

Dig! Damn You! Dig!

A Fortress Siege Game Set in the Eighteenth Century
By Jon Oldham

Images of the crossed muskets and howitzer barrel are
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Introduction:

These rules owe a lot to games and rule sets that have come before them. Chief among them are “When Cannon are Roaring” by Peter Berry as published in MWAN #117, “Great Ardoberg-Holstein Rules” by Gary Comardo published in Seven Years War Assoc. Journal vol. 2, no. 4, The Perfect Captain’s Renaissance Siege rules, and “Art of the Siege” by Bob Duncan published in Tornado Alert #23. Any imbalance of play, or unhistorical result in these rules are totally the fault of myself. If you want to point any of these errors out to me, feel free to email me at smalloak12@yahoo.com.

These rules are intended to produce the feel of an mid-eighteenth century siege. They are still in the process of being play-tested to make them as historical as possible, while still trying to keep the games fun and exciting. Logistics were and are a large part of any campaign, so I did include a certain amount of bookkeeping. A general needs to have a certain amount of skill in keeping the books, in order to keep his troops in combat shape.

Also, I felt that a pseudo double-blind system would work well for this type of warfare. With each general knowing that the other has troops out there, but what those troops are doing remains a bit fuzzy. Using this system allow the players to do a little bit of bluffing, and allows for a bit of slight of hand which I feel is another good trait for a general (or that I’ve been watching too much poker on ESPN).

I’ve started out with the assumption that a formal siege, if conducted properly, will always result in a victory for the attacker. That is why victory is determined by the number of honor points gained and not entirely by the outcome of the siege. I also have tried to use the points system create a game where the opposing generals must balance their forces keeping in mind that they need; infantry to man the lines, gun crew to man the guns, pioneers and engineers to build, and good leadership to win. Also keeping in mind that the must use their supplies and ammunition wisely.

I’d like to thank in advance anyone who goes through the trouble of downloading, cutting and gluing the pieces together in order to play this game. I hope it is time well spent.

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1. Game Components

Terrain Squares: There are various different types of terrain tiles each with different effects on play. They are assumed to represent approximately 100 yards of real terrain in each direction. To ready them for a game you simply cut them out, score them along the center line, and then glue the white side and fold them, so that you have a two sided terrain piece. Alternately, you can cut them apart giving you 2 separate tiles, but this makes them less sturdy.

Bastions - They are the strongest defensive and offensive piece of terrain in the game. Bastions are assumed to have a second row of casemated guns below the guns on their walls which comes into play during an assault phase. A Bastion is only used on the corners of the fortress and links two wall sections, or a wall section and a gate section. They have a base strength of **seven**. The Defender can purchase no more than **four** bastions at the start of the game, This is because I am not clever enough to make a star shaped fort. Bastions can be improved to a strength of **ten**.

Casement Wall Sections - Wall sections have a base strength of **five**, and are anchored on either side by bastions. A wall can be of any length, provided you have the space on the table. But remember, the longer the wall the farther the center is from the protection of the bastions. Walls can be improved to a strength of **eight**.

Gatehouse Wall Section - This is the only way for troops to move from the fortress to the covered way. If the gatehouse is taken, the defender's troops can no longer move into the covered way from the fortress. But if the attacker has taken the gatehouse, I think you may have more pressing things to worry about. Gate sections also have a base strength of **five**. Gatehouses can be improved to a strength of **eight**. Gatehouses also have a drawbridge which gives restrictions on movement from the tenaille (the small island in front of the gate) to the wall itself.

Ravelins - There are two different types of ravelins depicted in the terrain tiles. One guards the gatehouse and, though no guns are depicted on the tile, they are considered to be casemated under the wall for the protection of the Ravelin itself. Ravelins have a base strength of **six**. Ravelins can be improved to a strength of **nine**.

The Covered Way - The covered way is the outer protection of the fortress and depicted with the moat behind it. It also includes corner sections and a three-piece section to fit around a ravelin. All sections of the covered way have a strength of four, the only difference between pieces is their shape. Covered way sections can be improved to a strength of **six**. The covered way does not have any cannon.

The Moat - While the moat does not have its own Tile, its presence is very important. No units can cross the moat except by bridges, or by using fascines. It has no intrinsic strength.

Trench Sections - Trench Sections are the main defenses for the troops of the attacker. They have a base strength of **three**, but may be improved to a strength of **five**. Trenches may change into other types of terrain. They may become gun emplacements, or will change to show a sap entrance if one is constructed to its front.

Gun Emplacements - Are the only pieces from which the attacker can bombard the defender. The gun emplacements may contain **only one** type of the following: Cannon, Howitzers, or Mortars. Once mortars are emplaced they may not be moved, cannon and howitzers may be moved however. Gun emplacements have a strength of **five** and may not be increased. All gun emplacements must be purchased at the start of the game, but they are not placed until the positions are built, during a turn's engineering phase. This represents the guns the attacker has available at the start of a siege. When a gun emplacement is destroyed and a new one built, it is considered to be a new gun emplacement and the guns of the old one to be destroyed.

Saps - Saps are the lines that connect one set of trenches to another. They must start at one trench section in a line of trenches and continue toward the fortress until another line of trenches is built. Saps have a strength of **three** and may **only** be improved to **four** if there is a line of trenches between it and the fortress.

Other Terrain Tiles not mentioned are only present for aesthetic reasons and have no effect on play.

Counters - The counters work in much the same way as the terrain tiles. You simply cut them out, score the along the center line and glue the back to the front. All troop counters must be assembled in this manner, the markers can be cut apart if you prefer. Each infantry and cavalry strength point equals 50 men, while pioneers and gun crew strength points equal 20 men. Officer and engineer counters represent the officer and his staff.

Infantry - Infantry are the back bone of the army. They protect the pioneers, guard the gun crews, assault the enemy works, and help dig trenches.

Cavalry - Cavalry are not much good in assaulting the castle, but they provide assistance to the attacking force. They forage for supplies and maintain security. Around the

perimeter.

Gun Crews - Gun Crews man the cannon and mortars. If you run out of them, your hopes of winning are pretty slim.

Pioneers - Pioneers are essential to building trenches, digging mines and repairing fortifications.

Leaders - There are four different leader counters: majors, colonels, generals and engineers. Each plays a particular role and give bonuses for different things.

Markers - Markers do not belong to the army of either side, they are used freely by both to determine such things as troops strength, Damage to walls and trenches, and accessories carried by troops. With the exception of the mortar, howitzer, shell hit and dud markers, markers are placed under troops counters to hide them from the enemy. Some markers that come with the game will not have explanations at this time. They are for rules, that will be added later, when this game is revised and expanded.

Strength Point Marker - Gives the number of strength points of the unit above it.

Ammo Marker - Determines the amount of ammunition allocated to a gun position for that turn.

Damage Marker - Gives the number of damage points, taken by the piece of terrain above it.

Leadership Modifier Marker - Gives the number of leadership points of the leader it is with. Leadership Markers are placed with leaders at the start of the game and stay with them for the whole game, or until they are eliminated.

Shell Marker - Shows the current placement of mortar or howitzer shells during the bombardment phase.

Dud Marker - Show shells that hit but failed to explode. Important in the supply phase.

Mine Marker - shows the entrance to a mine or counter mine. Also will mark the exit if the mine is successful.

Howitzer Marker - Shows that a battery of guns is comprised of only howitzers.

Mortar Marker - Shows the placement of mortars by the defender. Once placed, they can not be moved.

Breach Marker - Is placed when the number of damage points a piece of terrain has accumulated has equaled or exceeded the strength of that terrain.

Fascines - Represent bundles of sticks used to cross moats. They must be carried to the moat by infantry.

Supply Sheet - Each team must keep track of the amount of Ammunition and Supplies that they expend each turn. These are recorded on the supply sheet. Also on the supply sheet are boxes for recording the number of strength points and guns lost during the siege.

Organization Chart - Each side also gets a chart for keeping track of how many strength points are performing different actions during a turn. Tracks also exist on the org. chart for morale or combat effectiveness and for keeping track of honor points won.

Also, included in the tools files are:

A rangefinder, which can be either glued or taped together with the white section going under the green, so that the black lines meet. A counter identification sheet, and a compass for determining weather guns can fire a particular piece of terrain.

You will also need some six-sided dice, a deck of regular playing cards, and a flat surface such as a table or the floor.

2 Starting the Game

First, both sides must decide on the number of points involved in the siege. The easiest way to do this is to have the defender determine his forces first and then the attacker can determine his forces. The defender must start with at least eight terrain tiles and a general, and the attacker with four terrain tiles, an engineer, and a general. Whatever else the players purchase for the siege is up to them.

The players also set up their org. charts, these should be out of view of their opponents. And mark off the number of strength points for each type of unit or supply they have purchased on the supply track. This is done by placing one diagonal line (like a spare in bowling) in each box for that unit type up to the number of strength points or supply points purchased.

The Points values for the game are as follows:

<u>Terrain</u>	
Terrain Type	Points
Bastion	100
Extra to upgrade 1 damage point (to 10)	20
Casement wall	50
Extra to upgrade 1 damage point (to 8)	15
Ravelin	80
Extra to upgrade 1 damage point (to 9)	20

Gatehouse	60
Extra to upgrade 1 damage point (to 8)	15
Covered Way	25
Extra to upgrade 1 damage point (to 6)	10
Trench Section	25
Extra to upgrade 1 damage point (to 5)	10
Gun Emplacement with Cannon (5 Damage Points)	40
Gun Emplacement with Mortars (5 Damage Points)	40
Gun Emplacement with Howitzers (5 Damage Points)	80

Officers

Type	Points
General	60
Each Leadership point up to 3	30
Colonel	40
Each Leadership point up to 2	20
Major	20
Each Leadership point up to 1	10
Engineer	80
Each Leadership point up to 3	40

Troops and Supplies

Troop or Supply Point (Cost is Per Point)	Points
Infantry	1
Pioneers	6
Gun Crews	4
Cavalry (Attacker only)	2
Mortars (Defender)	30
Ammunition Points	1
Supply Points	1

Set up

After all troops, leaders, and terrain have been purchased, and marked down on the

supply chart. (Which should only be printed on regular paper). The defender places his terrain tiles on the table first. The tiles must be continuous. The attacker then places his tiles on the board. To place the tiles, first lay the rangefinder on the table then lay the trench tiles down at the opposite end of the rangefinder. They must make a continuous line perpendicular to the rangefinder. If the attacking player so chooses, he may move the terrain tiles toward the fortress as many squares as the leadership value of one of his engineers. If the defender has purchased any mortars they must be placed in terrain sections at the beginning of the game.

3 Sequence of Play

1. Allocation Phase
- 2 Deployment Phase
3. Engineering and Observation Phase
4. Bombardment Phase
5. Assault Phase
6. Morale Phase.
7. Supply Phase
8. Honor Phase

4 Allocation Phase

In the allocation phase both players take all of their troops and determine how many strength points of each are going to perform the various tasks needed by their side. This is done by placing a marker of that troop type with a strength point marker, or markers, underneath it onto the proper task box on the org. Chart. In this phase, the players also determine how many ammunition points to give to each of their batteries.

Troops can be allocated to any of the following tasks, with certain restrictions.

Manning Walls / Trenches - Each section of offensive and defensive terrain **must** be manned by troops of their respective side. There has to be at least one strength point, but there can be more as long as the number of troops does not exceed the stacking limit for that terrain piece. This can be done by any troops except cavalry. Terrain under construction does not require troops to man it until after it has been built.

Manning Guns - Fortress sections and battery positions need men to serve the guns on that terrain section. This can only be done by gun crews. If a section of terrain that includes artillery, wants to fire during the bombardment phase or during the defensive fire segment of the assault phase it must include gun crews.

Guard Duty - Troops can be put on guard duty during the allocation phase. This represents, for the attacker, Guarding against enemy troops or partisans attacking the rear of your lines and guarding against desertion. The attacker must have more cavalry strength points on guard duty than infantry strength points on guard duty to prevent desertion. This is handled in the Supply and Morale Phase. The defender does not need

any troops on guard duty unless he is at half rations. Then he must place one strength point on guard duty or lose one additional supply point per turn to the black market. This task can only be performed by infantry and cavalry

Construction - The attacker and defender may place troops in the construction task box. This is the pool of men for doing any digging, repairing or building during the engineering phase. Only pioneers and infantry can perform this task. Infantry can not perform this task alone, they must be stacked with pioneers.

Foraging - Only the attacker may send out troops to forage in the countryside for additional supplies. Only cavalry and Infantry may perform this task, and only cavalry may forage if the attacker's morale drops below **six**. Rules for foraging are dealt with in the section on supply and morale.

Sortie / Assault - This represents the pool of troops available to attack the lines of the other side. Troops performing this task use extra supply points even if no attempt at an assault or sortie is attempted. Only infantry may perform this task.

Covered - Only the defender may perform this task. This represents troops keeping hidden in the casemates. Troops performing this task are immune to fire from the attacker during the bombardment phase. The only exception is the "casemate roll" as described in the indirect fire section of the bombardment phase rules. Any troop type, including officers, may perform this action. Generals performing this action have an adverse effect on honor.

The attacker can also keep some of his troops from being allocated at all. These troops are assumed to be resting in the camp. There are adverse morale implications if the attacker keeps too many troops at "rest".

5 Deployment Phase

In the deployment phase, all the troops allocated to assault / sortie, or to manning guns, walls, or trenches are put on the table in the terrain tiles of the players choosing up to the stacking limits. Other troops stay on the org chart.

Stacking - Every terrain type has a stacking limit, meaning that only that number strength points of one side can be in that terrain piece at a given time. The stacking limit for a terrain piece is double the terrain piece's strength rating, but only an equal number of the same troops may occupy it. The only exception to this is when troops are massing for an assault or sortie. Troops that were placed in either the assault or sortie task box may also stack in a terrain piece at up to the stacking limit. Example: in a trench section with a strength of three, there are six infantry strength points manning the trench, in the trench there could also be another six strength points ready for an assault. Officers are not affected by stacking restrictions.

All troops placed on terrain pieces at the start of a turn are considered to be in trenches or

behind walls. Just because a player mistakenly put his counters on a piece of the tile that appears to be open terrain, that other player can not claim them as being in the open.

6 Engineering and Construction -

The number of construction projects that a player can perform in a turn's engineering phase is determined by the number of engineering points available to that player and by the troops allocated to construction tasks in the turn's allocation phase.

Engineering points available to a player each turn are the combined leadership points of that player's engineers. For example, if a player has two engineers each with two leadership points, then the player would have four engineering points available to him each turn. Building, repairing, and improving terrain all cost a fixed number engineering points as shown on the chart below. Any excess troops allocated to construction tasks and that are not used during this phase, remain in this box for the purposes of determining how many supply points were used during the supply and morale phase. The chart on the following page shows the costs for each action that can be done during the engineering phase. The first number represents the number of engineering points needed. The next number is the number of pioneers it takes for that task. The third number is the number of infantry it takes to perform the same task, if in the same terrain piece as an engineer. A dash (-) means that the task can not be performed by that troop type.

The amounts for repairing and improving are per strength point of that type of terrain.

Terrain Piece	Building	Repairing	Improving
Sap / Trench	1 / 2 / 4	1 / 1 / 3	1 / 2 / -
Gun Emplacement	2 / 3 / -	1 / 1 / 3	1 / 2 / -
Fortress Section	-	2 / 2 / 4	2 / 3 / -
Covered Way	-	1 / 1 / 3	2 / 2 / -
Mine or Countermine	2 / 3 / -	-	-

After determining what tasks are to be done during the engineering phase, both players place the troops and terrain tiles for those tasks in their proper places. All troops must remain in those terrain tiles for the entire turn. Troops performing repair or improvement tasks count towards stacking restrictions.

Tiles under construction in a turn are considered to have the same strength as a completed tile for the purposes of the bombardment phase. Tiles attacked during the bombardment phase which have repair tasks being performed during that turn, keep any new damage they receive during the turn and then deduct the number of points repaired. If a section of trench, sap or a gun emplacement is destroyed in a turn, in the next turn it must be rebuilt as a new. Sections of fortress or the covered way can only be repaired, they can never be rebuilt.

Observation - During the engineering phase, leaders (majors, colonels and generals) may attempt to determine how many troops are in a particular section of terrain. Each leader can make an observation attempt against one opposing terrain tile. To do this a leader must have been placed on the board during the deployment phase and he must be within 10 spaces of the terrain tile he wishes to observe. No measurements may be made ahead of time. They are made during the observation attempt. For a successful observation, the leader must roll equal to or less than his leadership rating on a six sided die. If the leader roll equal to his leadership rating, he may choose to turn over 1 enemy counter of his choosing in that terrain tile, and examine the strength marker underneath. If he rolls less than his leadership rating, he may examine all counters in that terrain tile.

Mines - *will be added in the next version of the rules, when I can make rules that satisfy me. As of right now all of my ideas have not seem to work logically to me.*

7 Bombardment Phase - During the bombardment phase both sides fire their guns at the other using both direct and indirect fire. Any section of terrain that holds guns, and has had ammunition allocated to it may fire during the bombardment phase. Players should start on one side of the table and work across to the other side, all fire is considered to be simultaneous as it represent the continuous fire over the course of several days.

Direct Fire - Cannon and Howitzers may both use direct fire. Howitzers may use direct fire at a distance of up to **eight** spaces. Cannon have a range of **fourteen** spaces. If cannon are firing at a terrain tile at a distance of **six** spaces or less it is considered close range. No Measuring may be done before firing. The fire factor for a section of terrain that may fire is equal to the number of gun crew strength points times the number of ammunition points allocated minus the number of combat effectiveness or morale points lost times the number of damage points to that terrain tile or:

$$(GC \times AP) - ((CE \text{ or } M) \times DP) = \text{Fire factor}$$

Example: A bastion has 5 gun crews, and the player has allocated 3 ammo points to the bastion. The base fire factor is 15. But the Bastion has taken 3 damage points and the defender's army has lost 2 points of its combat effectiveness, resulting in a minus factor of 6. The fire factor is now 9. This is how many dice the defender throws for the bastion.

Each 6 rolled on a d6 results in a hit on a terrain tile resulting in one damage point for the terrain tile. A section of the attacker's works which takes more damage points that it has strength points is removed from the table. A fortress or covered way terrain which takes more damage than it has strength points will have a breach marker placed on it. At close range a 5 or a 6 will result in a hit. For every hit roll again, another 6 roll will result in the loss of one strength point loss to the troops in that terrain tile. The type of troops losing the strength point is up to the defender.

Bastions and Ravelins may split their fire between two targets. When doing this they must split their fire evenly. A left over factor is lost. The two targets must be on separate

sides of the bastion or ravelin.

Indirect Fire - Mortars and Howitzers may make indirect fire attacks. They may make indirect fire attacks at a distance of 15 spaces. The system is different for indirect fire than for direct fire. Determining the fire factor is done in the same manner as for direct fire. After finding the fire factor, the player takes that number of shell markers and places it on the gun battery using indirect fire. He then turn over one card from the deck of playing cards for each shell marker. Red cards represent an under shoot, a black card an over shoot.

The number on each card represent the distance the shell lands over or under. The shell marker is then placed on that square and a d6 is rolled to check for damage. If a 6 is rolled, the troops lose one strength point, the terrain suffers no damage. The only exception to this is the casemate roll explained below. Each turn fired the shells become more accurate however. This is shown on the indirect fire table

Example: A mortar battery with four gun crews and 2 ammo points is firing at the covered way for the first time. They have suffered no damage and their morale is at 10, so their fire factor is 10. The attacker then takes 10 shell markers and places them on the battery. He then draws 10 cards. The cards are: 2, 5, K of Spades, 8, 4, 2 of clubs, Q, 9 of Hearts and Q, A of Diamonds. He then consults the table below and get a result of 1 hit, 3 airbursts, 2 1space long, 7 spaces long, 4 spaces long, 3 spaces long, and 8 spaces short. Then he places the Shell markers on the affected space using the range finder to determine distance. If there is no terrain in that area remove the marker from play. If it is an air burst, flip the marker over the target square.

CONSECUTIVE TURNS FIRED

Card	1	2	3	4	5	6	7	8	9
A	H	H	H	H	H	H	H	H	H
2	1	1	1	1	1	1	1	1	1
3	2	2	2	2	2	2	2	2	2
4	3	3	3	3	3	3	3	3	3
5	4	4	4	4	4	4	4	4	4
6	5	5	5	5	5	5	5	5	H
7	6	6	6	6	6	6	6	H	H
8	7	7	7	7	7	7	H	H	H
9	8	8	8	8	8	H	H	H	H
10	9	9	9	9	H	H	H	H	H
J	AB	AB	AB	H	H	H	H	H	H
Q	AB	AB	H	H	H	H	H	H	H
K	AB	H	H	H	H	H	H	H	H

After determining where the shells fall, it is time to determine their effect. Roll a d6 for each affected square. A roll of 6 will cause 1 strength point of damage to the troops in

that tile. It does not matter if the troops are friends or enemies, they still lose a strength point.

Casemate Roll - On a roll of a 6, if the affected square is a section of the fortress. Roll a d6 once more. On a roll of a 6, the shell has rolled into the casemate and exploded. Roll a d6 one more time and that is the number of cards drawn to determine the damage cause by the explosion. Aces and face cards all represent one, all other cards represent their number.

Spades = Troop Strength Points

Clubs = Damage points

Diamonds = Ammo Points

Hearts = Supply Points.

For example a King of Hearts would mean the loss of 1 supply point, and a Five of Clubs would mean 5 damage points were done to the terrain tile where the explosion occurred. Troops strength point losses come from troops in the covered box first and then from those on the terrain tile itself. If there are more damage points caused by the casemate roll than there are strength points for that terrain tile, a breach marker is placed on that tile.

Mortars - Once mortars begin firing at a terrain tile, They are considered to have placed into position and they may not fire at any other piece of terrain nor move.

8 Assaults and Sorties - Assaults and sorties are carried out in the assault phase. The assault phase has its own sequence of play and, the assault phase is repeated until all assaults and sorties have been resolved.

Sequence of Play for the Assault Phase

- 1 Declare Assaults/Sorties
- 2 Movement
- 3 Defensive Fire
- 4 Resolve Melee Combat
- 5 Morale Checks and Pursuit

Declaring Assaults - In this Phase, the players turn over any troops that were allocated to performing assaults or sorties on the Org Chart and are now on the table. Only troops allocated to an assault may take part in on the first turn in which an assault has been declared. Other infantry manning the trenches or walls may join in the assault on the following turns of the assault phase.

Movement - All assaulting troops may move one space either directly from one terrain tile to another or by using the range finder to move the troops the distance from the front edge of the tile it moved from to the distance of what would be the edge of the next terrain tile as marked on the range finder. Troops defending against the assault may now move troops from adjacent terrain tiles into the tile to be assaulted, they must still observe stacking restrictions .

Defensive Fire - If the assaulting troops are in range of cannon or in the are in the same terrain tile as the infantry they are assaulting. The defending side may now fire at the assaulting troops.

Cannon from any terrain pieces within range may fire. They roll 1 die for each ammo point allocated during the allocation phase of this turn. On a roll of a 6 the assaulting troops lose 1 strength point. When the assaulting troops move into the tile to be assaulted, the defending infantry may fire. They roll 1 die for each defending strength point, and on the roll of a 5 or 6 the assaulting troops lose one strength point.

Resolving Melee Combat - If troops from both sides occupy the same terrain tile after defensive fire is conducted, a melee ensues. This is resolved using the Melee Results Table (MRT). First both sides add up the number of strength points in the tile. They then determine the odds on the MRT, all fractions are rounded down in favor of the defender.

Example : The assaulting player has 6 strength points, the defender has 2. The odds would be 3:1. On the MRT the assaulting player's number is always first. Modifiers are then added to the odds and one die is rolled. Modifiers move the odds table in favor of each play. For example, a +1 modifier for the assaulting force would move odds from 1:1 to 2:1.

Modifiers

Assaulting Force

- +1 per Leadership Point
- +1 Higher Morale or CE
- +2 Morale or CE is Double
- +1 Gun Crews or Pioneers defending

Defending Force

- +1 per Leadership Point
- +1 Higher Morale or CE
- +2 Morale or CE is Double
- +1 Per Strength Point of Terrain Tile

	1:2	1:1	2:1	3:1	4:1
1	1/-	1/-	1/-	M	M
2	1/-	1/-	M	M	1/1 M
3	1/-	M	M	1/1 M	-/1
4	M	M	1/1 M	-/1	-/1
5	M	1/1 M	-/1	-/1	1/2
6	1/1 M	-/1	-/1	1/2	-/2

Results: All results are Assaulting Force/Defending Force. A number on the MRT number means that the force indicated loses that many strength points immediately. An M result means that the forces remain locked in melee until the next turn of the assault phase. Neither side locked in melee has to check morale, and more troops may be added to the melee next turn. Melees also cancel out stacking restrictions, as both sides can continue to add troops into the melee. If a leader is present during an assault, he must roll if that side takes loses, a roll of six means that the leader is killed. Generals may never lead assaults.

Morale Check - After combat has been resolved the player that lost the combat (lost more strength points) must have the forces left in that terrain tile check their morale. To do this roll 1d6. If the number rolled is less than the morale or combat effectiveness of his army, (as shown on the org chart), the unit stands to fight the next turn. If the number is greater than or equal to the morale or combat effectiveness rating, then the unit retires to the next terrain tile connected to it. It must follow the route of walls or the covered way. It can not cross the moat except by bridge. If a unit can not retire, it surrenders instead. If, by retreating the units would be in violation of stacking, they continue to retire until they no longer violate stacking. Strength points may be dropped off along the way, up to the stacking limit if there is room. If the assaulting troops win the melee and force the defending troops to retire, they may pursue the retiring forces into the next terrain section if the player so desires. If the attacking force loses their morale check, the assault is over. They are considered to have not been able to carry on with the assault or sortie.

9 Morale - In the supply and morale phase various factors are examined to determine whether the attackers morale or the defenders combat effectiveness are effected. All factors in the morale chart are consulted below by combining the positive and negative factors. If there are more negatives than positives then that sides morale or CE is reduced by one, if there are more positives it is increased by one. If they are even there is no change. Neither the morale of the attacking army nor the combat effectiveness of the defending army are ever greater than ten.

Positive Factors

Plus 1

Less strength points lost this turn than opponent
Caused more damage points than received
Take covered way (per section)
Destroyed gun position

Plus 2

Fortress wall breached
Ravelin Taken
Won Assault or Sortie

Minus 1

More strength points lost this turn than opponent
Received more damage points than lost
Lost assault or sortie if defending force in that assault
If more guns silent than firing this turn
If more troops inactive, not allocated (Attacker only)
Leader killed

Minus 2

Lost assault or sortie if attacking force in that assault
At half rations

After determining the current level of the attacker's morale, the attacking player must make a desertion roll. Roll 2 dice, if the number rolled is higher than the attacker's morale factor then the attacker loses one strength point for each number above rolled above the current morale factor. For example, the current morale factor is 7 and the attacker rolls a 9. Two strength points of infantry desert. Only infantry desert. One strength point of deserters are stopped for every 2 strength points of cavalry on guard duty. The Defending player never checks for desertion

10 Supply - During the supply phase, both sides determine the amount of supplies used during that turn, and the attacker checks to see what supplies, if any, are sent to help by his king to help with the siege. The players also checks off the number of supplies and ammunition used up in the turn on the supply chart by making another diagonal line in the boxes of the supply track and creating an X in that box. Start making X's in the very first box of the track.

Both sides use up 1 supply point for every 10 strength points of troops. Some other actions cost more supply points. Any fractions of ten are rounded up. A force of 34 strength points would use 4 supply points. For the purposes of supply, all leaders count as one strength point. The number of supply points used for those actions are listed below. The costs are per 10 strength points

Action	Cost
Construction	2
Assaults / Sorties	3

Generals have an effect on the number of supply and ammunition points used. During the supply phase, the defending general rolls one d6 for supplies and one d6 for ammo. If he rolls his leadership rating or lower, one point is deducted from the total amount spent in whichever roll was successful.

The attacking general also rolls one d6 to determine whether supplies are sent from home. If the number rolled is equal to or less than his leadership rating, the attackers have received supplies.

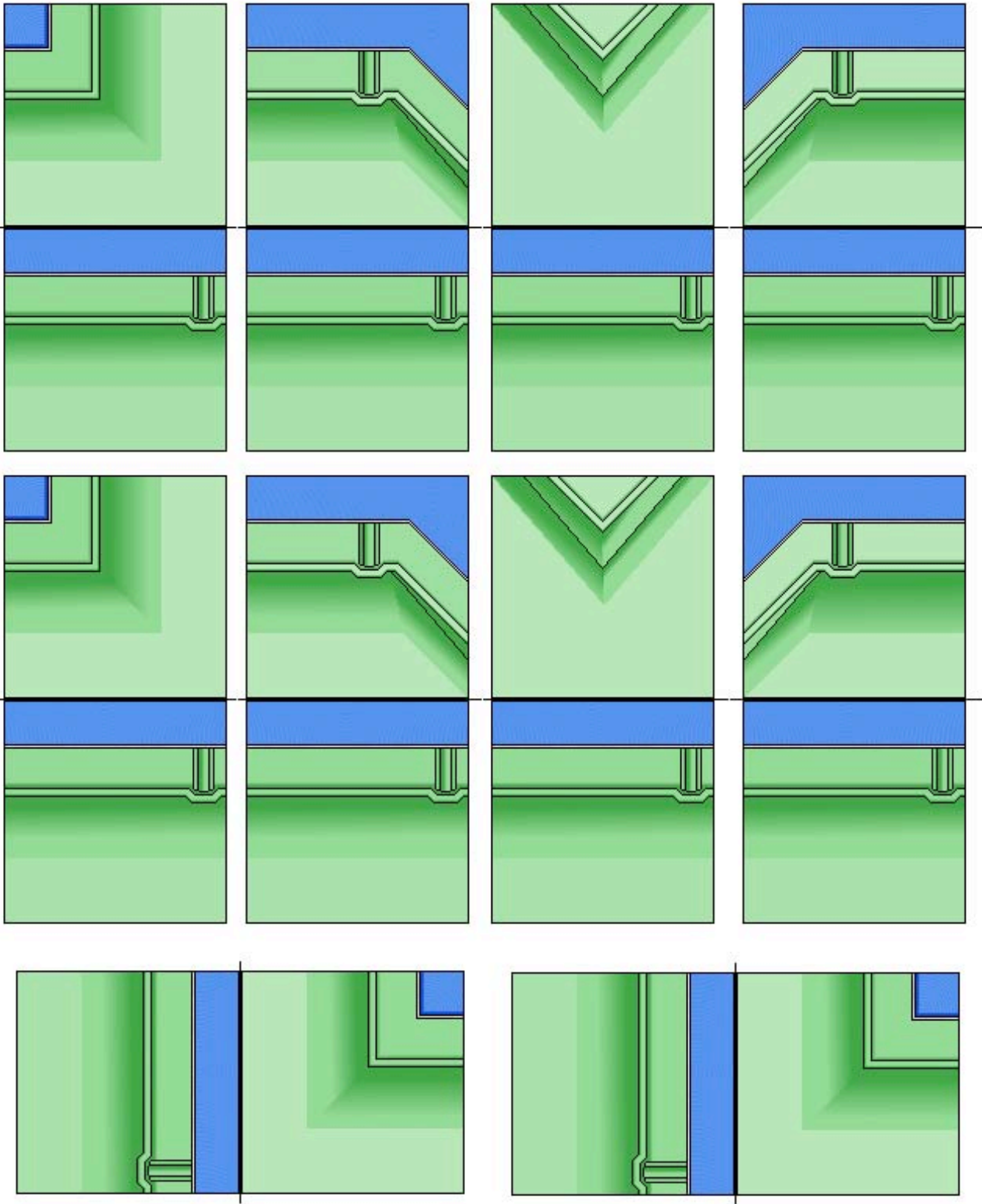
Another d6 is rolled to determine how many cards are drawn to see what supplies are received.

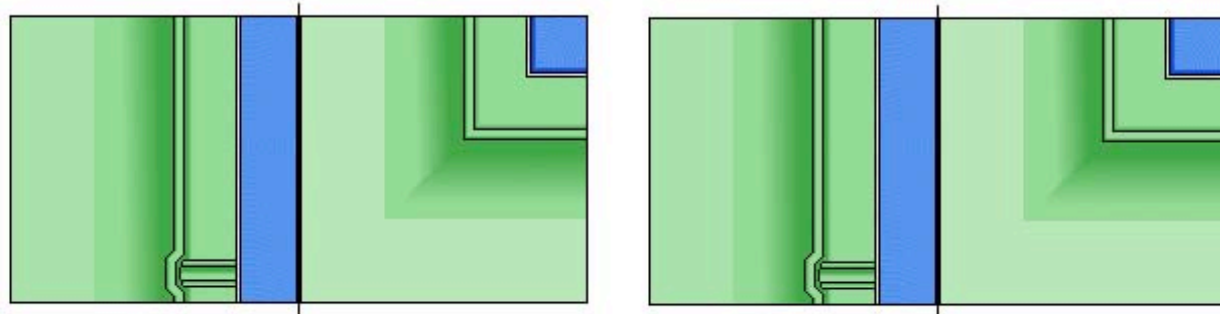
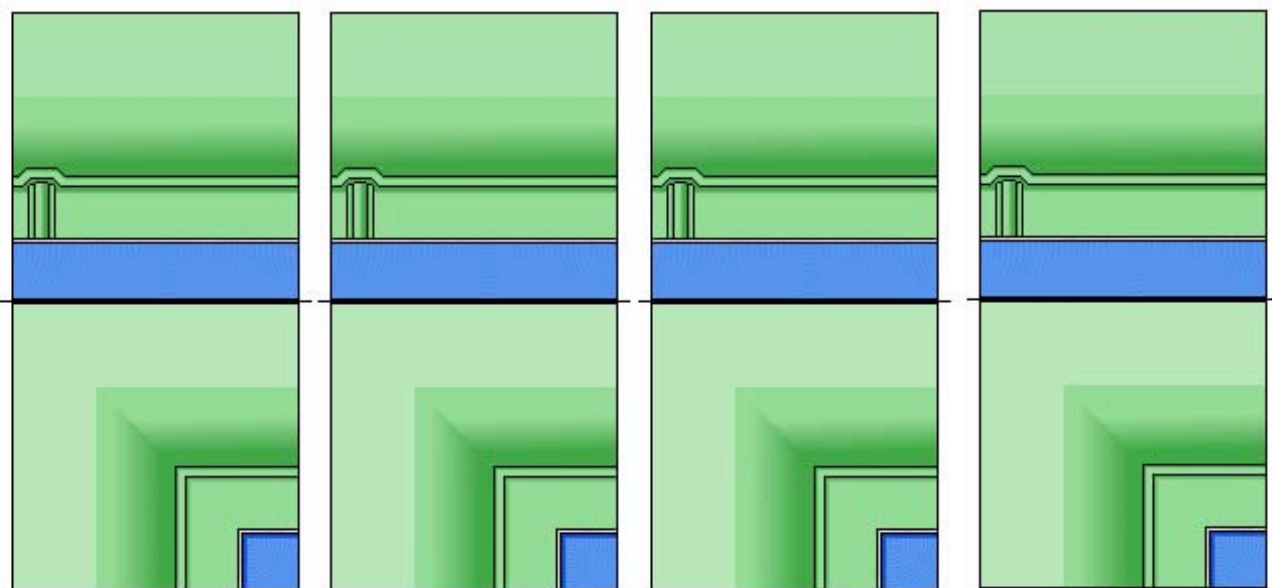
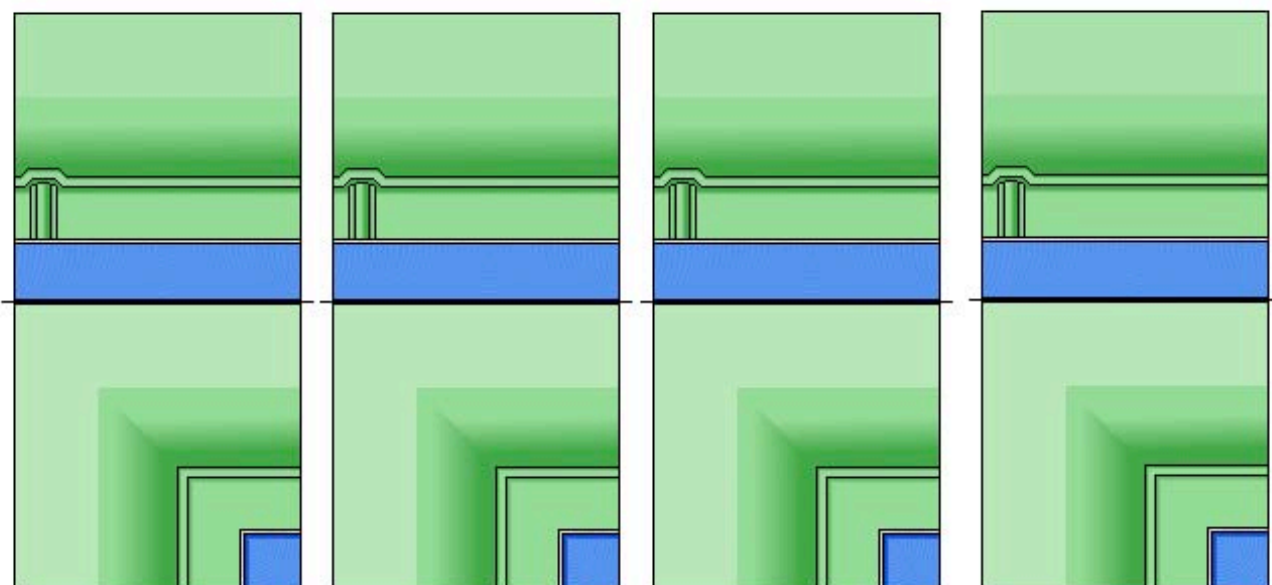
Black cards represent ammo and red cards represent supplies. All face cards and aces equal one point. Other cards equal whatever their point value is.

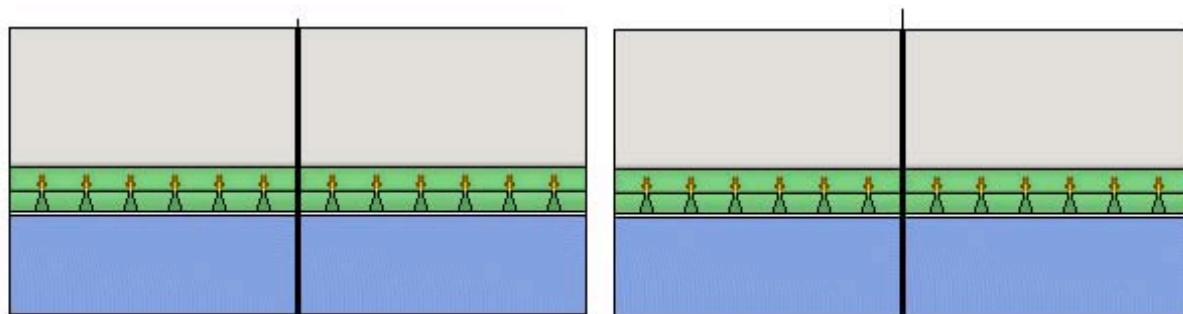
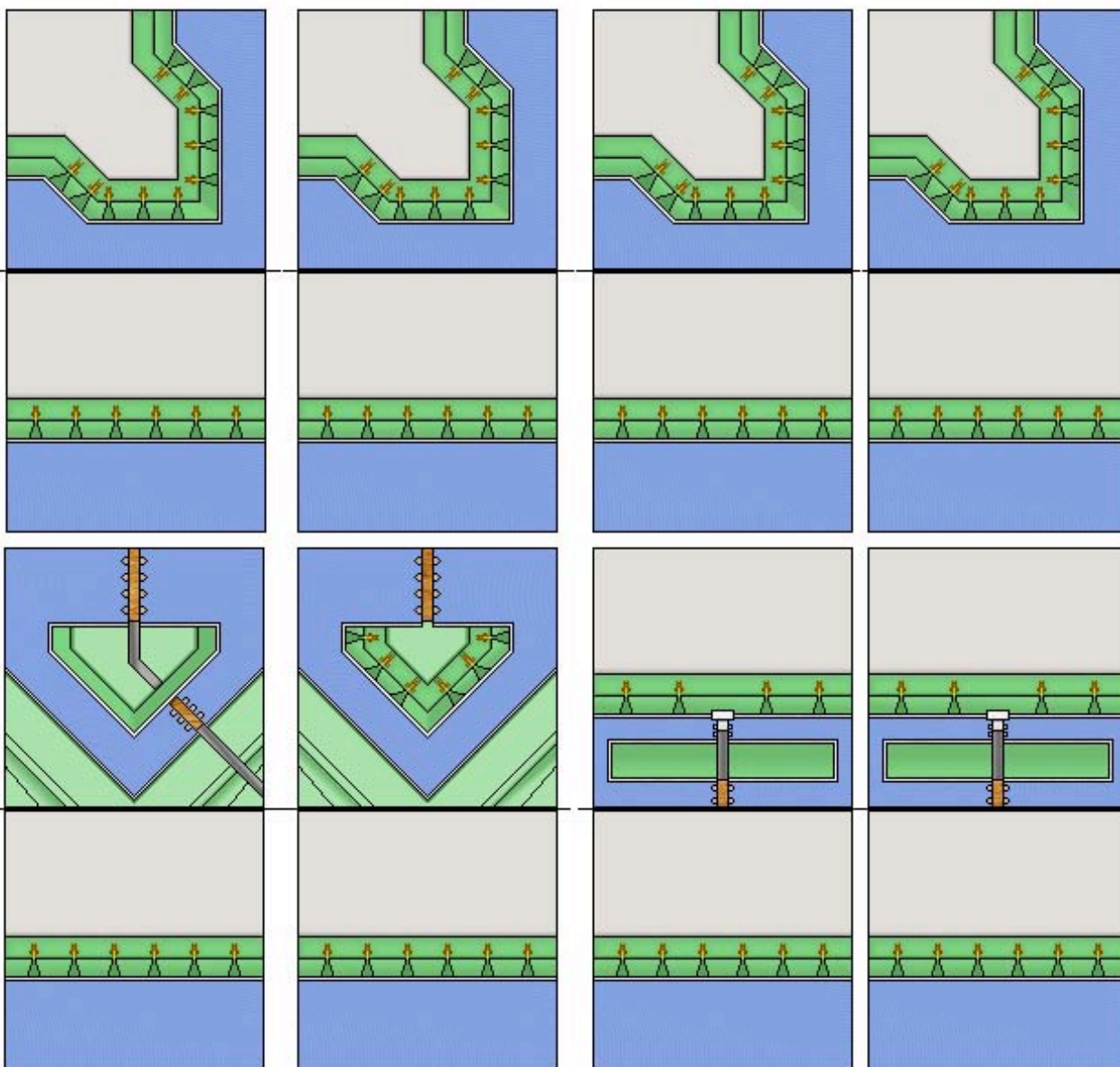
11. Honor and Winning - Winning is not determined by taking the fortress. It is assumed for the purpose of the game that, eventually the attacker will force the defender to capitulate. The game end as soon as the attacker either breaches two fortress walls, or takes a ravelin and holds it for one complete turn, or the defender runs out of supplies. The defender can surrender at any time before this but there are certain penalties for doing so.

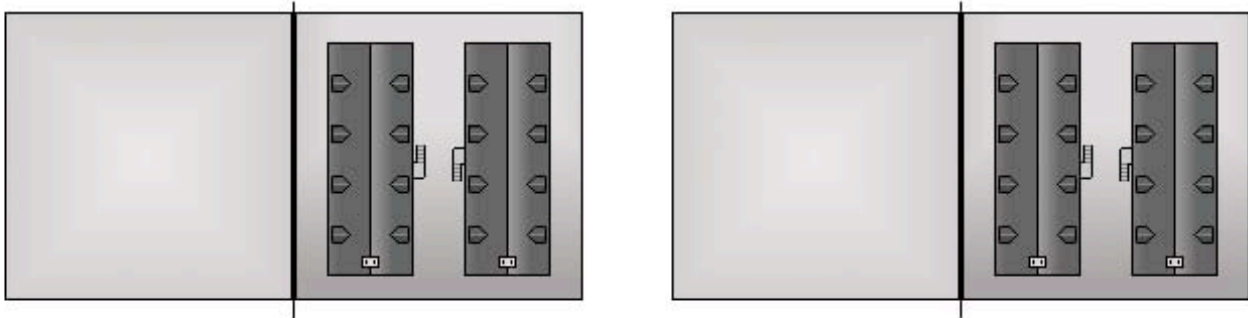
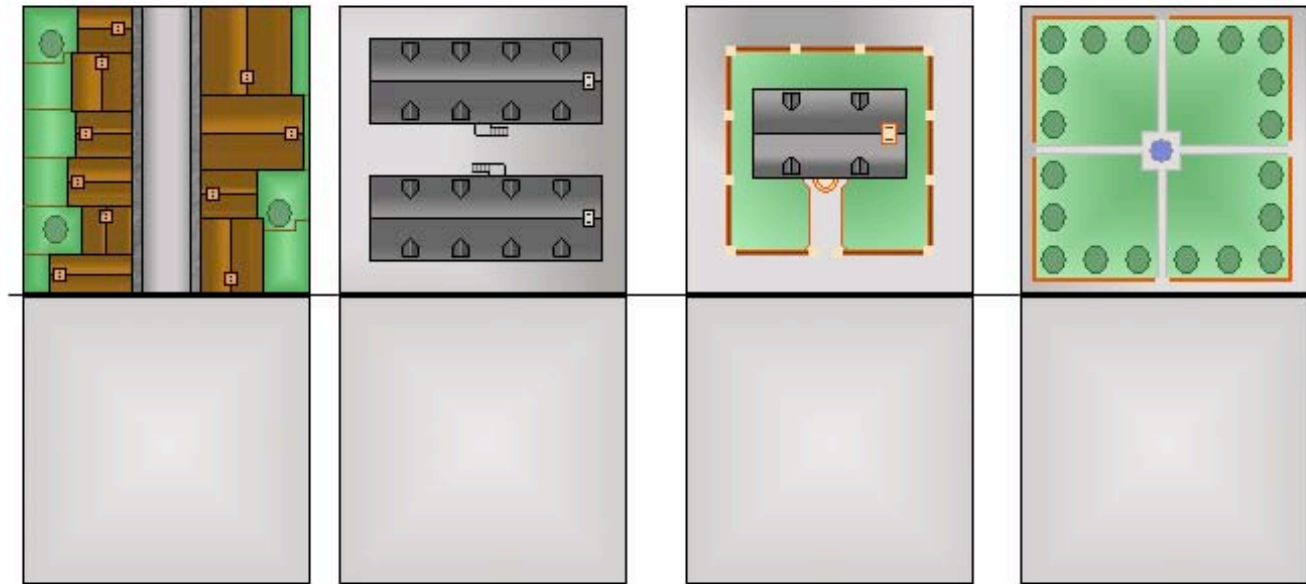
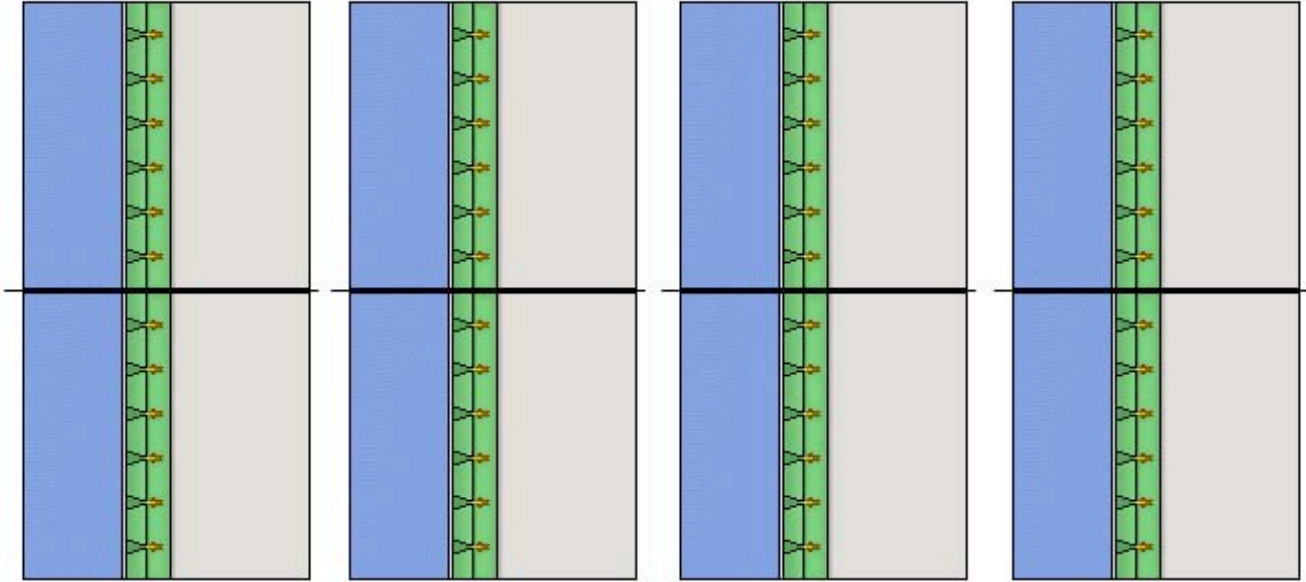
Winning is determined by how well you conducted yourself during the siege. How hard your troops fought and how long it took for the siege to be completed. During the honor phase, both sides tally up the amount of honor points gained that turn. Both side use the honor track on the org chart to keep track of their accumulated honor points. Keep this hidden from your opponent. The chart below illustrates the honor gained or lost during the game.

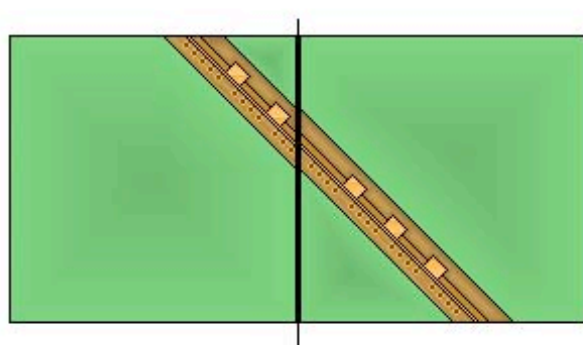
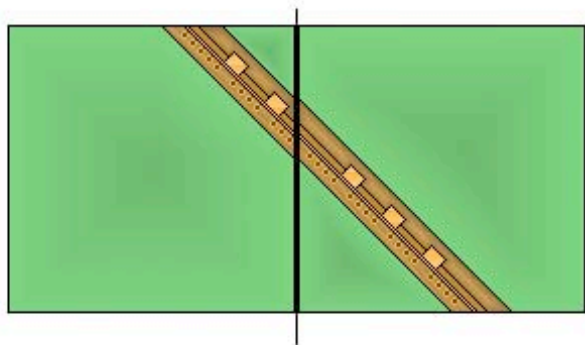
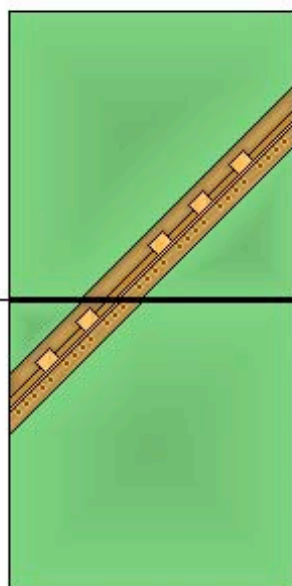
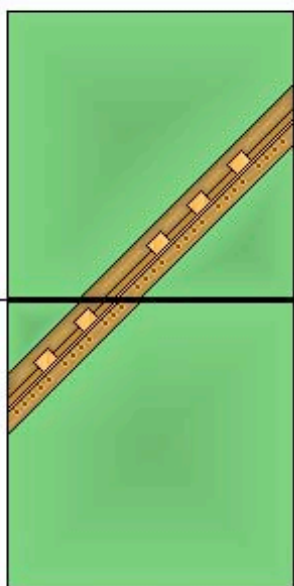
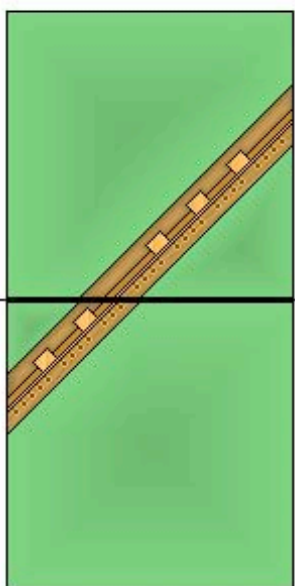
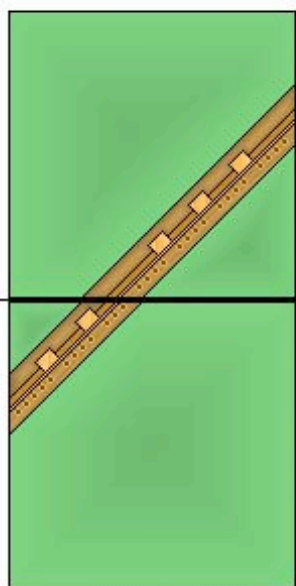
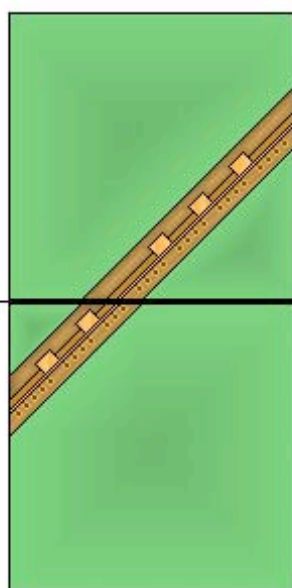
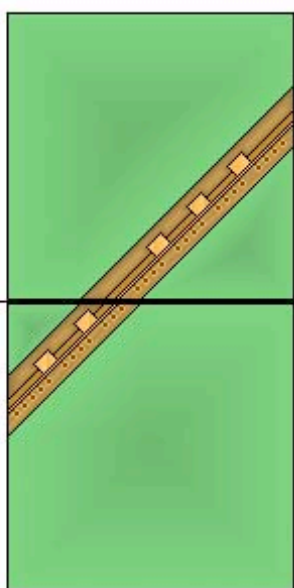
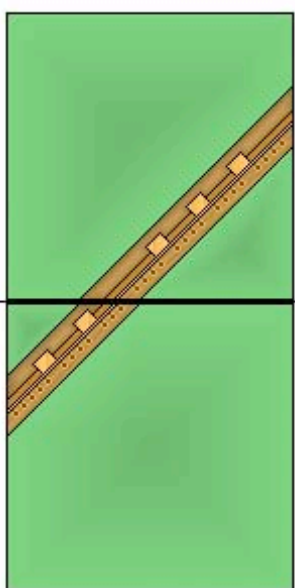
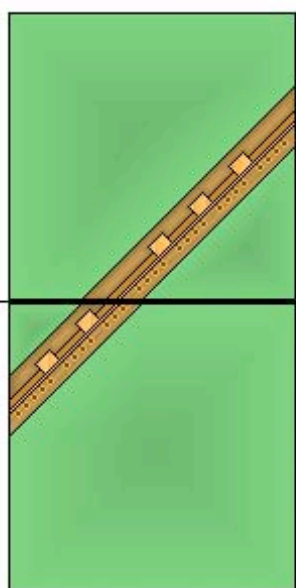
Action	Attacker	Defender
Strength point eliminated	1	1
Damage point caused	1	1
Successful Assault / Sortie	3	3
Gun Grew SP Eliminated	2	2
Pioneer SP Eliminated	2	2
Wall Breached	5	-
Each Sec. of Covered Way Taken	2	2
Gun Emplacement Dest.	-	2
Ravelin taken or retaken	10	10
Surrender before turn 10	-	-25
For each turn after 20 the Garrison holds out	-1	2
Run out of Ammo	-10	-2

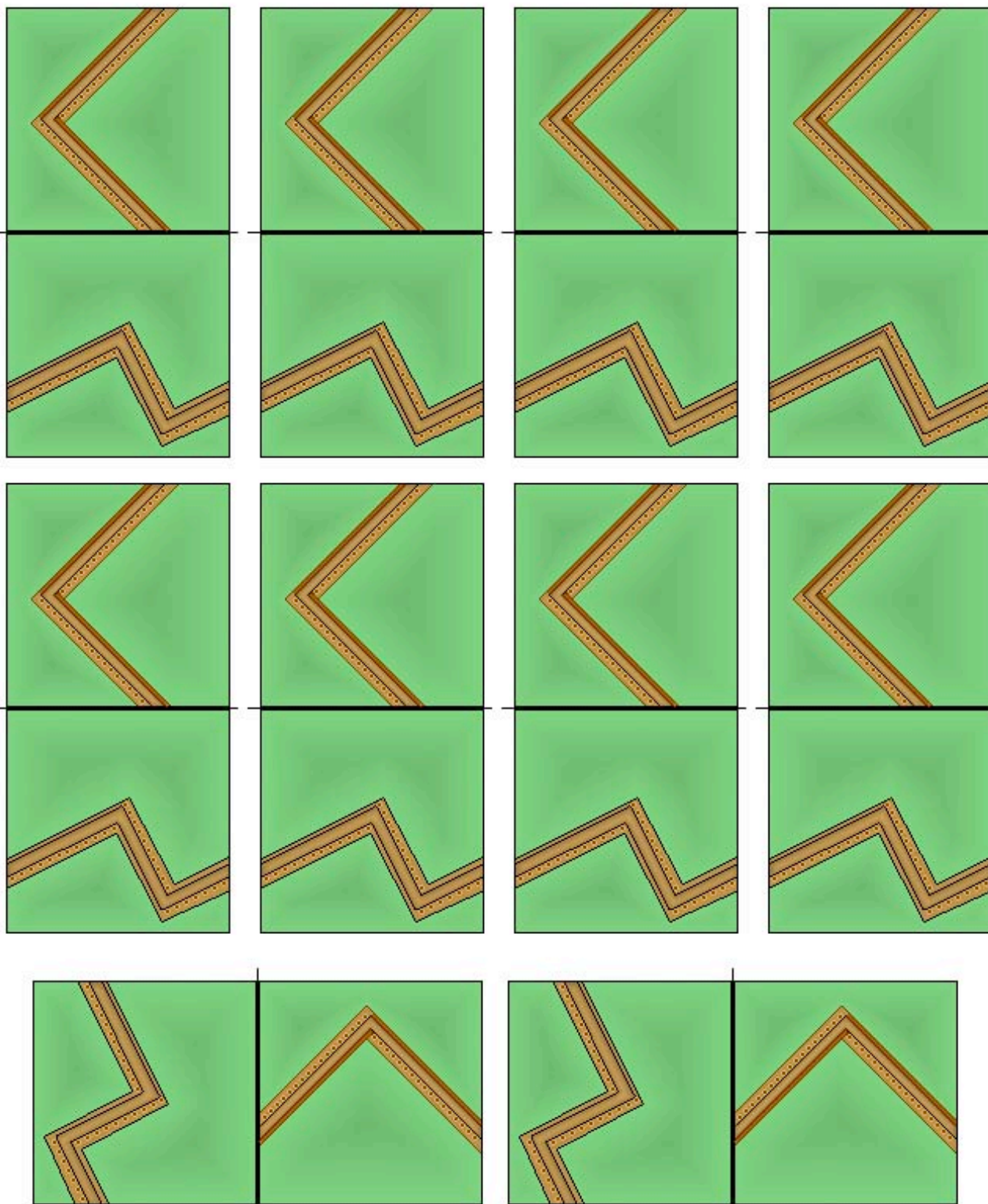


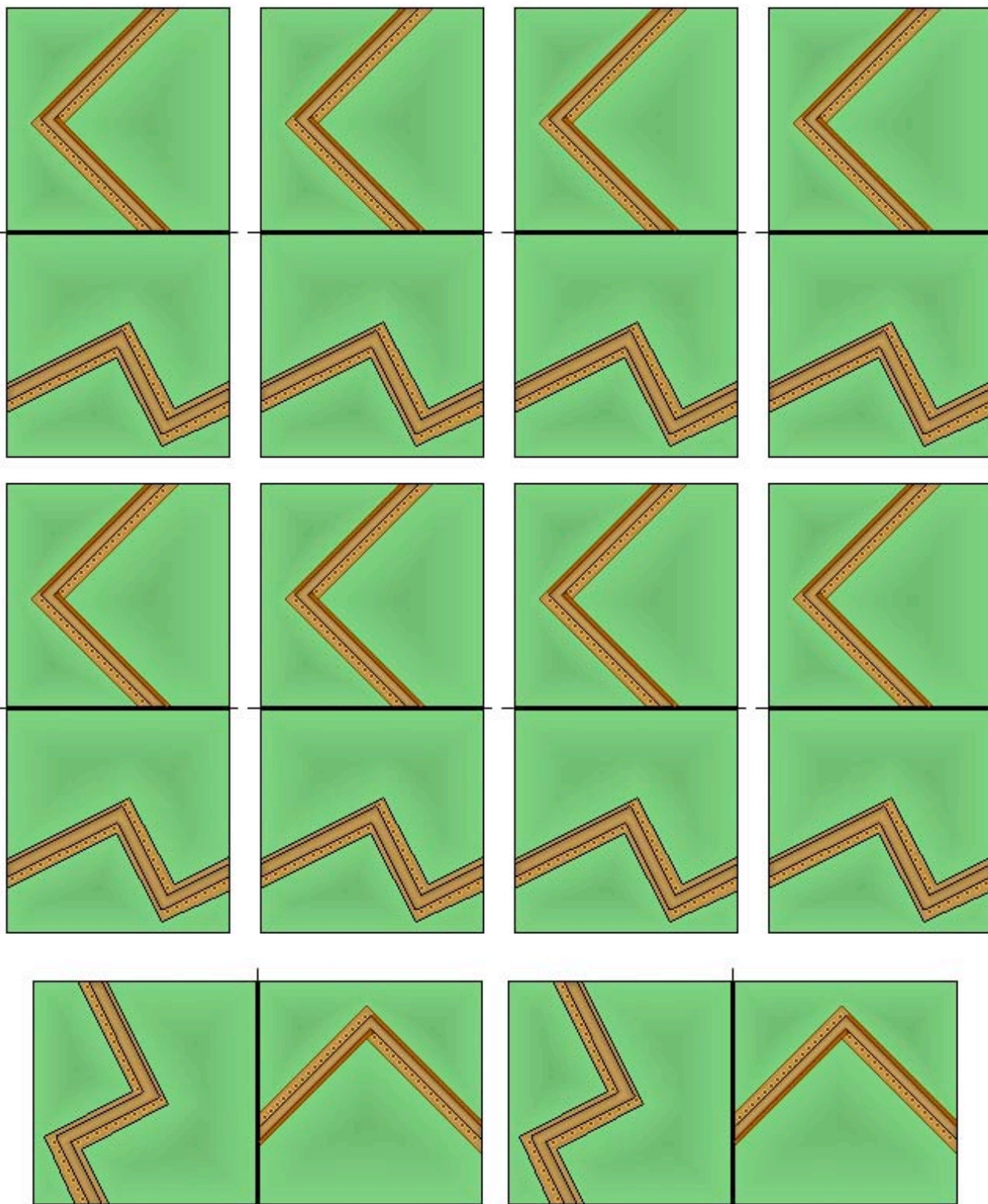


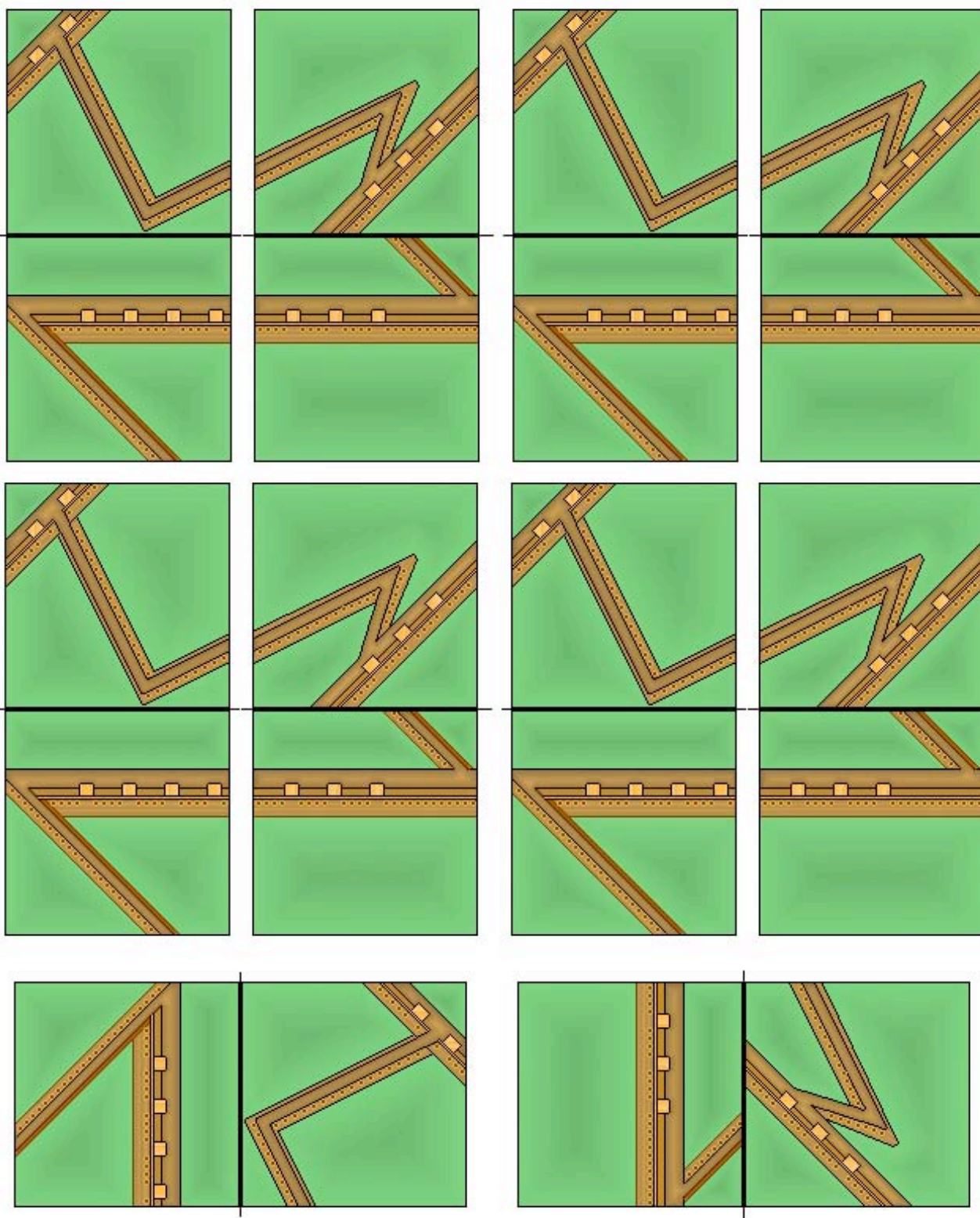


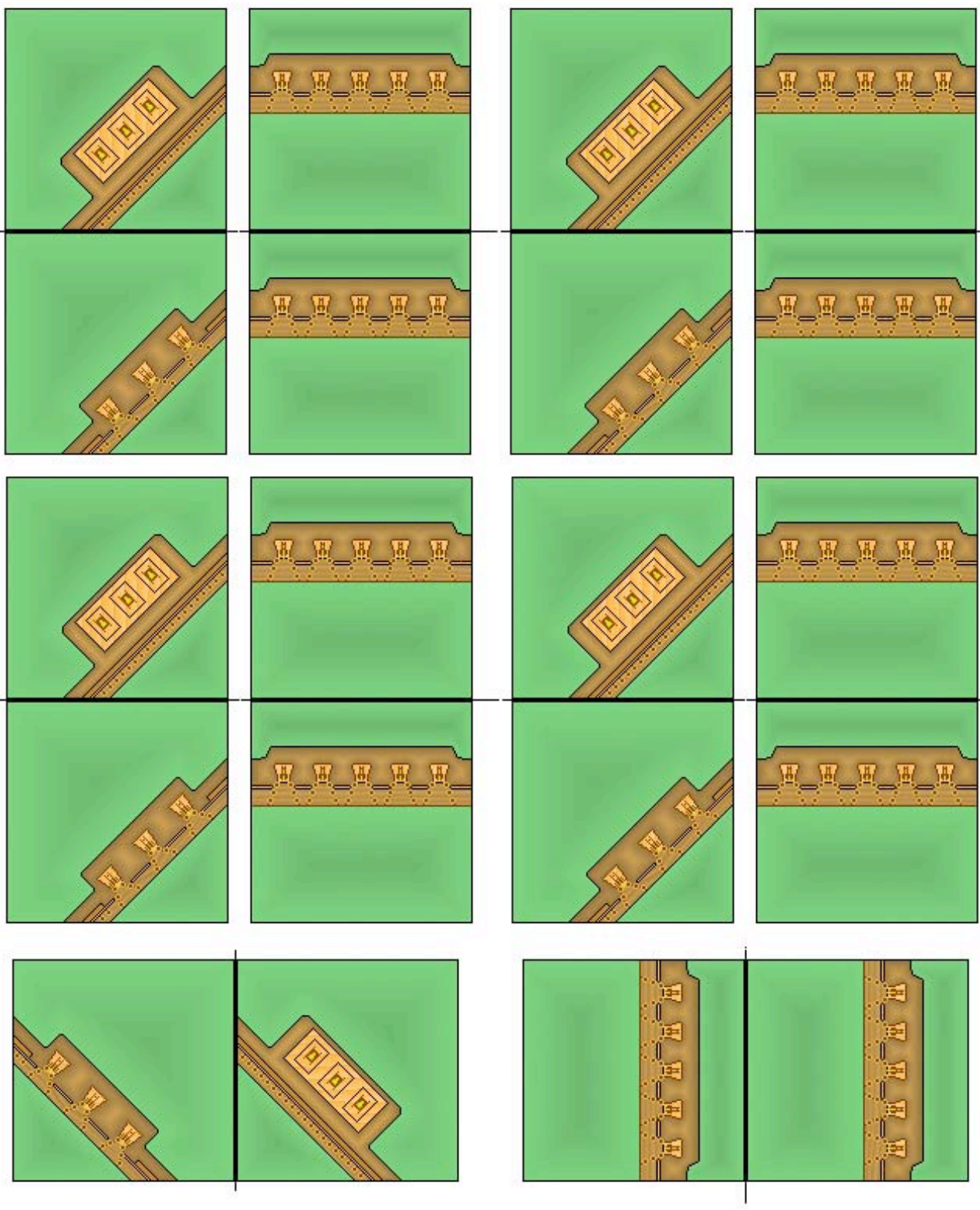


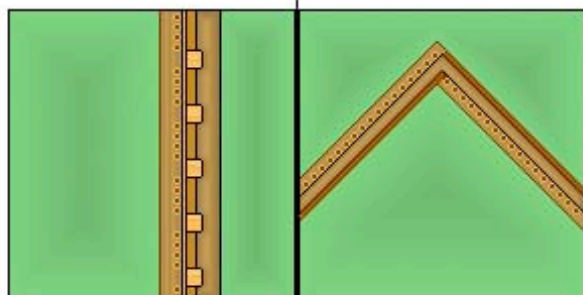
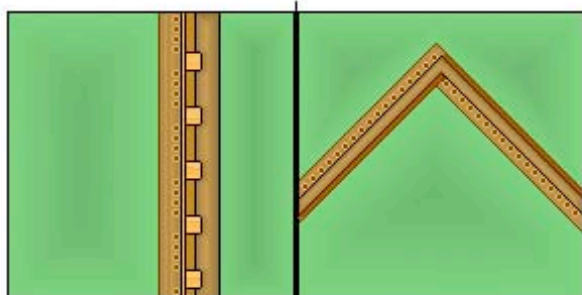
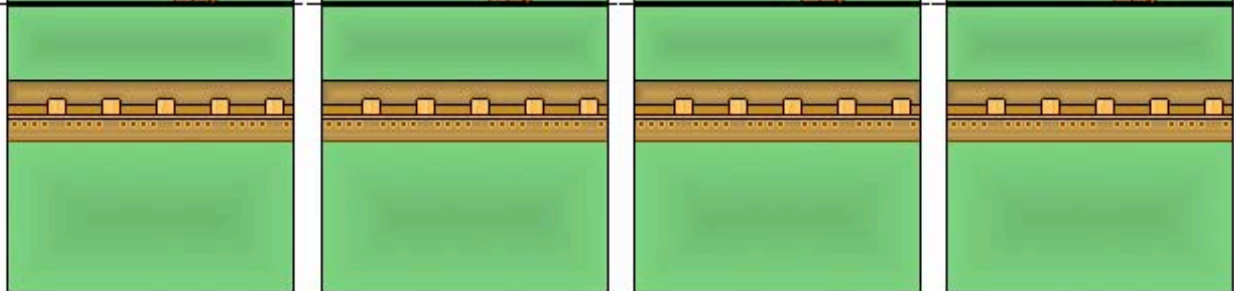
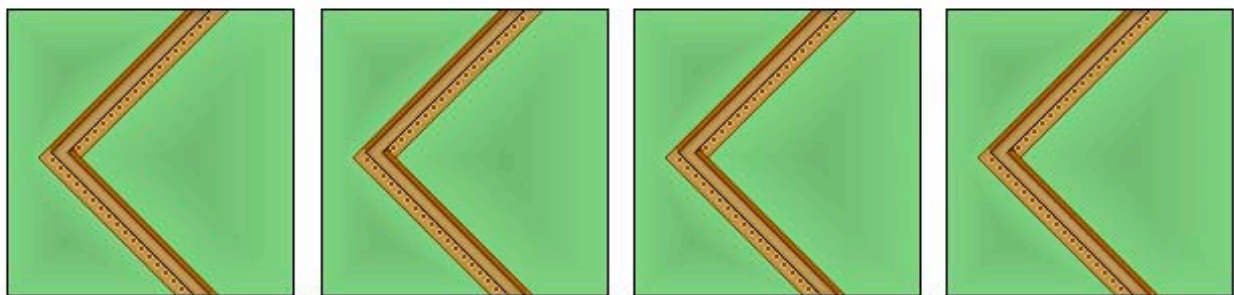
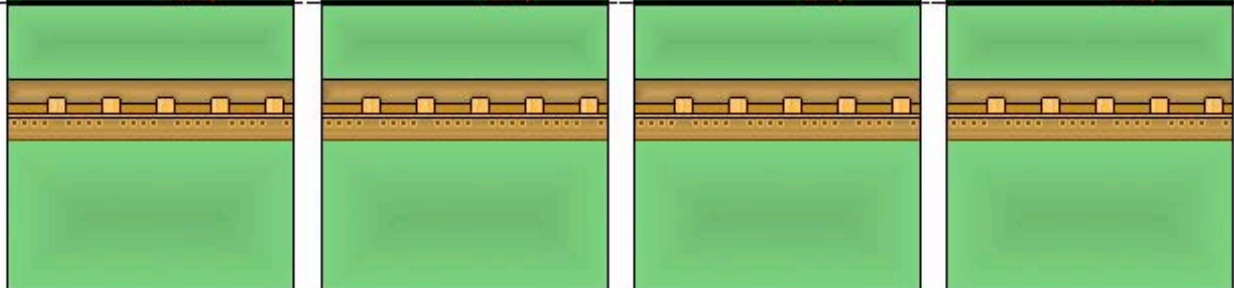
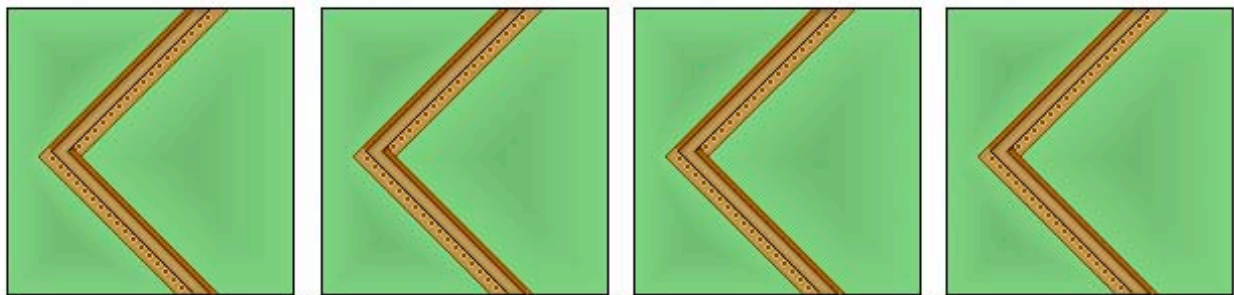

























































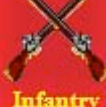















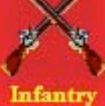



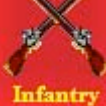





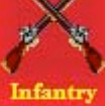

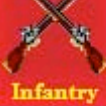

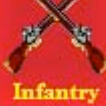





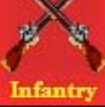










































































































































































































































































	 Infantry		 Infantry		 Infantry		 General		 Pioneers
	 Infantry		 Infantry		 Infantry		 Colonel		 Pioneers
	 Infantry		 Infantry		 Infantry		 Colonel		 Pioneers
	 Infantry		 Infantry		 Infantry		 Colonel		 Pioneers
	 Infantry		 Infantry		 Infantry		 Major		 Pioneers
	 Infantry		 Infantry		 Infantry		 Major		 Pioneers
	 Infantry		 Infantry		 Infantry		 Major		 Pioneers
	 Infantry		 Infantry		 Infantry		 Major		 Pioneers
	 Infantry		 Infantry		 Infantry		 Major		 Pioneers
	 Infantry		 Infantry		 Infantry		 Engineer		 Pioneers
	 Infantry		 Infantry		 Infantry		 Engineer		 Pioneers

[illegible]

[illegible]

Damage 3	Damage 4	Damage 5	Damage 6	Leadership Modifier 0	Leadership Modifier 1	Leadership Modifier 2	Leadership Modifier 3		
Damage 3	Damage 4	Damage 5	Damage 6	Leadership Modifier 0	Leadership Modifier 1	Leadership Modifier 2	Leadership Modifier 3		
Damage 3	Damage 4	Damage 5	Damage 6	Leadership Modifier 0	Leadership Modifier 1	Leadership Modifier 2	Leadership Modifier 3		
Damage 3	Damage 4	Damage 5	Damage 6	Leadership Modifier 0	Leadership Modifier 1	Leadership Modifier 2	Leadership Modifier 3		
Damage 3	Damage 4	Damage 5	Damage 6	Leadership Modifier 0	Leadership Modifier 1	Leadership Modifier 2	Leadership Modifier 3		
Damage 3	Damage 4	Damage 5	Damage 6	Leadership Modifier 0	Leadership Modifier 1	Leadership Modifier 2	Leadership Modifier 3		
Damage 3	Damage 4	Damage 7	Damage 8	Leadership Modifier 0	Leadership Modifier 1	Rout	Retire		
Damage 3	Damage 4	Damage 7	Damage 8	Leadership Modifier 0	Leadership Modifier 1	Rout	Retire		
Damage 3	Damage 4	Damage 7	Damage 8	Leadership Modifier 0	Leadership Modifier 1	Rout	Retire		
Damage 3	Damage 4	Damage 9	Damage 10	Leadership Modifier 0	Leadership Modifier 1				
Damage 3	Damage 4	Damage 9	Damage 10	Leadership Modifier 0	Leadership Modifier 1				

	 Infantry		 Infantry		 Infantry		 Infantry		 General
	 Infantry		 Infantry		 Infantry		 Infantry		 Colonel
	 Infantry		 Infantry		 Infantry		 Infantry		 Colonel
	 Infantry		 Infantry		 Infantry		 Infantry		 Colonel
	 Infantry		 Infantry		 Infantry		 Infantry		 Major
	 Infantry		 Infantry		 Infantry		 Infantry		 Major
	 Infantry		 Infantry		 Infantry		 Infantry		 Major
	 Infantry		 Infantry		 Infantry		 Infantry		 Major
	 Infantry		 Infantry		 Infantry		 Infantry		 Major
	 Infantry		 Infantry		 Infantry		 Infantry		 Engineer
	 Infantry		 Infantry		 Infantry		 Infantry		 Engineer

	 Gun Crew		 Gun Crew		 Pioneers	Honor 1	Honor 10	Morale	Morale
	 Gun Crew		 Gun Crew		 Pioneers	CE	CE	Honor 1	Honor 10
	 Gun Crew		 Gun Crew		 Pioneers	 1 Ammo	 2 Ammo	 3 Ammo	 4 Ammo
	 Gun Crew		 Gun Crew		 Pioneers	 1 Ammo	 2 Ammo	 3 Ammo	 4 Ammo
	 Gun Crew		 Gun Crew		 Pioneers	 1 Ammo	 2 Ammo	 3 Ammo	 4 Ammo
	 Gun Crew		 Gun Crew		 Pioneers	 1 Ammo	 2 Ammo	 3 Ammo	 4 Ammo
	 Gun Crew		 Gun Crew		 Cavalry	 1 Ammo	 2 Ammo	 3 Ammo	 4 Ammo
	 Gun Crew		 Gun Crew		 Cavalry	 1 Ammo	 2 Ammo	 3 Ammo	 4 Ammo
	 Gun Crew		 Gun Crew		 Cavalry	 1 Ammo	 2 Ammo	 3 Ammo	 4 Ammo
	 Gun Crew		 Gun Crew		 Cavalry	 1 Ammo	 2 Ammo	 3 Ammo	 4 Ammo
	 Gun Crew		 Gun Crew		 Cavalry	 1 Ammo	 2 Ammo	 3 Ammo	 4 Ammo



Manning Walls

Manning Guns

Guard Duty

Sortie

Construction

Covered

Combat Effectiveness

0

1

2

3

4

5

6

7

8

9

Honor

0

1

2

3

4

5

6

7

8

9

Manning Trenches

Manning guns

Guard Duty

Construction

Assault

Foraging

Morale

0

1

2

3

4

5

6

7

8

9

Honor

0

1

2

3

4

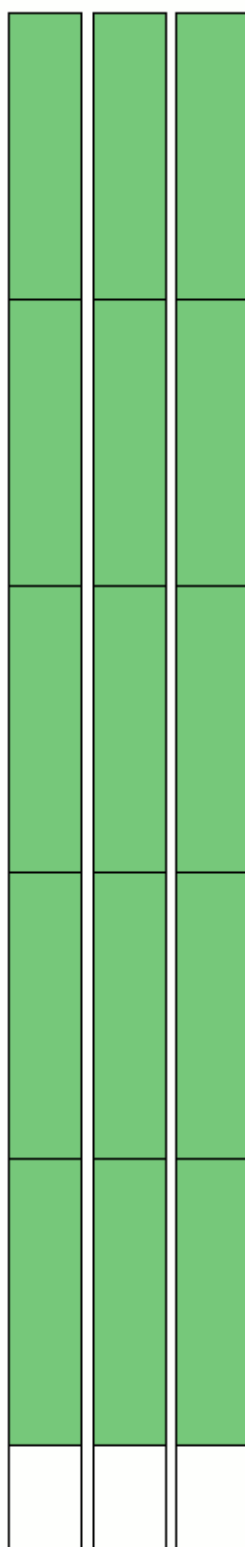
5

6

7

8

9



Terrain				
Trenches			Saps	
Sap Entrance			Ravelins	
Sap Exit			Bastion	
Gun Emplacements			Gatehouse	
Covered Way			Wall	

Counters			
Engineer		Pioneer	
Major		Colonel	
Infantry		Cavalry	
General		Gun Crew	

Howitzer		Mortar	
Shell		Dud	
Fire		Breach	
Mine		Ladder	
Gun Damage		Ammo	
		Fascine	

