavalry are men fighting on horseback. Cavalry is divided into two types, light and heavy. Hussars and light dragoons are considered to be light cavalry. Cuirassiers, "horse", and heavy dragoons are considered to be heavy cavalry with armored cuirassiers receiving some extra bonuses. Cavalry in this period formed either in 2 ranks of troopers or 3. All light cavalry formed in 2 ranks. Most heavy cavalry formed in 3 ranks but gradually changed over to the more efficient 2-rank system. The rules reflect this by making 2-rank heavy cavalry slightly less expensive (see the Cost Chart).

Artillery (guns): Artillery is all types of cannons. Artillery is divided into three types: Light, medium, and heavy. Light guns are those shooting 4# shot weight or lighter. Medium guns are those shooting 9# shot weight or lighter but also include light 12-pound guns. Heavy guns fire shot above 9# weight. The rules ignore horse guns as they were very rare in this era.

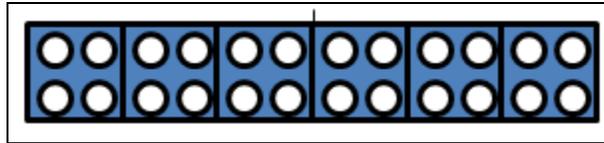
Morale grade: Morale grade is a rating of a soldier's training and general willingness to fight. There are five morale grades: A, B, C, D, and E. 'A' are the best, and 'E' the worst. Most troops should be grade C, average training and morale.

4 UNITS

A unit is a set of like figures acting as one body. Units are the "playing pieces" of the game. Infantry and cavalry units will usually have between 6 and 40 figures depending on the scenario and the historic organization of their armies. Artillery should be formed into batteries of 2-6 gun models (4-12 actual cannons) depending on the historical organization of the army. The figures in a unit must all be of the same type. In cases where grenadiers or light troops are attached to their parent battalion treat them the same as the rest of the figures in the unit.

5 MOUNTING FIGURES ON BASES

Infantry figures should be mounted 2-deep on bases with a width of 20mm per figure and a depth of 12-20mm per rank. The most common basing is 4 figures on a base 40mm wide X 40mm deep as shown below.



Cavalry figures should be mounted in one rank on bases with a frontage of 20-25mm per figure and a depth of 40-50mm. It is visually appealing to base light cavalry at 25mm per figure and heavy cavalry at 20mm per figure.

Artillery should be mounted with one gun model on a 50-60mm wide base with 2-4 crew figures grouped around it. It is convenient to mount the gunners on the stand but leave the gun loose. This way the gunners can leave their guns behind if they evade, rout, etc. One limber model per battery is required unless the guns are being prolonged. Mount limber models on bases of any reasonable size. When limbered represent the entire battery with one limber model plus a hitched-up gun.

6 GENERALS

A model general figure represents either a **brigadier general** commanding 2 or more units or a **major general** commanding one or more brigades. A brigadier may only influence his own brigade. A major general may influence any unit in his assigned brigades. He is also necessary to keep his brigadiers from possible confusion. Most gamers mount their generals on single-figure or small diorama bases.

Generals move 24" per turn. They ignore terrain penalties but may not cross impassable terrain.

6.1 Command Distance and Confusion

A general has a Command Distance (CD) to his units of 12". A major general has a CD of 24" to his brigadiers and 4" directly to the units in his brigades. Measure the command distance from the head of the general's figure to the nearest head in the target unit. If a general joins a unit the unit receives morale bonuses but the general's CD drops to zero (he may influence only that unit).

If a brigadier begins a turn outside the CD of his major general roll a die. On a score of 1-3 he becomes confused and his CD drops to zero that turn. Test for confused brigadiers before testing for confused units. If a unit begins a turn outside the CD of its brigadier or major general roll a die. On a score of 1-3 the unit is confused. You may not move the unit voluntarily that turn. It may still fire, reform from disorder and rally.

You may buy a major general and appoint him to command a brigade. He then acts like a brigadier but needs no parent major general.

6.2 Danger to Generals

If a general is with a unit that suffers 1 pip per front-rank figure losses in a given phase, roll a die. On a 0 or less score the general is killed. Subtract 1 from the die score for each 1 pip per figure the unit suffered in its front rank. For example suppose a unit with 6 front-rank figures suffers 10 pips of damage. This is 1 pip per front-rank figure but not 2, so subtract 1 from the die score. Unattached

Weight of Fire

generals cannot be hit by shooting. But if an enemy unit moves into contact with a lone general roll a die: On a 1 the general is captured; otherwise you may move him slightly to avoid contact.

7 POINT VALUE CHART

Use the chart below to create armies of equal "value" or to give one side a strength advantage in an uneven scenario. You can also use it to buy troops for campaigns.

Infantry	Cavalry	Artillery and Command
Basic cost, grade: A/B/C/D/E 8/6/4/3/2	Basic cost, grade: A/B/C/D/E 20/15/10/8/6	Basic gunner cost, grade: A/B/C/D/E 16/12/8/6/4
Regular light infantry: +4	If cuirassier: +2	Light gun: 50
Rifle-armed: +2	If light: -2	Medium gun; howitzer: 75
Irregulars: -1	If 2-rank heavy cavalry: -2	Heavy gun: 100
Fanatics (irregulars): +2	Fanatics (irregulars): +2	Civilian limber: 10
Heavy weapons (irregulars): +1		Military limber: 25
		Brigadier General: 100
		Major General: 150
		Infantry unit command: 10
		Artillery unit command: 10
		Cavalry unit command: 20

8 FORMATIONS

Below are the legal formations an infantry or cavalry unit must adopt:

Column	A unit 1-4 figures wide.
Line	A unit 5-12 figures wide.
Extended line	A unit more than 12 figures wide.
Square	A unit arranged facing out in all directions. Square is possible only to infantry.
Skirmish	Light troops spaced at roughly double normal frontage or dispersed in a cloud; 25-30mm frontage per figure for infantry, 30-40mm frontage for cavalry.

8.1.1 Bent Lines

Usually the figures in a line or column must be lined up in one or more rows and facing the same direction. However, a line may be bent to form an angle, for example to refuse a flank or conform to terrain. Forming and reforming from a bent line counts as a formation change. In addition, a unit in a bent line may not move voluntarily until it changes back to a regular line or column.

8.1.2 Formation in Fieldworks and Town Blocks

Units in fieldworks or town blocks have no formation as such. You may arrange the unit's bases or figures as desired within the terrain piece.

9 ORDER AND STEADINESS

9.1 Disorder and Good Order

If a unit's formation has been disrupted due to terrain, combat or maneuver it is "disordered". Units that are not disordered are in "good order".

Weight of Fire

9.2 Steady Unit

“Steadiness” implies that a unit is formed up and able to maneuver properly. A unit is steady if it is regulars in good morale, not disordered, not skirmishing and not exhausted. Grade E units, irregulars and artillery are never steady.

9.3 Exhausted Units

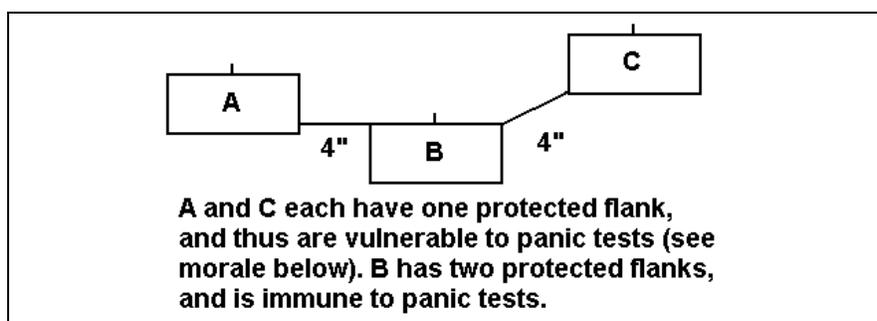
A unit is exhausted after suffering 50% total losses. Exhausted units suffer various penalties. There is no way to recover from exhausted or shattered status.

9.4 Units in the Open

A unit is in the open unless relative to the enemy unit in question it is in or behind disordering terrain. For example, a unit in rough ground would be in the open vs. carefully advancing enemy infantry, but not vs. enemy cavalry.

9.5 Protected (or secure) Flanks

A unit's flank is protected if it has a non-skirmishing friendly unit (including guns) within 4" of the flank in question or if it has impassable terrain within 4" of that flank. The edge of the table in and of itself does not secure a flank. Measure the distance from the nearest point of the friend to the nearest point of the unit's flank. It is OK if the friend is partly or entirely behind or in front of the unit in question. However, a given friend or piece of terrain cannot claim to protect both flanks of another unit.



Protected Flanks

9.6 Recovering from Shaken or Disordered Status

A unit must stand for one full turn without shooting or fighting to recover from shaken or disordered status. If the unit is interpenetrated or suffers a burst-through it may not recover that turn. A unit may recover from both shaken and disordered status on the same turn if eligible.

10 TURN SEQUENCE

The game is played in a series of turns. The rules divide each turn into 4 phases:

Initiative and Rally	<ol style="list-style-type: none">1. Each side rolls 1 die. The high-scoring side chooses to be Side-A or Side-B this turn.2. Both sides test to rally routers, then move units still in rout a full rout move. Test for units to open ranks vs. burst-throughs by routers where necessary.3. Both sides test to rally pursuers then move pursuers a full pursuit move. Note cases where a pursuers crash into new enemy units.4. Both sides test for confusion where generals or units are outside CD.
-----------------------------	--

Weight of Fire

Movement	<ol style="list-style-type: none"> Side-A declares charges and moves chargers; Side-B declares counter-charges, support charges, and evade moves with eligible units as charges are made, and moves these units simultaneously with enemy charge moves, pro-rating moves where necessary. Side-A then moves other desired units. Side-B now declares charges (with units that have not yet moved) and moves chargers; Side-A declares counter-charges, support charges, and evade moves with eligible units as charges are made, and moves these units simultaneously with enemy charge moves, pro-rating moves where necessary. Side-B then moves other desired units. <p>Side-A units may make full normal moves and still make countercharge or evade moves.</p>
Shooting and charge results	<ol style="list-style-type: none"> Vulnerable infantry units take panic tests vs. cavalry charges. Both sides do all shooting (the effects are simultaneous). Units hit by artillery, or suffering at least 1/12 (1 pip per 2 figures) losses from steady fire must test morale. Counterchargers test morale to charge home, and make any recoil moves. Chargers then test morale to charge home, and make any recoil moves. Stationary or evading units test to receive charges if necessary. Move units that routed this phase half a rout move.
Combat	<ol style="list-style-type: none"> Fight one round of combat (effects are simultaneous). Units suffering more hits than they inflict test morale vs. losing a combat. Move units that routed this phase half a rout move. Units test morale vs. friends who routed this turn within 12" of them (use the router's current position). Test to see if affected units enter pursuit and move them half a pursuit move.

11 MOVEMENT RATES

The chart below lists the movement rates for the troops in the game. For artillery the first rate is for limbered speed; the second is for unlimbered or manhandled speed.

Movement Chart (Inches)

Troop Type	Move	Charge	Rout/Evade/Pursue
Infantry in column	10	12	12
Infantry in line	6	8	12
Infantry in extended line	4	6	12
Infantry in skirmish	4	4	12
Infantry in square	2	NIL	12
Light cavalry in column	16	24	24
Light cavalry in line or skirmish	12	20	24
Heavy cavalry in column	12	20	20
Heavy cavalry in line	10	16	20
Light guns (limbered/unlimbered)	10 / 6	NIL	12
Medium guns (limbered/unlimbered)	8 / 4	NIL	12
Heavy guns (limbered/unlimbered)	6 / 2	NIL	12

Weight of Fire

12 MANEUVERS

12.1 Changing Formation and/or Facing

The arrangement of the figures in a unit is its formation. You must change a unit's formation or facing about its front center. A unit must be in good morale to change formation or facing. The cost to change formation and/or facing (including an about face) depends on the unit's Morale Grade:

Grade A-B	The unit expends 1/2 of a move; full move if disordered.
Grade C	The unit expends a full move. If it is disordered the unit becomes shaken.
Grade D-E	The unit expends a full move and becomes disordered. If it is already disordered the unit becomes shaken.

12.2 Wheeling

Wheeling a unit to a new facing is done by moving one flank of a unit about one of its front corners like swinging a door on a hinge. All Grade D-E troops and all unsteady troops wheel at half speed. Measure the distance wheeled using the moving flank of the unit.

12.3 Echelon and Sidestep

The echelon maneuver is when you move a unit forward at a slanted angle up to 22.5°. A steady Grade A-C unit may echelon forward at normal speed. Other units echelon at 1/2 speed.

A sidestep is a sideways movement at a slant of more than 22.5°. Steady Grade A-C units sidestep at half speed. Other units sidestep at 1/4 speed.

12.4 Backstep

Backstepping is moving a unit backwards without changing its facing. A unit does backstepping at half line speed (or extended line speed if in extended line).

12.5 Maneuvering units in Square

You may move a unit in square in any direction at its 2" speed.

12.6 Limbering and Unlimbering Guns

The cost is a full move to unlimber or limber artillery. Most nations used civilian drivers to haul their guns during this period. When a gun with civilian drivers unlimbers, remove the limber from the game. The gun may not limber up again. If artillery with civilian drivers starts a turn within 12" of a visible enemy its limber is removed at once and the unit spends that turn "unlimbering".

12.7 Interpenetration

It costs half a turn's movement for one unit to voluntarily move through another friendly unit. If the unit charges through, it loses its impetus (see Combat). If the unit does not have enough movement to make it all the way through the friend in one turn then you may intermix the units. Both units are treated as shaken until the moving unit passes all the way through. Neither unit may charge nor fire until the moving unit finishes passing through. A skirmishing unit is not an obstacle to interpenetration, but artillery is an obstacle.

Weight of Fire

12.8 Zones of Control

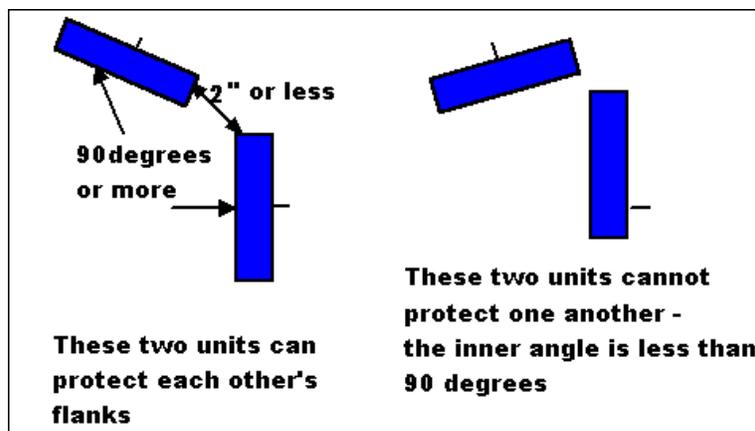
A non-routing close-order unit exerts a 2" zone of control (ZOC) all around itself unless in a town block or in fieldworks. You may not move a unit into an enemy ZOC unless attacking that unit or unless that enemy is being attacked by or is in combat with another of your units.

12.9 Mutually-Protected Flanks

Two units forming an angle in a line (like a partly-opened door) may protect one another from flank charges. Two units can protect each other if:

1. Their flanks are within 2" of each other, and
2. The rear angle between them is 90° or more.

Any charges directed onto the inner, protected flank of such a unit must instead be directed against the front of the friend protecting that flank. Note that skirmishers cannot protect other units but may be protected in this manner.



Example of Mutually protected Flanks

12.9.1 Burst-throughs

If a routing unit encounters a friendly unit, and there is not a gap of at least 4" overlapping the router's frontage it bursts through the friend (squares are not subject to burst-throughs).

When a routing unit contacts a friend the friend must test to see if it can open its ranks to let the routers through. Roll one die. If the unit makes the required score it suffers no ill effects from the burst-through. If it fails it becomes disordered and may not fire that turn. Grade E troops may never open their ranks. Skirmishers, troops in square and troops in town blocks or fieldworks never suffer ill effects from burst-throughs; just move the routers through. The required scores are:

Grade A: 3-6. Grade B: 4-6. Grade C: 5-6. Grade D: 6
Unit is shaken and/or exhausted: -1

12.10 Rout Movement and Burst-Throughs

When a unit routs it the men have decided to run away from the battle. You must move a routing unit away from the enemy within a 45° angle to either side of a straight line from the cause of the rout through the unit's center of mass. Gunners abandon their guns when they rout, becoming a skirmishing unit.

Weight of Fire

When a unit routs its formation may change; this reflects the tendency of the men to crowd together into a clump with the fastest men in front. If a square or line routs or a unit routs out of a town block or fieldwork form it into a column up to eight figures wide. Skirmishers and units in column keep their original formation. A unit may not widen out when it routs.

If a routing unit leaves the game table, encounters impassable terrain or contacts an enemy unit it disperses at once and is removed from play.

12.11 Dismounting Dragoons

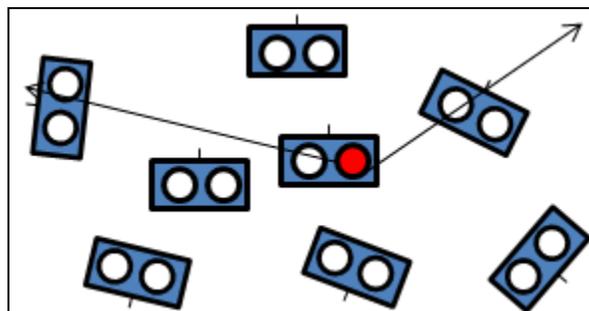
Many dragoon units were capable of dismounted service. Such troops cost 1 point extra to buy. It costs half a move to dismount the unit and a full move to mount up. 1/12 of the figures must remain with the horses (but round down a 6-figure or less remainder). The horses may not move and are eliminated if contacted by the enemy. They may not be shot at. Dragoons operate as light infantry while dismounted. Mounting and dismounting counts as a maneuver.

13 SKIRMISHERS

Light troops are capable of skirmishing. Light troops may use either close order or loose order when not skirmishing depending on their historical drill. Skirmishers receive a slower normal movement rate than formed troops. This seems anti-intuitive but reflects the problems of trying to direct a large group of scattered men. A unit may not have some figures in skirmish order and others in close order; the entire unit must skirmish or be in close order.

Skirmishing infantry has a frontage of 25-30mm per figure. Light cavalry has a frontage of 30-40mm per figure when skirmishing. Heavy cavalry may not skirmish.

You may move skirmishing figures or stands freely as long as you maintain the proper frontage; just move each stand as desired in any direction. However skirmishers must remain with 6" of their unit's command figure (see figure below).



If the unit is separated for some reason you must move the separated figures back within the 6" range on their next turn.

1. It costs light troops half a move to form skirmish order and a full move to form up again.
2. Skirmishers may evade charges; see Evasion below.
3. Skirmishers may pass freely through friendly units and never cause or suffer burst-through effects.
4. Skirmishers must retire in the face of an advance by close-order enemy troops, maintaining at least a 2" distance. You may retire them up to 12" and may retire them even if they have already moved that turn. If they cannot retire far enough to avoid the enemy all contacted figures are eliminated.
5. Skirmishers occupying buildings or fieldworks are treated as disordered close-order troops.

14 CHARGING THE ENEMY

To contact the enemy and begin a combat a unit must make a charge move.

1. To perform the charge move your unit at charge speed into contact with the target or targets.
 - a. If the target countercharges or other enemies announce support charges it will be necessary for the players to pro-rate the moves of all units concerned simultaneously.
2. To charge the unit must be able to see its target at the start of the move.
3. The charge must bring as many figures as possible to contact and make contact as flatly as possible. A unit may wheel after initial contact to bring in more figures.
4. If several units charge one target, space them as evenly as possible across its frontage.
5. Units may contact at an angle if necessary. But if the contact angle is more than 45° the charger counts as under flank/rear attack.

14.1 Restrictions on Charging

1. Foot charging cavalry becomes disordered.
2. Squares may not charge.
3. Skirmishers may not charge close-order troops frontally except in woods.
4. Shaken units may not charge. Exhausted units may still charge, however.

14.2 Countercharges

A countercharge is a charge move made to meet an enemy attack. It begins as soon as the enemy unit is visible to your unit. Units under flank/rear attack may not countercharge.

14.3 Support Charges

Steady regular cavalry may attempt to charge in support of a friend that is being charged.

1. A support charge is treated as a countercharge in all respects.
2. To successfully begin a support charge you must roll a 3-6 on one die for the unit.
3. A unit may not declare a support charge if it is itself the target of a charge.
4. If a unit fails to support charge, it may not charge or advance later that turn.
5. Note that a Side-A unit may make a full normal move and still countercharge or do a support charge later that turn.
6. The charging unit may alter the direction of its move up to 45 degrees to meet the support charge.

14.4 Evading a Charge

An evade move is when a unit turns and retreats to avoid an enemy charge.

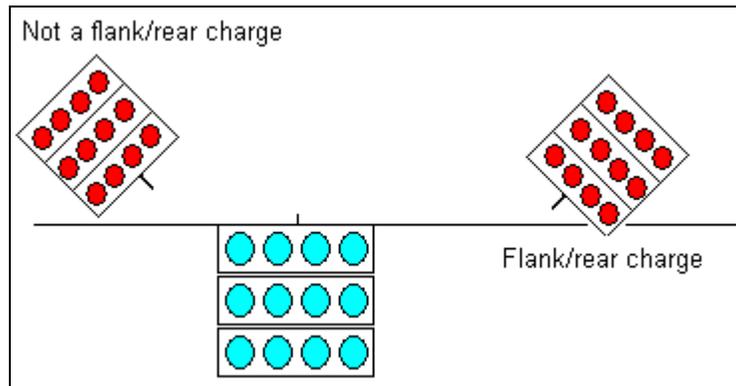
1. Skirmishers, gunners and light cavalry in a single rank may evade enemy charges.
2. Turn the evaders about and move them away from the enemy up to a full evade move at an angle of up to 45° to either side of the direction of the enemy's advance.
3. Evaders end their evade move with their backs to the enemy and may not move later that turn.
4. If the charging unit is not visible at once pro-rate the evade distance. For example if the charger bursts into view after half a move the evaders only get half an evade move.
5. If light cavalry evade a charge they become disordered.
6. Evaders may shoot before they evade, at the time when the enemy charge is first visible or first comes into range.

Weight of Fire

- The chargers may halt at the evaders' initial location or continue their charge in a straight line to contact another target. If they move farther than a normal move without contacting a target they become disordered.

14.5 Flank/rear Attacks

To count as a flank or rear attack, the charger must begin the charge with one or more of its figures behind the target unit's frontage line (a line extended sideways along the front of its front rank).



Example of Flank/rear Attack Zone

15 SHOOTING AND COMBAT PROCEDURE

The effects of shooting and combat are calculated using the same basic procedure.

Determine the number of figures able to shoot or strike, roll one die and modify the die roll. Cross-index the modified score with the number of figures firing/striking on the Hit Chart to see how many hits were inflicted. Each full loss or hit removes one figure from play.

The lowest score is -1, the highest is 10.

15.1 Bang you're dead

Players who do not like the carry-forward system can agree to roll a die to see if a partial-figure remainder should be rounded up to a whole figure or dropped. In the example above (3.1) you would roll a die, losing a 4th figure (6 more pips) on a score of 1. This method eliminates book-keeping but makes combat and shooting results chancier.

Weight of Fire

15.2 Hit Chart (Shooting and Combat)

Final Score	Figures Firing or Striking (gunners X2 when firing)													
	10	20	30	1	2	3	4	5	6	7	8	9		
-1	0.1	0.2	0.3											
0	0.1	0.2	0.3	0							0.1	0.1		
1	0.2	0.4	1.0						0.1	0.1	0.1	0.2	0.2	
2	0.4	1.2	2.0					0.1	0.1	0.2	0.2	0.3	0.3	0.3
3-4	1.0	2.0	3.0				0.1	0.1	0.2	0.3	0.3	0.4	0.4	0.5
5	1.2	2.3	3.0			0.1	0.2	0.3	0.3	0.4	0.5	0.5	1.0	
6	1.3	3.0	4.3	0.1	0.2	0.3	0.3	0.4	0.4	0.5	1.0	1.2		
7	1.4	3.3	5.1	0.2	0.3	0.4	0.4	0.5	1.0	1.1	1.2	1.3		
8	2.0	4.0	6.0	0.2	0.3	0.4	0.5	1.0	1.1	1.2	1.3	1.4		
9	2.3	5.0	7.3	0.3	0.4	0.5	1.0	1.1	1.3	1.4	2.0	2.1		
10	3.0	6.0	9.0	0.4	0.5	1.0	1.1	1.3	1.5	2.0	2.1	2.3		

The decimal notation indicates 1/6 partial losses. Each 1/6 of a figure lost is a "pip": 6 pips add up to 1 whole figure. For example 5.3 means 5 whole figures lost plus 3 pips or 3/6 of a figure carried forward. Track pips via a roster or small markers and remove a figure each time 6 pips have accumulated.

Example: If 24 figures shoot and their modified die score = 5 the chart indicates 2.4 + 0.3 = 2.7 → 3.1. This would be 3 figures lost plus a 1-pip remainder to be carried forward.

16 SHOOTING

16.1 Basic Rules of Shooting

1. The effects of fire are simultaneous; use each unit's strength in figures at the start of the phase.
2. The arc of fire is 22.5° left or right from the front middle of each firing figure or gun model.
3. One rank of close-order or loose-order figures may shoot. Two ranks of skirmishers may shoot.
4. Small arms and ballshot have a close range and a far range. Canister only has a close range.
5. Moving and shooting:
 - a. A steady unit may shoot at the start of a charge move if it did not fire last turn.
 - b. Steady infantry may move full and fire with no penalty if this is its first fire of the game.
 - c. An evading unit may fire before evading at a penalty.
 - d. Other units may make half a normal move and shoot at a penalty.
6. Stationary units may shoot at any target in arc and range for at least half a move or after contact. Moving units can only shoot at targets still in arc and range at the end of all movement.
7. A unit in combat may not be shot at unless it has a "hanging flank" sticking out more than 4 figures.
8. Units may not shoot through other units.
9. Carbine-armed units shoot like unsteady muskets using 1/2 musketry range.
10. Artillery Crews: count each crew figure up to 4 per gun model doubled. So a 3-figure crew shoots as 6 figures on the chart
11. Dense Targets: This modifier only applies to ballshot. A dense target is a unit 2 or more ranks of stands deep, enfiladed at 22.5° onto its flank or in square

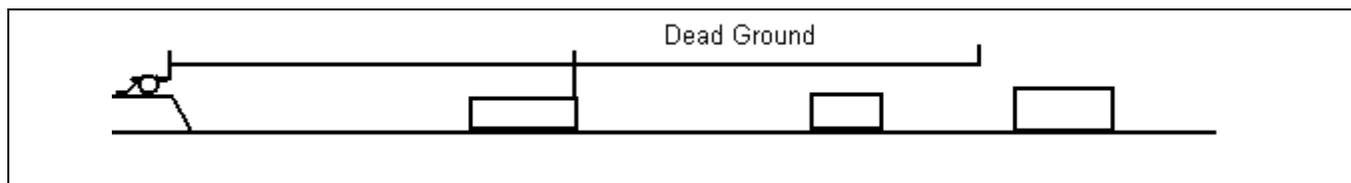
Weight of Fire

12. Priority of Fire:

- a. If a general is within 2" of a unit it may shoot at any eligible target the player chooses.
- b. Otherwise it must fire at the nearest eligible target or an eligible target within 4" of the nearest.

16.2 Overhead Fire, Line of Sight, and Firing through Gaps

Rifles and ballshot may shoot over friends on lower hill contours, if the friend is less than half the distance from the firer to the target, and there is at least 6" between the friend and the target.



Example of Overhead Fire

A firing unit always needs a clear line of sight (LOS) to its target. To determine LOS, stretch a line from the closest corner of the firing figure or gun model's frontage to the nearest point of the target. If the line does not cross any enemy units that are in combat, and does not cross any friendly units, and does not cross any blocking terrain features, then the target may be shot at.

One gun model or four figures with small arms may fire through each 2" of gap between obstacles.

16.3 Shooting Tables

Shooting Ranges (close / far)			
Musket:	6 / 12	Rifle:	12 / 24
Light gun with canister:	12 / -	Light gun with ballshot:	20 / 30
Medium gun with canister:	16 / -	Medium gun with ballshot:	30 / 45
Heavy gun with canister:	20 / -	Heavy gun with ballshot:	40 / 60
Shooting Modifiers			
Firer is grade A / B / C / D / E:	+2 / +1 / +0 / -1 / -2		
Ballshot vs. dense target:	+2		
First fire with steady small arms:	+2		
Canister fire:	+3		
Disordered or mounted fire; rifle fire; firing unit is in square:	-2		
Firer is firing and evading or moving and firing (but note first fire):	-2		
Firer is shaken or exhausted:	-2		
Far Range:	-2		
Vs. soft cover, skirmishers, or unlimbered guns (rifles ignore):	-2		
Vs. hard cover:	-4		

17 COMBAT

17.1 Figures Eligible to Strike

Count all the figures in contact with any enemy plus an overlap of 4 to either side plus the figures in the second rank behind these. Figures may not be turned to face flank attacks or moved up to "wrap around" enemy flanks. Once units make contact they remain in place until the combat ends.

A square may count the figures in faces adjacent to contact toward its overlap.

Weight of Fire

17.2 Cavalry Reinforcing a Combat

You may attack with a second cavalry unit behind the first, if the first is in one rank of figures. Treat this as an attack by two units. Only two total ranks may strike. For a unit to be in one rank there must be no models in the second rank of the unit.

17.3 Disorder in Combat

Units suffering 1/12 (1 pip per 2 figures) losses in one round of combat become disordered. Calculate this value based on the unit's strength at the start of the game.

17.4 Impetus

To have impetus, an infantry unit must charge its final 2" straight to contact, not crossing any obstacles, and must be steady at the time of contact. A cavalry unit must charge its final 4" straight to contact as above to have impetus. A unit may claim any straight-ahead movement from the end of its most-recent move toward impetus. Cavalry never has impetus when charging a steady square if the infantry has bayonets.

17.5 Combat Modifiers

Modify each player's initial combat die score as indicated below:

Each morale grade above/below the enemy:	+1/-1
Vs. enemy flank or rear or vs. routing troops:	+3
Troops with impetus vs. troops without impetus:	+2
Heavy cavalry vs. other troop types (except squares) in the open:	+1
Vs. soft cover or steep slope:	-1
Regular infantry without bayonets:	-2
Any troops vs. cuirassiers:	-2
Cavalry vs. square, or any troops vs. hard cover:	-3
Unit is shaken and/or exhausted:	-3
Unit is striking to its flank or rear:	-3
Irregular fanatics:	+1
Irregulars with heavy weapons:	+2

17.6 Skirmishers and Artillery in Combat

When a skirmishing unit or artillery is occupying or attacking fieldworks, woods or buildings (not merely an obstacle such as a fence or stone wall) treat them as disordered close-order troops.

In other situations skirmishers may charge and fight only with other skirmishers. If skirmishers or gunners are contacted by non-skirmishing troops the figures contacted are overrun and wiped out and the remainder of the unit must test morale for losing a combat.

Non-skirmishing troops who overrun enemy skirmishers or artillery may either halt at that point or continue their charge unabated, into the next target in the line of their charge. Overrunning skirmishers or artillery does not disorder a unit.

17.7 Cavalry Breakthrough

If all of a steady cavalry unit's combat opponents rout after the current round of combat it may make a charge move to contact an eligible visible enemy unit in reach. The cavalry must have advanced at least 2" into combat this round. This triggers an immediate combat round with all the units involved. If no

Weight of Fire

target is in reach the cavalry may not move. The target of the breakthrough may react to the charge as allowed elsewhere in the rules. A breakthrough move may not be used to reform or change formation/facing. Once the cavalry becomes disordered it may no longer continue to make breakthrough moves.

18 MORALE

A unit's state of morale indicates the willingness of the unit to keep fighting and obeying orders. A unit in the game may be in one of three states of morale:

1. Good (or Ok)
2. Shaken (thinking about running)
3. Routed (actively running away)

18.1 When to Test

A unit must test morale under these conditions:

Panic vs. a cavalry charge	<p>Infantry and gunners charged by cavalry that has impetus at time of contact must test before shooting. Certain troops are exempt from the test:</p> <ol style="list-style-type: none"> 1. Steady bayonet-armed infantry with 2 protected flanks vs. a frontal charge. 2. Any bayonet-armed infantry in square.
Vs. shooting hits, to charge home or to receive a successful charge	<p>Vs. Shooting: If a unit suffers any hits from artillery or at least 1/12 (1 pip per 2 figures) losses from steady small arms fire it must test morale. Unsteady fire never causes a morale test. This sort of scattered fire will wear a unit down but not cause an actual break.</p> <p>Charge home: A unit charging or counter-charging to contact with the enemy must test morale. In a charge-countercharge situation, the counter-charging unit tests first, then the charging unit. It is likely that a charging unit will be hit by shooting during its charge; in this case, the unit only takes one morale test, covering both the shooting hits and the test to charge home.</p> <p>Receive a successful charge: If a unit is standing or evading vs. a successful charge it must to receive the charge.</p> <p>These tests are mutually exclusive: A unit never takes more than one per turn.</p>
Vs. losing a round of combat	<p>If a unit suffers more pips in hits than it inflicts in a round of combat it has lost that and must test morale (a whole figure lost = 6 pips).</p>
Vs. a friend routing within 12" on the current turn	<p>If a visible friendly unit routs this turn within 12" the unit must test morale. Note that units can see all around themselves! Measure the 12" distance after the router makes its initial rout move; the rules assume it takes this long for everyone to realize what is happening. Measure the smallest distance between any parts of the two units.</p>
To rally from rout. Testing to rally from rout is optional	<p>A unit may make a voluntary test to rally from rout at the start of any turn. Certain units may not rally from rout:</p> <ol style="list-style-type: none"> 1. If exhausted 2. If Grade E or <i>irregulars</i> 3. If the unit has a visible enemy of any type within 6".

Weight of Fire

18.2 Order of Charge Tests

There will often be cases where several units charge into each other in succession. It may not be clear whether units should test to charge home or to receive a charge. In such cases tests to charge home come before tests to receive charges and Side-B makes them first.

For example suppose A Side-A dragoon unit makes a flank charge against a disordered Side-B infantry unit. Side-B then charges a hussar unit into the dragoons. This would not be a countercharge but a normal charge made during Side-B's movement step. The sequence of tests would be:

1. The infantry takes a panic test. If it does not rout it fires at the dragoons; note the losses suffered.
2. The hussars test to charge home at the dragoons.
3. The dragoons then test to charge home at the infantry (and the hussars if they did not recoil).
4. If the dragoons charge home the infantry test to receive the charge.

18.3 Morale Test Procedure and Chart

To test morale roll two dice and modify the score as listed below in the Morale Chart. The result may be OK, Shaken or Rout. Note that shaken units remain shaken if the result is Ok.

Unit Grade	Result per Score			Morale Modifiers
	Rout	Shaken	OK	
A	0	1-2	3+	General with unit / No general in Command Distance: +2 / -1
B	1	2-3	4+	Each 1/12 losses suffered this phase: -1
C	2	3-4	5+	Vs. flank/rear charge or combat attack or fire: -2
D	3	4-5	6+	Unit is shaken, routing and/or exhausted: -2
E	4	5-6	7+	Unit is doing a flank/rear charge vs. any target: +4
				Unit is charging a shaken or routing unit: +4
				Unit has lost the current round of combat: -3
				Frontal charge vs. steady bayonet-armed infantry: -4
				Infantry vs. successful charge by steady cavalry or steady bayonet-armed infantry: -4
				Surprised (unit is testing vs. an enemy it could not see at the start of the phase): -2
				Each visible routing friend within 12": -1
Ok	If Ok or shaken the unit carries on in its current morale state. If it is routing the unit halts disordered in good morale; It may do a free about face.			
Shaken	If the unit is charging or counter-charging it recoils 1D6+1" facing the enemy in shaken morale. For example if the unit rolls a '3' it would recoil 4 inches. If it is routing it continues to rout. Other units stand shaken.			
Rout	The unit makes a half rout move at the end of the phase (its "initial" rout move) and then makes full rout moves each turn in phase 1 until it rallies or leaves the table. Units that rout off the table do not return to the game. Routing units become disordered. They may not fire or strike in combat.			

19 PURSUIT

When a unit routs all of its enemies in combat, it may enter pursuit. Roll one die and consult the Pursuit and Rally Table below to see if this happens; or you may simply allow the pursuit to begin. Units entering pursuit become disordered and suffer the same "clumping" as routing units.

Weight of Fire

1. Infantry will never pursue cavalry.
2. Exhausted or shaken troops never enter pursuit.
3. Gunners never enter pursuit.

The initial pursuit move is half a charge move long. Continued pursuit moves are a full charge move long. The initial pursuit move is mandatory. Thereafter the pursuit continues until:

1. The target is destroyed.
2. The target enters terrain impassable to the pursuers (the pursuers halt at the edge)
3. The pursuers encounter new enemy units

Pursuit and Rally Table

To resist entering pursuit: 3-6. To halt a pursuit: 4-6. To return to the table: 4-6			
General attached:	+1	Cavalry:	-1
Behind cover or in square:	+1	Grade D-E:	-1
Target is faster:	+1	<i>Irregulars (see optional rules):</i>	-1
Grade A-B:	+1	You allowed the pursuit:	-1

19.1 Rallying from Pursuit

Testing to rally from pursuit is optional. You may test to halt a unit's pursuit at the start of each turn. Use the Pursuit and Rally Table above to see if the unit halts.

19.2 Pursuing off-Table

If a pursuing unit cannot halt it will pursue its target off the table. In this case roll one die each turn, in the initiative phase, to see if the pursuer returns to the battle. On a score of 5-6 the pursuer returns. Place the unit on the table edge as close as possible to where it left. It is in good order and in the same formation in which it exited. It may not charge that turn but may countercharge or evade.

19.3 Crashing into New Enemy Units

If the target of a pursuit passes through a friend its pursuers crash into that new unit. This is a charge without impetus. If the new unit successfully rolled to open ranks it may do a defensive fire. It may never countercharge however.

20 TERRAIN EFFECTS

The rules below should be considered general guidelines; it may well be that a woods in a particular scenario will have different effects than those listed here, for example.

20.1 Visibility

Visibility is unlimited across open ground. Visibility is blocked by terrain and other units, including artillery and skirmishers. A unit is taken to produce enough smoke, dust and distraction that observers must be at least one hill contour above to see over them.

20.2 Rough Ground

Rough ground is an area of scattered trees, scrub, rocky ground, vineyards, orchards, fields with many low boundary walls, etc. Skirmishers move through rough ground at normal speed. Other infantry and cavalry must move at half speed or become disordered. Artillery moves at one-half speed through rough ground. Most rough ground gives no cover and does not block sighting but this may vary by

Weight of Fire

scenario. Each inch of rough ground counts as 6" distance for ballshot fired into or across it. It has no effect on small arms or canister or shell range. Rough ground is one contour high.

20.3 Light Woods

Skirmishers move normally through light woods. Other troops move at half speed and become disordered. Light woods give soft cover against shooting but no cover in combat, except that infantry may claim soft cover vs. cavalry attacks. Sighting and shooting range inside is 12". Troops may not see past the edge (in or out) unless within 2" of the edge. Troops on the edge are invisible beyond 12" unless they shoot.

20.4 Heavy Woods

Skirmishers move half speed through heavy woods. Other infantry moves at quarter speed and become disordered. Cavalry and guns may not enter or attack into heavy woods except along roads. Heavy woods give soft cover against shooting but no cover in combat. Sighting and shooting range inside is 6". Troops may not see past the edge (in or out) unless within 2" of the edge. Troops on the edge are invisible beyond 6" unless they shoot.

20.5 Hill Slopes

Hill height is measured in contour levels. Each contour is about 25 feet of elevation. There are two types of hills, gentle and steep. Gentle hills have no effect on movement. Steep hills cut movement by half (skirmishers move normally) and disorder cavalry. A unit fighting up a steep hill counts as vs. obstacle on the first round of the combat. Crestlines block line of sight unless the sighting unit is on a higher contour level or touching a crestline on the same level. For simplicity the rules ignore any dead ground that might lie near the front slopes of hills.

20.6 Roads

A limbered gun or a unit in a column up to 4 infantry or 3 cavalry figures wide may move 4" extra if foot or guns, and 6" extra if cavalry, if it spends its whole turn on a road.

20.7 Obstacles, Rivers, Fords, and Bridges

Linear obstacles generally cost 2" per rank of figures to cross (that is, the unit moves 2" slower if any part of it still needs to cross the obstacle). Treat streams as obstacles. A unit is disordered while crossing or divided by a substantial obstacle such as a stream but not minor obstacles such as stone walls and fences. Rivers are usually only passable at bridges and fords. Units generally move across fords at half speed, treating them like streams instead of rivers. A unit may cross a ford using a formation no wider than the ford. A unit must cross a bridge in a formation no more than 4 figures wide, and becomes disordered upon crossing.

20.8 Town Blocks

Rather than trying to show individual houses in towns or villages, the game uses "blocks" of buildings. It is usual to represent a block with a piece of felt or cloth, usually rectangular and about 6" X 8". Place on it one or two model buildings to show the relative strength of the block. For example a very strong block might have models of brick or stone structures, while a weak village might get wattle hut models. Blocks can usually hold a garrison of 24-48 figures and are 1-2 contours high. It costs nothing to enter a block but half a move to emerge. You may split a unit among contiguous blocks. But if the troops in any block rout the whole unit routs. Units in or attacking blocks become disordered and remain disordered when they emerge.

Weight of Fire

Protection inside Town Blocks: Cover for troops in town blocks can vary. Define it carefully at the start of the game. Most town blocks give soft cover against medium or heavy ballshot and hard cover vs. other fire or in combat. But a block representing a mere cluster of huts might provide no cover vs ballshot or shell and soft cover in combat.

Town Blocks and Shooting: The garrison can shoot out from its block with figures equal to half the maximum garrison size.

Town Blocks and Combat: In combat the entire garrison fights, dividing its dice among all attacking units. The attacker may attack each side of the block with figures equal to twice the maximum garrison size of the block, in any number of ranks. For example if the attackers are in a column six ranks deep, all six ranks may attack.

1. Units retreat out of town blocks in column except for irregular skirmishers.
2. The attacker may occupy the block if all the defenders are forced out.
3. Cavalry may not attack town blocks.

Strongpoints and Walled Enclosures: Some town blocks may represent walled enclosures or large single structures. In a case like this only the first two ranks of an attacking unit may strike, and only figures overlapping the structure by 4 to either side.

Ruined Blocks: 6 hits from medium or heavy ballshot or four from howitzer shell (see below) will wreck a typical town block. You may adjust this number up or down depending on the relative size and strength of a particular block. You may also wish to have “wrecked” versions of model buildings to represent ruined blocks. A ruined block provides one level of cover less than normal, with soft cover becoming an obstacle.

20.9 Fieldworks and Abatis

Typical works cost 2” to cross and are passable only to infantry. Their cover effects can vary. Most fieldworks give hard cover vs shooting and soft cover in combat. Define a “disorder zone” behind or inside the works, usually 2” deep. Troops in this zone move like skirmishers, but at half speed, and are disordered. Troops entering or attacking fieldworks become disordered.

Six hits from heavy ballshot or howitzer shell will destroy a 3” section of most fieldworks. You may adjust this number up or down depending on the relative strength of a particular set of works. Wrecked works provide one level of cover less than normal. If light works are wrecked then they provide no cover but still count as an obstacle if defended.

Abatis provides no cover but is impassable until removed. Roll a die for each 4 figures spending a turn in contact with the abatis: On a score of 4-6 it removes its frontage of abatis at the start of the combat phase. If the abatis is being defended at the time the defenders may shoot before the attackers try to remove it. The attackers become disordered when they roll to remove the abatis.

21 OPTIONAL RULES

The rules below add detail but also complexity to the game. Decide before the game begins which if any you will be using.

21.1 Artillery (use some or all of these)

Howitzers: Howitzers fire canister like light guns. They may fire shell freely over obstacles as long as the target is visible to the crew and not within 2” of a friendly unit. Town blocks and fieldworks generally give only soft cover or none at all from shell. A howitzer costs the same as a medium gun.

Weight of Fire

Shell Disordering Cavalry: Horses were particularly hard to control when under the burst effects of exploding shells. For each hit shell scores on a cavalry unit, roll one die: On a six the cavalry fall into confusion and become disordered.

Shell Causing Fires: Shell also had a property of causing a lot of fires when exploding atop or inside of buildings. For each hit shell causes to a town block, roll one die: On a 6 the block catches fire and the defenders must abandon it on their next active move.

Ballshot Carrythrough: This rule allows ballshot to bounce through an initial target into rearward units in the line of fire. Take a line from the front center of the firing unit to the nearest point of the target, and then extend it for the listed number of inches. Any new units the extended line crosses are also targets. Rivers, woods, town blocks, fieldworks, crestlines, and fire plunging down two or more contours stops carrythrough. Carrythrough distances are 6" for light guns, 12" for medium guns and 16" for heavy guns.

Artillery Duel: If artillery was fired on by enemy artillery last turn it must fire back if possible unless the player rolls a 5-6 on one die, or it has a target within canister range or a general is attached to the unit. If multiple required targets exist it must shoot at the nearest. This overrides other priority of fire rules.

Battalion Guns: You may attach a light gun model with 1-2 gunners directly to an infantry battalion at a cost of 25 pts (plus the cost of the gunners).

1. The battalion must move at light gun manhandled speed.
2. The gun is lost if the unit evades or routs. If the unit charges the gun remains behind until it can catch up to its parent. It may not shoot until it regains contact with its parent.
3. The gun may not be hit by enemy shooting.
4. It is ignored in combat and does not block its parent figures from shooting or fighting.
5. The gun may change its position within the battalion during the movement phase.

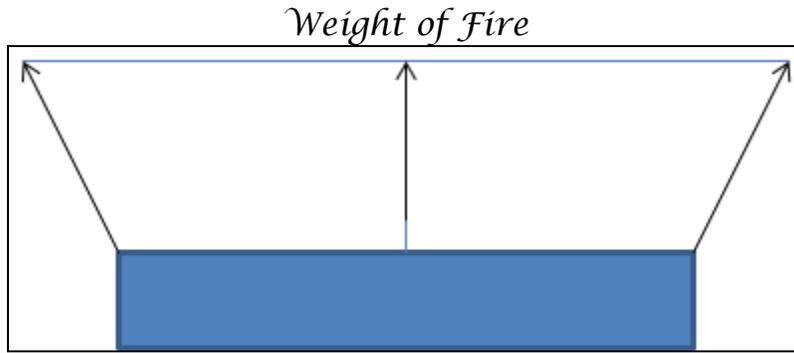
21.2 Voluntary Retreat

A regular infantry or cavalry unit or a limbered artillery unit may be retreated at least one and up to two rout moves if not in combat. It must end the retreat farther from all enemy units than it began and must retreat away from the majority of visible enemy units. It may about face or remain facing the enemy. The unit becomes disordered and shaken and suffers 1/12 losses. If it is already shaken the unit remains shaken but suffers 2/12 losses. Irregulars may not make voluntary retreats but you may place the unit into routed status to get it off the table.

21.3 Pinning Zones

If a close-order unit performs any maneuver except a forward wheel, forward echelon or evade move when within the pinning zone of a visible enemy (including artillery and skirmishers) and within the enemy unit's front facing it halts shaken at once. A unit's pinning zone extends outward at a 22.5° angle from its two front corners to a distance of 6". Units in square, shaken units, routing units, units in town blocks and units in fieldworks exert no pinning zone.

The only "safe" things it can do are to move forward, wheel forward or respond to a charge. (Remember an about face counts as a maneuver, so the unit would become shaken).



Skirmishers, units in town blocks and units in fieldworks ignore pinning zones but skirmishers may not reform when within them.

21.4 Irregulars

Most units in the game will be composed of regulars: Men belonging to standing units trained to respond to standard orders. Some armies however employed irregulars: Tribal groups or feudal levees fighting more as semi-organized mobs than coherent units. Typical examples would be Austrian Grenzers, Russian Cossacks, Highlanders and most Turkish troops. Gunners must always be regulars.

1. Irregulars must be formed into either **skirmish** or close-order **massed** units. Irregular skirmishers may not form into close order; massed units may not skirmish.
2. Irregular cavalry must be light; they get no special bonus for any light lances they carry.
3. Irregulars maneuver as if Grade E and are never considered to be steady.
4. Command Distance to irregular units is always 4".
5. Irregulars may not rally from rout.
6. Irregulars may not move if in a formation more than 12 figures wide. This includes skirmishers.
7. Irregular massed cavalry in one or two ranks of figures may evade a charge on a 1D6 score of 4-6.
8. Massed irregular units may be fanatics. Fanatics get combat and morale bonuses until they become shaken. They then lose their bonuses and drop one morale grade.
9. Massed irregular infantry units may be armed with heavy weapons (2-handed weapons, swords-and-shields, etc.). They may not shoot but get a combat bonus.
10. Once per game you may give a massed unit a headlong charge order. You must then move it each turn full speed toward the nearest visible enemy, charging if possible. The order continues until the unit becomes shaken or routs.
11. Irregular infantry must be Grade C D or E. Irregular cavalry must be Grade B, C or D.

Weight of Fire Playsheet

Turn Sequence

Initiative and Rally: Roll for initiative. Rally routers and pursuers; move them if unrallied. Check for confusion.

Movement: Side-A moves and then Side-B. Vulnerable infantry takes panic tests vs. cavalry charges.

Shooting and Charge Tests: Do shooting; test morale vs. shooting; complete charge sequences.

Combat: Fight one round. Losing units test morale. Both sides test morale vs. routing friends in 12".

Movement Chart

Troop Type	Move	Charge	Rout/Evade/Pursue	Wheel: Half speed if unsteady or Grade D-E. Change Formation: Grade A-B, ½ turn; if disordered, 1 turn. Grade C: Full turn; if disordered the unit becomes shaken. Grade D-E: Costs 1 move and the unit becomes disordered; if already disordered, it becomes shaken. A formation change may include a facing change. About face counts as a formation change. Echelon: Half line speed (if more than 22.5") Sidestep and Backstep: One-half line speed. Interpenetration: Half speed, one unit may not move. Skirmishers free, but not guns. Charge through friend: Lose impetus, both are disordered. Unlimber/limber guns: Full move. ZOC: Remember 2" ZOC around most units.
Infantry column	10	12	12	
Infantry line	6	8	12	
Inf. ext. line	4	6	12	
Infantry skirmish	4	4	12	
Infantry square	2	NIL	12	
Light cavalry column	16	24	24	
Light cavalry line	12	20	24	
Heavy cavalry column	12	20	20	
Heavy cavalry line	10	16	20	
Light guns	10/4	NIL	12	
Medium guns	8/3	NIL	12	
Heavy guns	6/2	NIL	12	

When to Test Morale: A unit must test morale under these conditions: Vs. panic; if hit by guns; 1/12 losses from steady fire; to charge home (counterchargers test first); to receive a successful charge; vs. losing a round of combat; vs. a friend that routed within 12" on the current turn; to rally from rout.

Morale Chart

Unit Grade	Result per Score			Morale Modifiers
	Rout	Shaken	OK	
A	0	1-2	3	General with unit / No general in Command Radius: +2 / -1
B	1	2-3	4	Each 1/12 (1 pip/2 figures) losses suffered this phase: -1
C	2	3-4	5	Vs. flank/rear charge, combat attack, or fire: -2
D	3	4-5	6	Unit is shaken, routing, and/or exhausted: -2
E	4	5-6	7	Unit is doing a flank/rear charge vs. all targets: +4
				Unit is charging a shaken or routing unit: +4
				Unit has lost the current round of combat: -3
				Frontal charge vs. steady infantry with bayonets: -4
				Infantry vs. successful charge by steady cavalry/bayonets: -4
				Unit is surprised: -2
				Each visible routing friend within 12": -1
				<i>Fanatics (not yet shaken):</i> +2

Rout: Turn and run. **Shaken:** If charging or counter-charging, recoil 1D6+1"; if routing, keep routing.
Ok: Carry on normally (shaken units remain shaken); routers halt disordered and may do a free about face.

Burst-Thru Effects by Routers: Roll to open ranks or drop one morale state: Grade A: 2-6, B: 3-6, C: 4-6, D: 5-6. -1 if shaken and/or exhausted. Grade E troops can never open their ranks.

Pursuit and Rally: To resist: 3-6. To halt or return to the table: 4-6

General attached: +1	Target is faster: +1	Cavalry: -1	<i>Irregulars:</i> -1
Behind cover or in square: +1	Grade A-B: +1	Grade D-E: -1	You allowed the pursuit: -1

Weight of Fire Playsheet

Shooting Ranges (close / far)	
Musket (carbines 3/6):	6 / 12
Light gun with canister:	12 / -
Medium gun with canister:	16 / -
Heavy gun with canister:	20 / -
Rifle:	12 / 24
Light gun with ballshot:	20 / 30
Medium gun with ballshot:	30 / 45
Heavy gun with ballshot:	40 / 60
Shooting Modifiers	
Firer is grade A / B / C / D / E:	+2 / +1 / +0 / -1 / -2
Ballshot vs. dense target:	+2
First fire with steady small arms:	+2
All canister fire:	+3
Disordered or mounted smoothbore fire, rifle fire; firing unit is in square:	-2
Firer is firing and evading or moving and firing:	-2
Vs. soft cover, skirmishers or unlimbered guns (rifles ignore):	-2
Unit is shaken or exhausted:	-2
Far Range:	-2
Vs. hard cover:	-4
Combat Modifiers	
Each morale grade above/below the enemy:	+1/-1
Vs. enemy flank or rear or vs. routing troops:	+3
Troops with impetus vs. troops without impetus:	+2
Heavy cavalry vs. other troop types (except squares) in the open:	+1
Vs. soft cover or steep slope:	-1
Regular infantry without bayonets:	-2
Any troops vs. cuirassiers:	-2
Cavalry vs. square, or any troops vs. hard cover:	-3
Unit is shaken and/or exhausted:	-3
Unit is striking to its flank or rear:	-3
<i>Fanatics:</i>	+1
<i>Irregulars with heavy weapons:</i>	+2

Hit Chart (6 pips = 1 whole figure)

Final Score	Figures Firing or Striking (gunners X2 when firing)											
	10	20	30	1	2	3	4	5	6	7	8	9
-1	0.1	0.2	0.3									
0	0.1	0.2	0.3				0				0.1	0.1
1	0.2	0.4	1.0					0.1	0.1	0.1	0.2	0.2
2	0.4	1.2	2.0			0.1	0.1	0.2	0.2	0.3	0.3	0.3
3-4	1.0	2.0	3.0		0.1	0.1	0.2	0.3	0.3	0.4	0.4	0.5
5	1.2	2.3	3.0		0.1	0.2	0.3	0.3	0.4	0.5	0.5	1.0
6	1.3	3.0	4.3	0.1	0.2	0.3	0.3	0.4	0.4	0.5	1.0	1.2
7	1.4	3.3	5.1	0.2	0.3	0.4	0.4	0.5	1.0	1.1	1.2	1.3
8	2.0	4.0	6.0	0.2	0.3	0.4	0.5	1.0	1.1	1.2	1.3	1.4
9	2.3	5.0	7.3	0.3	0.4	0.5	1.0	1.1	1.3	1.4	2.0	2.1
10	3.0	6.0	9.0	0.4	0.5	1.0	1.1	1.3	1.5	2.0	2.1	2.3