

Gunpowder on MYSTARA

Gunpowder-using siege weapons is a novelty in the Known World since 1014 AC. An obscure Cleric from the Heldannic Order, Brother Berthold Schwartz of Freiburg (now deceased), claimed to be the inventor of gunpowder. That can't be proved since it appeared in various areas almost at the same time. Of course, this is reason enough for the kindly Heldannic bunch to feel that all the other nations have no right to use this holy weapon sent by Vanya. It would seem that gunpowder is a byproduct of the Great War between Thyatis and Alphatia.

The nations that have access to gunpowder could be Thyatis, Karamaikos, the Heldannic Knights, Darokin, Rockhome, and faraway Ochalea. Glantri, of course, would probably seek to have every speck of this despicable, non-magical (as they see it) filth scoured from the surface of Mystara (*"Peh! There isn't enough of this evil powder in King Stefan's Mad Mary to rival our Glantrian fireballs!"*). Between these two extremes lie the "have-nots." Some don't really care or aren't wealthy enough for this kind of novelty (like Ierendi, Minrothad Guilds, Aengmor, Five Shires, Ethengar, Northern Reaches, Ylaruam, and Wendar), but might be able to acquire it if needed. A host of others are frothing at the mouth for the skills and secrets necessary to create the precious gunpowder and the weapons that utilize it. In the latter group would fall all Humanoids, Hule, and most of the Isle of Dawn nations. None of them would be above kidnapping, blackmail, and other treachery to acquire what they want. Much like the style of the medieval world, Known World cannons would probably be delicately carved and painted in the bright heraldic colors of their owners. Pennants would be added to identify the commanders. All this could be very colorful, except that gunpowder is still poorly understood. Its components, mixing techniques, and dosage vary from one alchemist to another.

The catch

The big risk of using gunpowder is that it can backfire. Anytime an unmodified result of 1 or 2 is rolled when firing a siege weapon, the cannon explodes causing within the indicated area an amount of damage equal to its Basic level of weapon mastery (no save). The handgun explosion effect is explained separately under its own entry.

General note on cannons:

The cost of ammunition varies with the size of the bombard. A pound of powder costs 5 gp. A mason is needed on site to carve stones to fit exactly the caliber of the canon (every gun has a different caliber).

Fire rates:

The firing rates are for siege situations, where artilleryists properly clean their guns and allow ample time for cooling. In an emergency, siege weapons can fire faster, **but catastrophic explosions would be more likely (on an unmodified result 1, 2, or 3 on an attack roll)**. In this case, a serpentine could fire as fast as a light catapult; a bombard could match a heavy catapult; a great bombard could fire as fast as a trebuchet. Weapon mastery never increases the firing rates of siege weapons, especially when gunpowder and overheated barrels are involved.

Missing a target:

When any artillery piece misses its target, use a conventional scatter diagram (a hex with its sides numbered 1-6) to see where the boulder actually hits. On a score of 1 on a d6, the boulder falls due north of the intended target. On a 2, it falls northeast, on a 3, southeast, etc. Subtract the number the attacker rolled (after modifications) from the score needed to hit the target, and multiply the result by five. The total indicates how many yards in the given direction the boulder misses its target. If the projectile exceeds by 20 yards or more its maximum possible range as the result of a missed shot, assume the artillery crew somehow packed too much powder into the cannon! The chief artilleryist or the best crewmember must make a skill check (Intelligence score +1 for each level of weapon mastery above Unskilled). If it fails, the cannon's barrel cracks and needs to be sent back to a master engineer for repair (a score of 20 always fails). Repair requires a full week (at the cost of one-quarter the original cost of the cannon). The cannon will blow up if used while damaged. Note that a cannon can't hit itself or something behind its own position! If this happens, reroll the direction of the error. A projectile, however, could conceivably fall as little as a yard away from the cannon's muzzle as the result of a missed shot (to the vast relief and amusement of the enemy).

Building cannons:

These novelties require the services of a specialized engineer. The engineer must have the skill to build cannons. The initial requires three skill slots. The skill is based upon Intelligence with a -5 penalty. The cannon must be fired (usually in combat, by its artillery crew) to find out whether it was properly built. If the engineer had succeeded the skill roll, then the cannon fires normally. If not, treat as if the artillery crew's hit roll was a 1 (i.e., the gun blows up). If the attack roll was indeed 1, double the damage from the explosion.

The engineer can build iron pots, serpentes, and veuglaires without any further penalty. Each one successfully built reduces the engineer's skill penalty by 1 at that specific type of cannon. For example, an engineer who's already built three functioning serpentes gets -2 instead of -5 the next time he builds a serpentine. Any successes beyond five are ignored for each particular type of can none. It takes a month to build an iron pot or small bombard.

The engineer can build full-sized bombards with an extra penalty of -5 to skill checks, in addition to any penalties he might still have with smaller artillery pieces (add all penalties existing for iron pots, serpentes, and veuglaires). As with smaller cannons, this penalty can be reduced by the number of full-size bombards successfully built. Bombards require two months for their construction.

Great bombards receive an extra -10 penalty to the skill check. This penalty can never be reduced. Great bombards require six months for their construction. Full payment is generally required prior to construction. However, if a bombard blows up on the first attempt to use it, it is customary for the master engineer to repay a fine worth 20% of the whole construction fee.

Gunpowder quality:

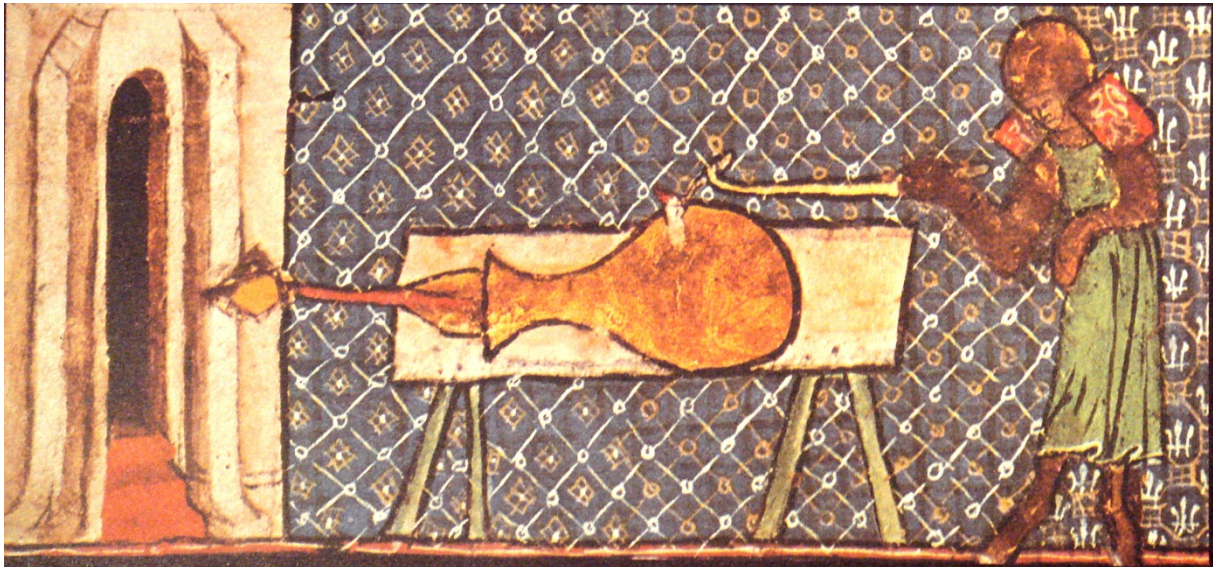
There are varying degrees of quality for gunpowder that are never apparent at the time of purchase. The reason to this is twofold. First and foremost the magical aura of Mystara distorts the chemical/alchemical compounds and its effects. Due to this gunpowder can't be used in non-magical areas or on the Day of Dread. The second reason is that each batch of compounds varies, not only per alchemist creating it, but also per batch, as the components are always impure, mixed and polluted somehow. **Poor gunpowder will misfire on a roll one greater than what would normally cause a handgun or a siege weapon to explode.** For example, on a roll of 3, a bombard with poor gunpowder would misfire. Misfiring does not necessarily cause an explosion-instead nothing happens for 1d10 rounds. If the powder is of superior quality, the chance for explosion is reduced by one. A siege weapon thus would only explode on an attack roll of 1. In the case of the handgun, replace the explosion with a misfire, as explained above. One is likely to get poor-quality powder from an unscrupulous alchemist or from an abandoned armory. An old powder keg found in a dungeon will probably fall into his category. Powder from Ochalean alchemists is reputed to be excellent—although this could be nothing but rumor! Specialists known to produce such superior gunpowder often charge twice the regular price.

At the end of the indicated round, roll 1d6.

- 1-2 the weapon does indeed explode (as if an attack roll of 1 had been rolled).
- 3-4 the weapon fires normally.
- 5-6 the powder is bad and does not ignite at all. The weapon must be reloaded.

War Machine effects:

Although expensive to build and not necessarily very efficient, cannons do have a greater value in the War Machine mass-combat system compared to traditional artillery. At the end of each day, roll 1d20. On a score of 1, one or more cannons have exploded (2d10% of all cannons, rounded up). The destroyed cannons are chosen at random, and 1d4 crewmembers per destroyed cannons are permanently lost (includes the artillery chief on rolls of 4). With superior-quality gunpowder, only 1d10% of the cannons explodes. With poor gunpowder, 3d10% of the cannons explodes. Exploded cannons do not affect the BR anymore of course.



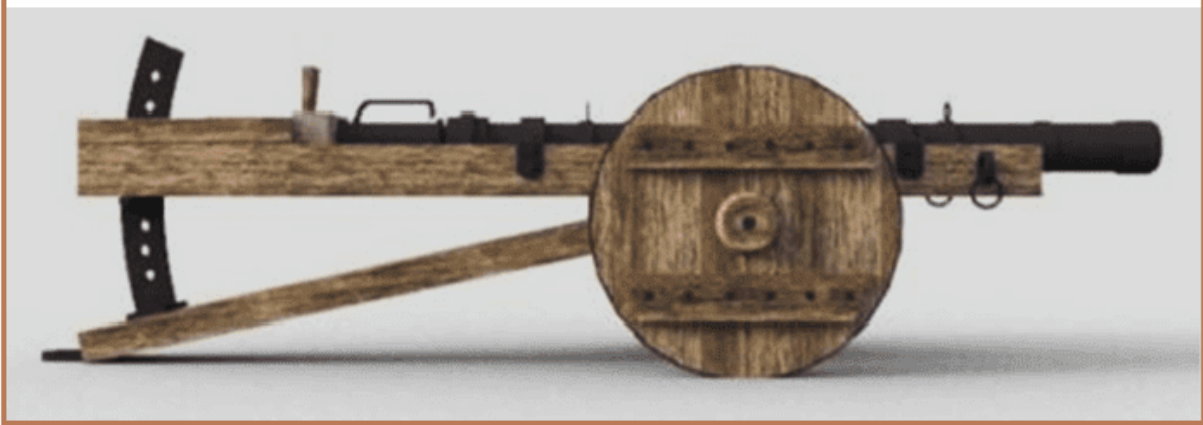
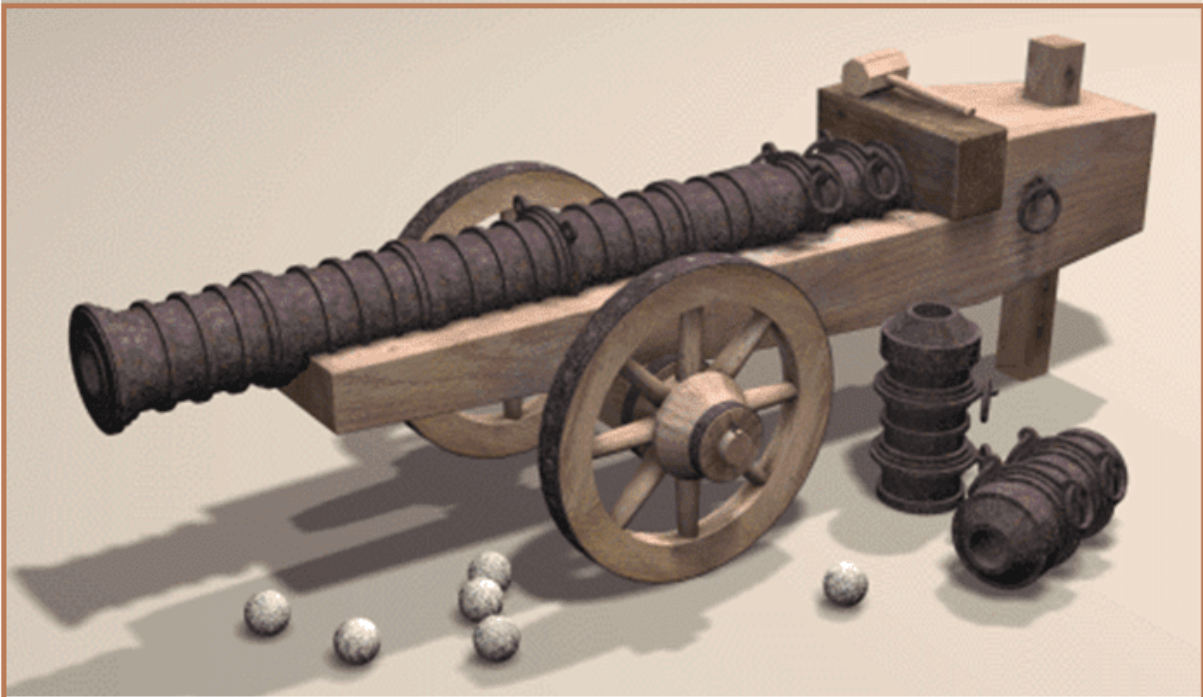
This is an early version of the contemporary mortar weapon. It looks like a fat, vase-shaped cannon, almost wider than it is long (about 3' long). It fires a 20-pound projectile with two pounds of powder.

Iron pot (pot de fer)				
P=L	BS	90/180/270	1d8+6	— —
	SK	110/190/270	1d10 + 7	— Stun (S/M)
	EX	130/200/270	2d6+7	— Stun (S/M/L)
	MS	150/210/270	P: 2d8+8	— Stun(S/M)+ (S/M)
			S: 1d12 + 9	
	GM	180/220/270	P: 2d10+10	— Stun(S/M)+ (S/M/L)
			S: 2d8 + 10	
Cost;	500gp	Enc;	5000cn	
Towing enc.;	600cn	Explode range;	20'	
AC;	0	HP;	18	
Full Crew;	4	BR;	+6	
Ammo Cost/Week	2800gp	Single shot;	10gp	
Minimum range;	50	Fire rate;	1/Turn	



This is a small cannon, about 6' long with a 6" caliber, sometimes mounted on wheels. It shoots a 40-pound projectile with four pounds of powder. Intermediate cannons, like the medieval veuglaires, also existed, with an approximate length of 10' and a 10" caliber. The latter usually sat on a heavy set of timber to absorb its recoil.

Small bombard (Serpentine)			
P=L	BS	120/240/360	2d4+7 — —
	SK	150/255/360	2d8+8 — Stun (S/M)
	EX	180/270/360	3d6+9 — Stun (S/M/L)
	MS	210/285/360	P: 2d10+11 — Stun + (S/M)
			S: 3d6 + 10
	GM	240/300/360	P: 3d8+12 — Stun + (S/M/L)
			S: 3d6 + 11
Cost;	1000gp	Enc;	10.000
Towing enc.;	1200cn	Explode range;	30'
AC;	0	HP;	24
Full Crew;	4	BR;	+8
Ammo Cost/Week	5600gp	Single shot;	20gp
Minimum range;	60	Fire rate;	1/Turn
+100 gp if mounted on a two-wheel carriage.			
+20 gp if fitted with a small wooden mantlet to provide some overhead protection from missile weapons (arrows and crossbow bolts shot from long range). It is similar to a shield (AC +1) and protects the crew operating the serpentine.			



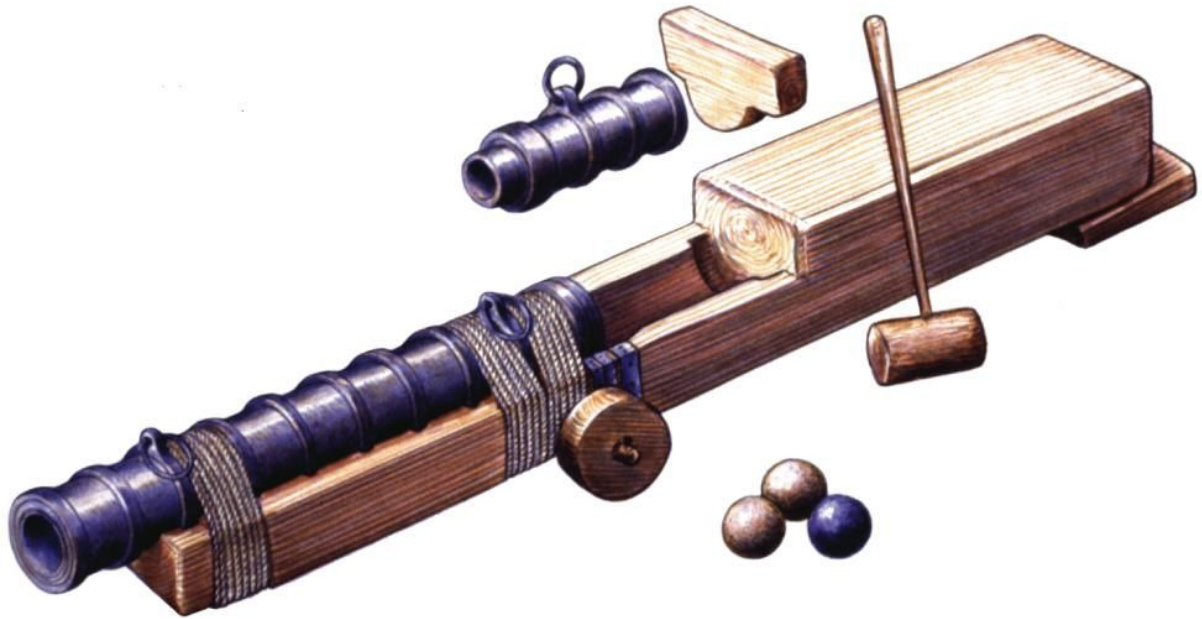
This is a small cannon, about 10' long with a 10" caliber, sometimes mounted on wheels. It shoots a 40-pound projectile with four pounds of powder. They usually sit on a heavy set of timber to absorb its recoil.

Small bombard (Veuglaire)

P=L	BS	120/240/360	2d4+12	—	—
	SK	150/255/360	2d8+13	—	Stun (S/M)
	EX	180/270/360	3d6+14	—	Stun (S/M/L)
	MS	210/285/360	P: 2d10+16	—	Stun + (S/M)
			S: 3d6 + 15		
	GM	240/300/360	P: 3d8+17	—	Stun + (S/M/L)

Cost;	1800gp	Enc;	15,000cn
Towing enc.;	1800cn	Explode range;	40'
AC;	0	HP;	30
Full Crew;	4	BR;	+8
Ammo Cost/Week	5600gp	Single shot;	20gp
Minimum range;	60	Fire rate;	1/Turn

+100 gp if mounted on a two-wheel carriage.
 +20 gp if fitted with a small wooden mantlet to provide some overhead protection from missile weapons (arrows and crossbow bolts shot from long range).
 It is similar to a shield (AC +1) and protects the crew operating the serpent.



This is a large cannon, about 15' long, with a 20" caliber, capable of shooting a 300-pound projectile with 45 pounds of powder. It needs two wagons with eight horses/oxen to carry. At least 70 people are needed to load or unload the bombard from its carriage.

Bombard			
P=L	BS	140/280/420	d12+13 — —
	SK	170//295/420	2d8 + 14 — Stun (S/M)
	EX	200/310/420	2d10+15 — Stun (all sizes)
	MS	230/325/420	P: 2d12 + 16 — Stun + (S/M)
			S: 2d10 + 16
	GM	260/340/420	P:5d6+16 — Stun + (S/M/L)
			S: 3d10 + 12
Cost;	2500gp	Enc;	80.000cn
Towing enc.;	6500cn	Explode range;	60'
AC;	-2	HP;	30
Full Crew;	6	BR;	+12
Ammo Cost/Week	45.000gp	Single shot;	450gp
Minimum range;	70	Fire rate;	1 / 3 Turns



A Great Bombard is a “unique” weapon, a one-of-a-kind in a kingdom. When referring to it, one should give it a proper name like “King Karamaikos’ Mad Mary” or “the Great Bombard of Freiburg,” etc. The one described in this article, a 20’- long cannon weighing at least 10 tons, shoots a huge, 1,200-LBS boulder up to 500 yards, with an extravagant amount of powder for each shot (at least 240 LBS, no one said that big guns have to be efficient). Other gargantuan bombardars can be built to fire smaller projectiles up to a mile away, but at half damage (rounded

down). After each shot, a cone-shaped area about 30 yards long by 20 yards wide immediately in front of the Great Bombard’s mouth fills with a thick, skill smoke that blocks normal sight. It takes three rounds to clear the air with a normal breeze. The horrendous thunder of a Great Bombard can be heard 10 miles away, possibly frightening the enemy. In addition to its special Stun and effects, a Great Bombard also requires one Morale Check per day from all enemy troops (of less than one full HD each) within its field of fire and range. The Morale Check is made at the moment of the first shot each day. Horses are particularly vulnerable to the thunderous detonation. They become skittish within a mile of the gun and remain so for a whole turn after the detonation (no cavalry charges, orderly lines, and timely maneuvers possible during that time). Projectiles shot from a great bombard have an area of effect of 20’ radius from the point of Impact. All objects or creatures within that area of effect suffer 1d10 points of damage from flying debris (save vs. death ray for half damage). The great bombard requires 6 large wagons to transport and 40-50 yokes of draft horses or oxen. This includes its supply of powder, balls, lifting apparatus, heavy timber pieces and trestles to hold the bombard, spare part, tools, accessories, crews, etc. In order to unload the massive gun and position it, up to 200 people are needed. Such huge devices can move only at the rate of 16 miles a day by road. As with most bombardars, it is solidly tied to a bed of thick timber pieces to absorb the recoil. Beams and wedges are then needed to elevate and aim the bombard. The timber has to be repaired or replaced almost after every shot, and the bombard is then re-aimed before firing again.

Great bombard					
P=L	BS	200/400/600	3d8 + 10	—	—
	SK	250/425/600	3d10+10	—	Stun (S/M)
	EX	300/450/600	4d8 + 12	—	Stun (S/M/L)
	MS	350/475/600	P: 4d10+14	—	Stun(S/M/L) + (S/M)
			S: 3d12 + 14		
	GM	400/500/600	P:4d12+16	—	Stun (S/M/L) + (S/M/L)
			S: 3d12 + 16		
Cost;	5000gp	Enc;	200.000cn		
Towing enc.;	32.000cn	Explode range;	90'		
AC;	-2	HP;	40		
Ammo Cost/Week	60.000gp	Single shot;	1200gp		
Full Crew;	10	BR;	+18		
Minimum range;	150	Fire rate;	1 / Hour		

Weapon Table supplement

Weapon	Cost (gp)	Enc. (cn)	AC	HP	Full crew	Fire Rate	Ammo. Cost/Week
Springal	100	12,000	4	18	5	1/4 Rds.	3,000
Hand Gun	50	100	—	—	(1)	113 Rds.	N/A
Iron Pot	500	5,000	0	18	4	1/Turn	2,800
Serpentine*	1,000	10,000	0	24	4	1/Turn	5,600
Bombard	2,500	80,000	-2	30	6	1/½Hr.	45,000
G. Bombard	5,000	200,000	-2	40	10	1/Hour	60,000

* Add 100 gp if mounted on wheels (a two-wheel carriage). For another 20gp, a serpentine can be fitted with a small wooden mantlet to provide some overhead protection from missile weapons (arrows and crossbow bolts shot from long range). It is similar to a shield (AC +1) and protects the crew operating the serpentine.

Hand gun (*coulevrine-a'-main* or *hand-culverin*)

Mastery	Ranges	Damage	Defense	Special
P=H Basic	60/20/180	1d8+2	—	—
Skilled	75/130/180	1d10+2	H: +1AC/*	Double damage on 2.0
Expert	90/140/180	1d12 +2	H: +2AC/*	Double damage on 19-20
Master	105/150/180	P: 2d8 +4 S: 1d12+4	H: +2AC/*	Double damage on 18-20
Gd. Master	120/160/180	P: 3d6 +5 S: 2d6+5	H: +3AC/*	Double damage on 17-20

P = H: Primary target is a foe attacking with either hand-held or hand-thrown weapons.

S: Secondary target (monsters attacking with natural or missile weapons).

H: AC/*: AC bonus and number of times this AC bonus can be used against attacks from primary targets (once during the round the weapon is fired).

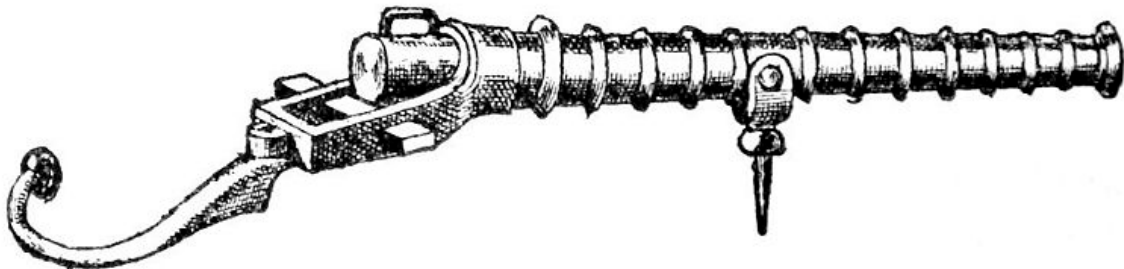
Note: This weapon is only listed here for reference. It is not a siege weapon. This ancestor of the arquebus requires two hands to fire. It looks like a bulky, metal tube (1" caliber) at the end of a wooden staff that the gunner holds under the arm when shooting. A slow burning match or cord is needed to fire the weapon. It can fire every three rounds, requiring two full rounds to reload, during which the user must not be interrupted or wounded. Weapon mastery does not improve its rate of fire.

On an unmodified hit roll of 1, the hand gun backfires, causing 1d6 points of damage to the user. The ammunition consists of a fine black powder produced by an alchemist and properly sized stone bullets, adding up to 10 gp for 20 shots. It can be used only by a fighter.

Double damage: If the attacker rolls the indicated attack score without modifications, damage is doubled.



Coulevrine à main (1440).



Coulevrine (1460).

Evolved Weaponry (from IM1 and Real World Dimension)

Because of rather strict laws regarding weaponry, most of the population of the city appears to be unarmed. Unknown even to the Immortals, the situation is quite the opposite; over 30% carry knives or daggers, over 50% carry minor assorted weapons (such as blackjacks, spear-like devices which

they claim are to deflect rain, tiny explosives, etc.), and 40% carry weapons of a new category called firearms.

Firearms are small machines designed to hurl specially constructed pellets at high speeds by means of controlled explosions. They come in many shapes and sizes, and can inflict damages from 1 to 144 points, depending on the weapon size and the mastery of the user.

Small hand-held firearms (handguns) inflict one die of damage, from 1d4 to 1d10, based on the size of the pellets used. They can be fired three times per round. Large handheld firearms (shotguns and rifles) inflict two dice of damage, from 2d4 to 2d10. They can be fired twice per round. A third category of larger and more complex firearms is used in warfare, and may inflict far more damage at similar rates, but these are irrelevant to the city and this scenario.

Any firearm user gains a +4 bonus to Hit rolls. Mastery of the weapons can add further bonuses, given on Firearms Table 2. Police officers are Skilled at least, and many are Experts or Masters of the weapons.

The base range of a small one-die firearm is 30/60/120 feet, or double that for a large two-die weapon. Ranges increase with levels of mastery, calculated by multiplying base ranges by a given factor from 2 to 5. For example, a character with Expert mastery in small arms has a range multiplier of 3, and so can fire effectively to 90/180/360 feet. Damages also increase with mastery, as given on Firearms Table 1.

Two special effects may occur if the unmodified Hit roll is high enough. Either effect can be avoided if a saving throw vs. Death Ray is successful. On a Hit roll of 16 or more, the victim may be Stunned for 1 round. A new save is required each round. The Stun continues until one is successful. On a Hit roll of 20, the victim may be instantly reduced to zero hit points. If the saving throw is successful, the victim takes normal damage (dropping to 1 hp at minimum), and is automatically stunned for 6-15 (1d10 + 5) rounds.

Any Immortal hit by a shot from a firearm may save vs. Physical Blow to take half damage. Possible stun and kill results apply normally, using the same saving throw.

Firearm users can only fire a limited number of pellets before reloading is required. The number varies from 4 to 8 for small arms, 2 to 20 for large ones. Reloading time is a fixed number of 1-4 or more rounds, depending on the size and type of ammunition required.

Anyone with Expert or greater proficiency may, if desired, choose to inflict minimum damage or to use a damage range of lesser mastery, to avoid slaying a victim.

Special equipment may be acquired for use with two-dice weapons (only) to increase the accuracy and effective range. These optical devices magnify the target image. Each is rated from 1 to 10; the rating applies as both a bonus to the Hit roll, and as an extra increment of range. For the latter, each point of rating adds 30/60/120 feet to the normal weapon range.

Any small hand-held firearm may be used as a blackjack, for identical damage and special effects. If the firing chamber is loaded at the lime, however, a successful hit may (50% chance) cause it to fire. Experienced police officers and criminals who use firearms usually make sure that the device has an empty chamber.

Firearms Table 1: Damages

Level of Mastery	Ammunition Size			
	Small	Medium	Large	Huge
Basic	1d4	1d6	1d8	1d10
Skilled	1d6	1d8	1d10	1d12
Expert	1d6 + 2	1d8 + 2	1d10 + 2	1d12 + 2
Master	1d6 + 4	1d8 + 4	1d10 + 4	1d12 + 4
G.Mas.	1d4 + 8	1d6 + 8	1d8 + 8	1d10 + 8

Firearms Table 2: Other Data

Level of Mastery	Hit Bonus	Range Factor	Special Effects
Basic	+4	1	None
Skilled	+5	2	2x Damage (19-20)
Expert	+6	3	3x Damage (19-20)
Master	+7	4	4x Damage (19-20)
G.Mas.	+8	5	4x Damage (17-20)

Basic ranges are 30/60/120 feet. All information applies to small firearms (handguns). For large hand-held firearms (shotguns and rifles), double all figures in Table 1 (and the range as well), but do not modify those in Table 2.

Firearms vs Magic

Firearms are rare in Outer Planes and other dimensional Planes because ammunition used may spontaneously explode in such areas. In Elemental and Ethereal planes, the chance is 50%; any planar border beyond the Ethereal from the Prime Plane adds another 5%. The chance is checked per ammunition unit (bullet) when it crosses the planar boundary.

Each explosion is a tiny *fire ball*, exploding in a 5-foot radius and inflicting 1-10 points of fire damage to each victim within it.

Each ammunition unit within the blast must be rechecked for explosion immediately, at the same chances as given above. The recheck is made only once, even if caused by multiple blasts.

The same chance of explosion is checked whenever surviving ammunition units are exposed to normal or magical fire of any sort, and to Dispel Magic. Any Anti Magic just nullifies the explosive powers and hence its functional use. Dimensional aberrations which produce Prime Planar characteristics also affect these ammunition units, improving their stability. Firearms may thus be found in some parts of the Prime and other planes, especially when such aberrations have lasted for long periods of time.