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1879™

GAME MASTER'S COMPANION

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1879

GAME MASTER'S COMPANION

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DEDICATIONS

"This book is dedicated to all those who play in and contribute to the *1879* product line: past, present, and future. It is only through your support that this game world exists, and only through your involvement that it can continue to grow."

This game takes place in an alternate history form our own world. As such, numerous actual historical personalities, events, religions, and other institutions are referenced. No endorsement, approval, disrespect, disparagement, or other opinion or view on actual, real-world persons, faiths, nations, or other entities is intended, implied, or imputed. This is a work of fiction based on our world.

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1879 GAMEMASTER'S COMPANION

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Introduction

"The greatest happiness is to transform one's feelings into action."
– Madame de Stael

1879 takes place in an alternate history, where Prince Albert survived and became a champion of science in the British Empire, where Queen Victoria took up the cause of womens' rights after Dr. Elizabeth Garrett Anderson saved both the Prince Consort and young Albert, the royals' son. The Raj still holds power in India, but the Confederacy survived the War of Secession and North America has balkanized. The Prussians have made significant advances in electrical technology, catching up to and threatening to surpass British microsteam. Elsewhere, the course of history is familiar, and yet different, creating opportunities for both the heroic and the dastardly.

In this world, a Weird Science experiment in Greenwich Park opened a portal, the Rabbit Hole, to another world, and let loose a flood of mana, magical energy, into Earth. The surge precipitated the return of Earth's own magic, and now the victims of Looking Glass Fever, the Boojums, divide into the four subtypes of elf, dwarf, snark, and troll, having emerged from human stock as their innate magical nature expressed itself. With the rail lines of the Iron Tunnel extended through the Rabbit Hole, the British Empire expanded into the new world, the Grosvenor World or simply the Gruv, to run headlong

into two races.

One, the Samsut, appear to be descended from the Akkadians and Babylonians and Hittites, suggesting that three thousand years or so ago there was another portal. Having found a trove of technology from a highly advanced and long vanished civilization, the Samsut can treat mana, or life energy, as a power source. Their military carries mana-powered railgun rifles, and deploys battery-powered undead as shock troops. They view the British as despoilers of the land and wasters of precious energy. The British view the Samsut as despoilers of the dead. Of course they went to war.

The Saurids call themselves native to the Gruv, and are descended from something resembling a velociraptor the way humans are (according to Charles Darwin) descended from something like a monkey. All of them amphibious, but some spending more time in the water than others, they divide into three primary cultures, Plains, Mountains, and Forest, with different views on gender roles, religion, and appropriate use of technology. All of them know of machinery and fossil fuels, but choose to live without them, substituting biological sciences and handcrafted items for steam and factory production. A fourth, the kistalmi, high in the mountains, may have more advanced uses of low-impact technology, but hold themselves remote from the rest of the world, not welcoming visitors.

How to Use This Book

This book expands on the materials presented in the 1879 Gamemaster's Guide. We start off with Vehicles, providing more background, context, and colour, along with statistics for a few

new vehicles, The Gamemaster should familiarize themselves with the rules for vehicular combat and run a few practice battles if at all possible, so that there's no delay looking up the mechanics at a dramatic moment when the heroes are about to board the enemy vessel.

The Secret Societies chapter profiles more organizations useful more to the Gamemaster than the player. The Organizations presented will provide additional flavor for the world as well as new challenges. The Prodigals have called up something they cannot put down, and that has taken over their organization, providing an otherworldly threat.

The Dragons chapter gives the game mechanics for these extremely powerful entities, and describes the few dragons that have been seen thus far since the opening of the Rabbit Hole. Again,

the Gamemaster should give careful thought to inclusion, and note that Dragons are best dealt with from a very long distance away.

Two chapters, New Spirits and New Creatures, provide descriptions and game statistics to expand on the Spirits and Bestiary chapters of the 1879 Gamemaster's Guide. In addition, the New Creatures chapter details how to create new creatures, and introduces the first folkloric creatures of Earth, those of arcane nature that have appeared since the opening of the Rabbit Hole.

Finally, the Timeline chapter details the course of history in the game world. Scholars of real-world history will be able to use this to spot the turning points where the game world differs from ours, such as the establishment of the hajj as as ascension requirement of the Ottoman Sultanate. The Gamemaster can use this to build adventures resulting from historical events, and expand the game world by following the established course or finding a new turning point for their campaign.

The 1879 Gamemaster's Companion concludes with an Index for ease of reference.

1879 GAMEMASTER'S COMPANION

Vehicles

"Suppose now," queried a very Conservative Lord of George Stephenson, at a Parliamentary Committee meeting on railroad safety, "one of these engines of yours to be going along a railroad at your forecast speed of thirty miles an hour, and that a cow were to stray upon the line and get into the way of the engine; would not that, think you, be a very awkward circumstance?"

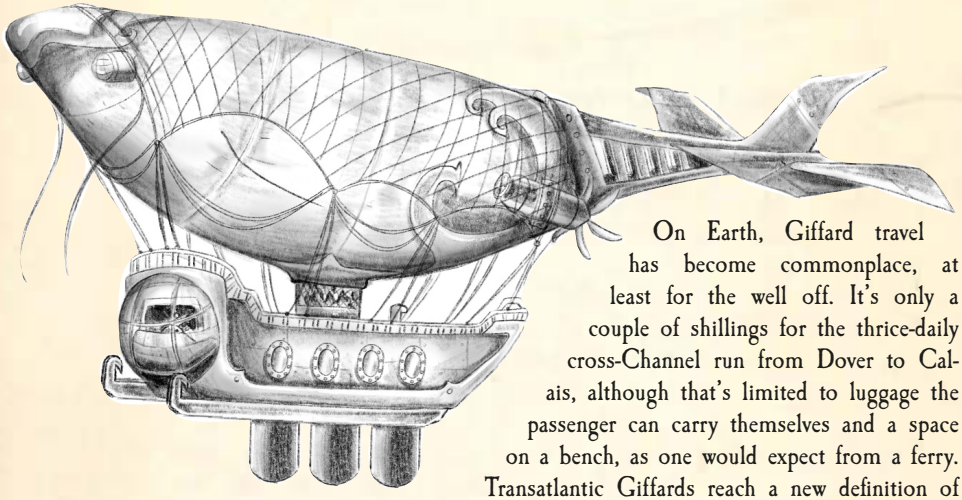
"Aye," Stephenson replied drily, "verra awkward indeed f'r the coo."

The 1879 Game Master's Guide provides game stats for a number of ground vehicles, ships, and airships, in the Steam Powered chapter (p.255). The goal here is to provide roleplaying material to layer atop those game mechanics, for enhancing descriptive passages and deepening player experience. Some new game stats are provided along the way, where new types of equipment are introduced.

Air Travel

There's a few ways to get about by air, some more practical than others. We'll focus here on those generally available.

Giffard Travel



On Earth, Giffard travel has become commonplace, at least for the well off. It's only a couple of shillings for the thrice-daily cross-Channel run from Dover to Calais, although that's limited to luggage the passenger can carry themselves and a space on a bench, as one would expect from a ferry. Transatlantic Giffards reach a new definition of expensive, not just due to the limited number of passengers they can carry, but fuel, food, water, crew, luggage, and so on. A first class stateroom on a Cunard ocean liner from Liverpool to New York runs thirty guineas, wines included, and lasts a week on average, while the same trip aboard a Giffard costs sixty guineas on the average, but requires only three days. Even the fastest steamer can only cut the trip down to four and a half days, and that's at the cost of trading all luxury and comfort for speed. For those whose time is worth more than seven guineas a day, the Giffard offers the best option.

> *Given the cost, anyone on board a transoceanic Giffard who's not a royal or a mercantile baron is assumed to be in government service of some sort. Oh, yes, you're carrying financial papers for the Rothschilds, we understand. (Whispered behind a hand, of course he's a spy.)*
> **– *Whitehall Charlie***

The actual cost of Giffard travel is determined partly by distance and partly by weight. Fare quotes are for an average human man, woman, or child of twelve, with baggage costs quoted in twenty pound increments. Most Giffard lines will have a weight limit for personal luggage. For example, White Star Lines restricts first class passengers to fifty pounds total boarding weight, including suitcases, trunks, handbags, briefcases, and all other carry-on items, and twenty pounds for steerage passengers. Boojums may have to make special arrangements, especially trolls, who may not even fit into the ship, much less the cabin. At the aerodrome, the incipient passenger steps onto a scale, and their baggage is likewise weighed, to determine the actual price of the ticket. First class

Giffard passengers and their luggage are weighed in private. The cost is then assessed. Nobody likes discussing the fare they paid, as it reveals sensitive personal information, except for the odd duck who brags about how they've travelled light to save money. The savvy traveller will skip breakfast the day of boarding, and visit the necessary before showing up at the ticket counter. Shipping heavier items, that one can survive without for a few days, by express train or packet steamer will save considerably on luggage charges. While a steamer trunk that's over the limit may be able to be boarded as air freight, the costs for such are frightful, and there may or may not be room for it in the ship's hold.

The Experience

The cabins of a passenger Giffard, regardless of class (and there's only first and steerage on most) always smell of old canvas and paper, because when there is no passenger for the cabin, they load it with bags of mail. There's always mail to be delivered, and hauling a few extra bags means recouping more of the cost of the flight.

First class cabins provide a table and chairs that fold out of the way in the evening, and a bed large enough for two that's generally a sort of Murphy arrangement, dropping down out of the ceiling or folding up flat against the wall when not in use. The facilities take up a corner by the door, generally being an enclosed cubicle the size of a coat closet just big enough for toilet, sink, and a sprayer for washing while standing. Even in first class, water for personal use is sharply limited, and one shouldn't expect more than a quick wetting, a scrub, and an equally quick rinse. The other corner by the door provides storage for luggage, hanging space for garments, and so forth, in an equally cramped space.

Steerage cabins provide a bunk large enough for one person, with a compartment at the foot for stowing one's suitcase, and a reading lamp at the other. Some cabins will have three bunks, one above the other, with barely enough clearance to roll over, while others will have only two bunks to allow for larger passengers at a higher cost. The facilities will be at the end of the corridor, shared with at least one other steerage cabin, possibly with a total of four or six.

Snark passengers will find both first class and steerage accommodations cramped and uncomfortable. Trolls attempting to travel by Giffard should make arrangements with the company beforehand. Showing up at the aerodrome and expecting to be able to find accommodation the day of the trip does not generally end well for anyone involved. The troll passenger will generally find themselves with a hammock slung in the cargo hold, the fare being double what a human would pay for a steerage bunk due to their weight. Some lines simply won't accept troll passengers due to sanitary issues, their ships having no facilities large enough for the troll passenger to fit into.

As far as crew goes, one will see a larger number of women and Boojums (and Boojum women) than might have been expected, given the divisions of the general population. Giffards are an integral part of both peacetime civilian existence and of modern warfare. With the opening of the Grosvenor World, and the subsequent demands of both exploration and the conflict with the Samsut, many airmen, like railway workers during the Crimean War, have left their civilian jobs for military service. Once again, women have gone into the labour force to replace the men, resulting in a high percentage of female pilots, engineers, and other crew in civilian cargo flights and passenger service. Since their appearance, Boojums have also found homes as mechanics, airfield workers, and so on, in a world where they were still considered potentially contagious and had difficulty finding employment in industries not so desperate for resources. Now that we know that Boojums are new species arisen from human root stock, the stigma of Looking Glass Fever as a disease is fading,

although more virulent beliefs are taking hold in the population. Nevertheless, the air travel (and railway) companies have grown accustomed to Boojums in specific positions in their workforce. Thus, the stereotype of the snark or troll yard worker, the elven pilot, and the dwarf train driver have arisen.

All of this covers only civilian vessels. Exploration ships are a rule unto themselves, often being custom fitted for the team expected to travel aboard. Military vessels tend to a more spartan accommodation, with only the captain having a private cabin, the officers being in bunks, and the crew slinging hammocks in whatever space they can find. The experience may vary according to the nation that built the ship (Prussians priding themselves on surviving in the most sparse of quarters, and French officers demanding more space both for themselves and for storage of personal kit, such as those terrifically fancy dress uniforms they're so fond of), its purpose, and the funding available at the time of construction or refit.

In the Gruv, Giffards are generally reserved for military and scientific use. They're highly vulnerable to Saurid Sky Riders, especially if the rider can get a fire arrow lit, or go over the top of the Giffard with a burning pitch pot or a vial of acid. Giffard deck guns swivel up to fend off overflights, but have their traverse stopped to keep them from firing into their own gasbag just as their horizontal traverse won't allow them to sweep their own deck.

> *This also hasn't covered illicit use of Giffards. Scotland Yard has a file on a fabulously successful burglary gang with their own Giffard – not air pirates, but looters of wealthy homes who descend from above. The police know these people exist because of evidence left behind – forced locks on roof access doors, footprints in tar down the stairs, and the like – but have no clue who they might be, where they come from, where they go, or how to put a stop to their crimes. The coppers haven't got enough airships of their own to patrol all of Britain, and these people hit London one night, Manchester the next, and Edinburgh the third. The newspapers are calling them the Ghost Gang or the Flying Burglars.*
> ***– Djehuty Jones***

Safety

Travel within a nation tends to be regulated, although better in some than in others. Poorly written regulations and human corruption produce unsafe conditions in the British Empire and elsewhere. International travel relies upon agreements between nations being upheld in the waters and skies between countries, areas which are much more vulnerable to the vagaries of legal interpretation (sometimes across multiple languages) and the venality of human nature. As a result, safety equipment tends to be woefully under-supplied. Steamships do not carry half enough lifeboat capacity. Airships may or may not have parachutes available, and if they do, there's not enough and they're not reliable. It's only a matter of time before a ship goes down with a loss of life both considerable enough, and sufficiently affecting the upper social strata, to force the international conventions to be revised and enforced. The well-seasoned traveller maintains their vigilance, and sees to their own safety where they can. Often, this is less through packing specialised equipment as it is through study of the measures already in place.

The railings around the deck of an airship will prevent a casual stumble from pitching one into empty space, but turbulence or accident may throw people against the railing hard enough to send them right over. Safety lines are rigged to prevent this, often made of bright orange rope to differentiate them from stays and bag-lines. Safety belts look like mountaineering harness, with

carabiners to connect to safety lines. There's multiple clips, allowing connection to a new line before unclipping from the old one. The more cautious airship sailors will keep two clips attached, each to a different line if possible, and move a third clip to the next attachment point.

Airships present a special consideration for crew and passenger safety, previously only of concern to mountaineers, miners, and bridge-builders. Caisson disease, also known as altitude sickness or Roebling's disease (after Washington Roebling, one of the most famous victims) results from going too rapidly from an area of high atmospheric pressure to an area of low pressure. (See the entry for Caisson Disease in the Death and Disease chapter) Lack of oxygen can exacerbate this condition, hence the tanks of gas variously known by its proper chemical name of oxygen, Lavoisier's Gas, or phlogisticated air for those determined to carry Priestley's torch, carried by mountain expeditions and on board Giffards that may seek extreme altitudes. Recent work by Dr. Andrew Smith and Ernest William Moir in the Union and the Siebe Gorman Company in Britain have led to decompression and recompression chambers, known more commonly as Siebe chambers, to treat caisson disease, and Henry Tables, dive/ascent timetables based on William Henry's work at the beginning of the century, to prevent it. Caissons and mines now have airlocks to maintain pressure and provide the proper adjustment time for those passing through it. Airships adjust their ascent and descent times to prevent caisson disease among the crew and passengers, and may have pressurised cabins if they intend to ascend to considerable heights.

Military Air Power

As of 1880, no nation has an air-specific branch of its military. The British Army and Navy both employ airships, predominantly as scouts and for courier duty, as do the Prussians, the French, the Russians, and so on. The Confederacy maintains a technological lead in airship construction, having produced the first military Giffards. Tactical deployment of air power remains a new concept, only used successfully in breaking the Union blockade during the War of Secession. Since then, long arms and artillery have increased in both range and accuracy. Naval vessels and Army kettles built after 1870 have high traverse weaponry, which can be loaded with incendiary rounds. This makes bringing a Giffard to a battlefield or flying it over an enemy fleet a chancy proposition at best, and survivable only if distance is kept both laterally and vertically from the enemy.

> *The use of Air Cavalry in the Grosvenor world represents an entirely new approach on the part of the British military, although it is old hat to the Saurids, who are of two minds about teaching the concept to the British. Some Saurids believe that they are sowing the seeds of their own destruction by teaching the Red Men how to ride airborne mounts. Others believe that the British will never master the art, and it's damn funny to watch them try. I find myself more and more in alignment with the latter school.*
> ***– Maj. Everett Clifford, 2nd Cavalry, US Army***

Military Giffards are used for aerial photography, delivery of perishable items to the front such as medications, and transfer of messages and personnel when ground transport or telegraph simply do not suffice. Putting a Giffard up behind friendly lines and using cameras affixed to telescopes results in pictures of the enemy that can be developed on board and sent down to the command staff on the ground. Glass plates must be sent down by parachute, or in a bucket hanging

from a mooring-line that has a brake on the pulleys. Prints and metal plates can be packed in an armoured and aerodynamic canister and chucked over the railing. The plates can also be held for hand-over upon landing, although generally only pre- and post-battle reconnaissance allow the luxury of that much time between exposure and review.

> *A similar approach did well for the New-York Times in 1869, when they photographed the driving of the golden spike at the meeting of the Central Pacific and Union Pacific Railroads. Their hired Giffard cast off immediately after the ceremony. Two days later, it moored at the Chatham Street headquarters building and a waiting copy boy ran the plates down to the compositing room for the evening edition. The Times, by taking the direct air route and travelling non-stop, published their photos of the event a full day and a half before rival papers who relied on the express rail service.*
> ***– The Dean of Manhattan***

While temporary rails can be set up quickly, using prebuilt sections of track complete with sleepers hauled to the end of the line ready to be bolted on, enemy shelling can break the line, halting the supply train. Artillery and kettle officers know to watch for steam plumes. With the train restricted to the route of the track, calculating the lead and trajectory to drop an explosive shell on a moving locomotive can be done in seconds by any gunner worthy of the name. Electric locomotives, that don't mark their location with a plume, are under development, but haven't proven reliable enough yet for battlefield use. Getting perishable supplies to the front, especially high-value items such as antivenin, falls to the Giffard corps. Again, parachute drops from altitude close to the enemy, or low-level armoured container drops further behind friendly lines, can put the materiel where it's needed with less risk to the transport method.

While Giffards of a reasonable size for battlefield deployment simply don't have the weight capacity to haul a regiment, a small group of specialists and their equipment can be brought close to their deployment point with no regard whatsoever for road conditions, location of rails, and the like. All that's required is weather good enough to fly in and a crew with absolutely no regard for their own safety, and a platoon of sappers, each with a pack of high explosives, can be put down hard by the structure they're ordered to bring down. Likewise, replacement officers, medical staff, and intelligence operatives can be ferried by air with only the consideration of staying far enough from the enemy to avoid incendiary shot.

> *And then there's the black Giffards. They're not actually black, they're mottled grey, but shadow camouflage Giffards doesn't sound as dramatic, does it? These small craft are designed for floating quietly through the night above enemy territory, to pick up a packet of information, or a passenger or two. The crew take terrific risks, of course. If they survive being shot down, they'll be hanged as spies. Flying aboard one of these is an experience not to be missed, if you're not faint of heart.*
> ***– Lt. Arbuckle Smith-Smythe-Smith, Some Brigade or Other, Her Majesty's None of Your Bleeding Business***

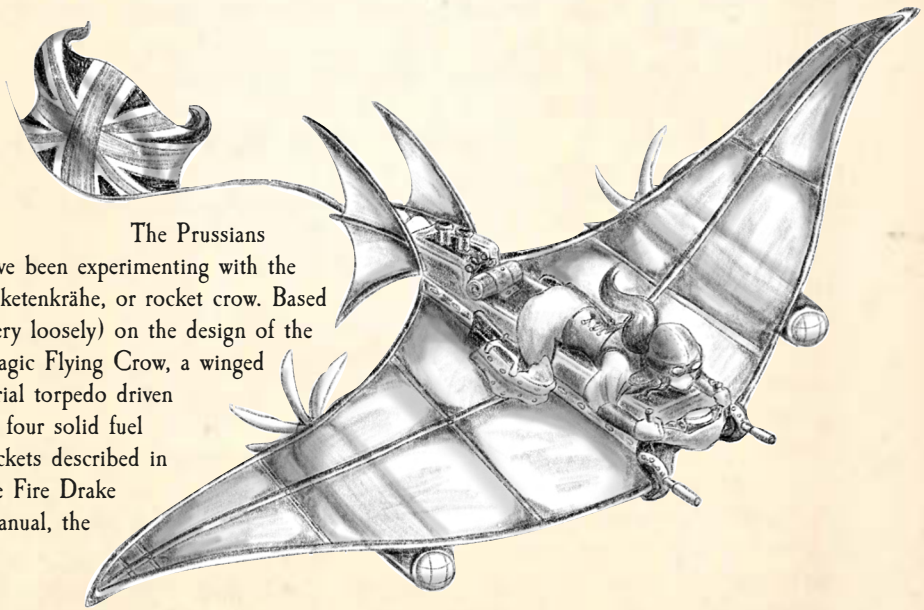
As far as weaponry goes, military Giffards carry the same basic armament as naval vessels – rifled breech-loading cannon in turrets amidships, pintle or pivot mounted smaller guns as bow and stern chasers, and the occasional Maxim or similar to repel boarders. The traverse does not

allow firing upwards at a steep enough angle to intersect the ship's own gasbag, creating a sizeable blind spot in the Giffard's fire pattern. Only two turrets, one port and one starboard, can be put aboard even the largest of military Giffards due to weight limits, with a maximum of two guns each. Ammunition likewise can only be scantily provisioned. The advantage of putting even one pair of guns well above an enemy, with a clear view of the range, should be obvious enough to justify the practice. Two or three rounds of canister dropping in from long range can be sufficient to disrupt even the tightest and most well disciplined of infantry formations. Torpedoes have been tried, in the form of air to air missiles, but so far have not been successful. No captain worth his salt would even consider igniting a rocket aboard a Giffard. Using a delayed ignition mechanism, that fires the rocket after the torpedo has dropped away from the hull sufficiently to not endanger the gasbag, generally results in wildly inaccurate shots, assuming the mechanism even works.

Drop Gliders

Larger airships, that have sufficient lifting capacity, may carry one or more drop gliders, one-person vehicles used for reconnaissance, messengers, strafing runs, and the like. These gliders are normally carried folded and stowed, so as not to produce drag on the ship. They're hung below the hull of the airship, and fall into flight with the release of the latching mechanism. Being gliders, they're at the mercy of wind and thermal updraughts, and may not be able to return to the airship when their mission is done, especially if they've landed. Drop glider pilots are often young women, because of the need for someone small and light. Early attempts to recruit steeplechase jockeys didn't work out, partly because a willingness to ride a horse at full gallop over fences doesn't preclude a fear of heights, and partly because that same willingness indicates a reckless nature, and gliders aren't terribly forgiving of such.

Mechanics: Setting one up takes ten minutes, and a Mechanic or Crew Vehicle Test against the Barrier Rating of the glider.



The Prussians have been experimenting with the Raketenkrähe, or rocket crow. Based (very loosely) on the design of the Magic Flying Crow, a winged aerial torpedo driven by four solid fuel rockets described in the Fire Drake Manual, the

Raketenkrähe consists of a larger and sturdier glider, with a shield above the pilot, and a single-use solid fuel rocket mounted in the latching mechanism above the wing. The glider performs similarly to the British version in deployment and flight. To return to the carrier airship, the pilot ignites the rocket, and uses its power to gain sufficient altitude. When the glider's hooks engage with the latching mechanism extended by the airship, the rocket's mountings release, and the rocket continues on (or falls away, if spent) while the glider is brought aboard the airship. At least in theory. During testing of the design, seven glider pilots died, from failure of the heat shield to protect them from the rocket's exhaust, the latching mechanism failing and the damaged glider falling, and in one case the rocket turning abruptly upwards on release and detonating the gasbag, in which case the entire crew of the airship perished along with the glider pilot. Despite all of this, the Prussian military has the Raketenkrähe working well enough that they have begun limited field trials.

> I've seen one crazy-mad Prussian (is that redundant?) let her rocket go while diving straight at a French airship, then snap-roll to starboard. Bloody glider actually held together against the stress of the manoeuvrer long enough the Prussian made it back across the battle line and parachuted down as her glider came apart in mid-air. The rocket flew straight into the French Giffard's gasbag with spectacular results. Turns out skygirls are as capable of a Husarenstück as their brothers on horseback. The Prussians are now working on a rack to mount a pair of rockets below the pilot, as armament. Far too soon, the Prussians may release drop gliders as fighting aircraft, so that their foes must contend not only with the Prussian Giffards but swarms of biting midges as well.
> – Captain Levente Foldenyi, Artillery, Royal Hungarian 2nd (Szeged)

Drop Glider

Cost: £20	Fuel Charge: None	Availability: Very Rare
Speed: 14	Maneuverability: 9	Armor: 0
Armament: None (pilot may carry personal arms)		
Ramming: 5 (taken by both target and glider)		
Passengers: 0	Cargo: None	Crew: 1
Damage:	Disabled: 22	Destroyed: 27
Critical Threshold: 8		

Note: The latching mechanism and boom required for the airship to act as a carrier must be installed at an airship yard, at a cost of £80 and requiring three days. The boom can be used to bring the glider back aboard as well as deploy it.

Flying the glider requires a Pilot Vehicle (8) Test as a base. The glider has an optimum glide ratio of 40:1, meaning that it loses 1 unit of altitude for every 40 units it travels forward. At maximum Speed, in one combat round the glider will travel forward about 136 yards while dropping about 3 yards. Gaining altitude from a thermal (a column of rising warm air) requires a Pilot Vehicle (13) Test, with five hundred feet gained for each success. Thermals may be sought only once every six combat rounds, to represent the distance between them. A round spent thermal-hopping takes the pilot's entire Action. Theoretically, a pilot could thermal-hop to gain sufficient altitude

for a docking attempt. Such an attempt requires a Pilot Vehicle (16) Test, as drop gliders aren't designed for the maneuver. A simple failure damages the latching mechanism. A Rule of One result damages the glider beyond its Disabled rating.

Raketenkrähe Glider

Cost: £28	Fuel Charge: £6 per rocket	Availability: Very Rare
Speed: 13 (18 with rocket firing)		Maneuverability: 8
Armor: 3	Armament: None (pilot may carry personal arms)	
Ramming: 6, 9 with rocket firing (taken by both target and glider)		
Passengers: 0	Cargo: None	Crew: 1
Damage:	Disabled: 26	Destroyed: 32
Critical Threshold: 9		

Note: The latching mechanism and boom required for the airship to act as a carrier must be installed at an airship yard, at a cost of £90 and requiring four days. The boom can be used to bring the glider back aboard as well as deploy it.

Flying the glider and seeking thermals use the same rules as the Drop Glider. Igniting a Raketenkrähe booster requires a Pilot Vehicle (9) Test and a Simple Action. Once the rocket fires, the Target Number for all Pilot Vehicle Tests increases by +4. The rocket allows the pilot to gain altitude as if chasing a thermal, but at a rate of one thousand feet per success. Altitude increases may be sought every combat round while the rocket is burning, and count as Simple Actions. The standard issue Raketenkrähe unit fires for seven combat rounds. An emergency jettison mechanism can be used to release the rocket before the glider latches onto its carrier. Using this requires no Test, and is a Simple Action. Attempting to dock with the rocket firing requires a Pilot Vehicle (17) Test. Further attempts can be made after a simple failure if the rocket is still burning. A Rule of One result does the glider's Critical Threshold in damage to both the glider and the airship. Attempting to dock after releasing the rocket requires a Pilot Vehicle (12) Test, but can only be made once, as a failure results in altitude loss.

Stirling Engines

Stirling engines work off heat differential between two cylinders, one expanding a heated gas (which cools it) and the other compressing the same gas (which heats it). An internal heat exchanger and thermal store, called a regenerator, makes the closed-loop system work. Robert and James Stirling built their first hot-air engines in 1816, found service for them in 1818, and then steam took off and the Stirling Engine was nearly forgotten for decades. Around 1860, a way to make a Stirling Engine work at lower temperatures was found, requiring less energy input and running at safer thermal levels. The Confederacy began experimenting with this design, and has just recently begun building Giffards using Stirling Engines instead of microsteam.

The standard design uses an inboard microsteam engine, with its terrifically expensive aluminium cooling fins, and belt or chain drives to the outriggers where the props are located. Bigger Giffards may put microsteam engines in the outrigger pods themselves, using those props for steering, and a larger microsteam or traditional boiler steam engine inboard to drive a pusher propeller at the stern, for motive power. This avoids the vulnerabilities of the chain drive system, and provides considerably more power for moving a larger ship, or attaining higher speeds with a smaller vessel. The outrigger pod design also increases safety, by putting the source of any possible

sparks well out away from the gasbag. If an engine catches fire, or threatens to explode, the pod can be jettisoned and trim adjusted, losing an engine but saving the ship.

In the new design, three Stirling Engines are used in the same basic configuration, one large inboard for push and two smaller outrigger engines for steering. The Stirling Engines use either twelve or sixteen beta-type cylinders for outboard or inboard respectively, each cylinder hot at the aft end and cool at the forward, with a displacer in the cylinder to shunt air between the ends instead of a regenerator to manage an external loop. A more recent design adds a pipe from the cool end of each cylinder to the hot end of another cylinder two places away, to keep the air circulating continuously through the engine and give it a bit more time to cool off as it passes through the pipes. The burners, powered by hydrogen, only take a moment to heat the cylinders, and then an electrical motor run by a battery starts the cylinder pistons into motion and sets the axle turning. Once in motion, the axle will continue turning under the Stirling's power until the burners are cut off and the cylinders cool. A clutch engages and disengages the prop from the axle, and reverses the prop for faster turns. Power take-offs from the axle drive generators for running and landing lights, inboard power, and charging batteries. The Stirling requires less heat shielding than microsteam, no cooling fins, and only passive airflow for ventilation. While the Giffard does away with the massive supplies of coke and water required for microsteam, it must carry extra acid and zinc for the Kipp, as the Kipp supplies not only gas for lift, but for motive power as well, the ship cooking its own hydrogen as it flies.

Mechanics: Using this system drops the Cost of the Giffard by 15%, and reduces the Fuel Charge by one third. The Speed Step goes up two points, and Maneuverability comes down two points. Availability rises to the next level, so a ship that is normally Very Rare becomes Bespoke. Converting a microsteam-powered Giffard to Stirling Engines costs 35% of the price of the ship, and requires both four weeks of drydock time and the services of an engineer with a Mechanic Skill of no less than Rank 7. Selling the aluminium cooling fins from the microsteam engine will reduce the conversion cost to 25%, assuming that the market for aluminium holds. A number of metallurgists are working on cheaper extraction methods for aluminium, and if any one of them succeeds, the price of the metal will drop sharply, eliminating this route of cost savings.

Ground Vehicles

This section expands on the road vehicles, trains, and kettles described in the 1879 Game Master's Guide, starting with discussion of the laws and social environment surrounding these vehicles, then moving on to the finer details of their construction and operation.

Legislation

In the 1860s, Conservatives in Parliament, terrified of the new steam technologies and the social and financial disruption they brought, tried to push through legislation to stifle their development. A number of accidents at intersections where careless vehicle operators caused injury or fatality to horses provided ready evidence for the need. The Locomotive Act of 1861 went through with some opposition, and put harsh restrictions on what the law called "road locomotives", a term that had to be defined in the Act itself as most people were already calling them "steam coaches".

The restrictions on minimum size and the tolls imposed turned out to be nearly meaningless, as they were imposed on vehicles with a gross weight exceeding two tons, or towing one or more wagons, and only affected the freight lorries as a result. The largest problem was the speed limit imposed, a maximum of five miles per hour in inhabited areas (such as London), a speed commonly surpassed by horse-drawn conveyances, and ten miles per hour on the open road. In response, steam-coach makers turned out smaller, lighter conveyances, creating the in-town delivery lorry with its standard weight of one and a half tons.

Furious, the Tories designed new legislation and proposed the Locomotive Act of 1865, which the newspapers dubbed the Red Flag Act. Among its more ridiculous provisions was the requirement for a minimum crew of three on all "road locomotives", with one man required to walk sixty yards in front of the vehicle carrying a red flag if the vehicle had two or more wagons attached. Nobody was running trains on the roadways, and certainly nobody was going to try to run a steam-coach towing a string of wagons through the crowded streets of Manchester or London, but reality did not enter into the equation. Worse, though, the 1865 Act would have brought the speed limit down to four miles per hour on the open road and two miles per hour in town, with a fine of ten pounds for exceeding either limit.

Prince Albert, determined that Britain would not be technologically outpaced by France and Prussia, took on the Squirearchy and the horse culture in person. In a series of meetings, technology demonstrations, and political manoeuvrers, he cajoled, shamed, and outright threatened the more recalcitrant retrogressives into withdrawing the Act from Parliament's consideration. Where necessary, the Prince set economic rivals against each other, pitting the manufacturers, shipping firms, and railways against the landed aristocracy, and made it very clear where Britain's fortune was to be made. Facing the wrath of the Prince, the potential of being shamed in public if the Empire were surpassed in economic prowess because of limitations on technology, and the clear threats of the business world to reduce the aristocrats to paupers if that was what it took to haul them out of the Eighteenth Century, the conservatives withdrew the Act. In 1866, a new Act was introduced that brought up the speed limit for vehicles travelling without attached wagons, required lights fore and aft on every powered vehicle on the road, and forbade the use of whistles in inhabited areas except under cause of emergency.

The more recent 1878 Highways and Locomotives Amendment Act concerned itself primarily with funding sources for constructing, maintaining, and repairing roads and bridges. The sanitary districts received authority over the roads within their borders, effectively turning over property, revenue, debts, and the physical labours to Public Works, consolidating roads with sewers and other public throughways and utilities. A scale of fees for assessing the costs of road wear based on traffic weight and volume spread the fees out across all travellers based on their usage of the highways. Bicycles and animal-drawn vehicles were added to the list of regulated traffic. The primary cause of road accidents, the operators of the vehicles, was still not addressed. Whilst inspections for powered vehicles were mandated, checking lights, warning systems such as bells and whistles, wheels and axles, and brakes, and bicycles and horse-drawn vehicles were required to have functional brakes and wheels shod in a way that did not cause excessive damage to the road, no competency examination or licensing for drivers was stipulated.

In the current day, permits are required to operate a cab or omnibus, but those apply to the vehicle, not to the driver. Proof of tolls paid must be presented upon demand when travelling through the cities, but the driver is not required to meet any standard for skill in operating their vehicle. A cultural shift and the retirement of coaching-days leftovers in Parliament may be required

before focus shifts from the vehicles to the people driving them. Steam-coaches do not steer themselves into collisions, after all.

Current Operating Conditions

While a considerable variety of power systems are available in this modern era, some are more prevalent than others. Electric cars enjoy more popularity than the new alcohol-fueled booze-wagons partly due to noise. The electric car makes a happy buzzing sound as it whirs past, while the internal combustion engine sounds like a Vickers gun, frightening horses and disturbing the peace. Steam cars and buses likewise are quieter, and a familiar sound from the trains that have long been with us, and the drivers know better than to blow their whistle near a horse. That's what the bell is for.

Road quality is critical for powered vehicles. Cobblestones, which provide good purchase for horses, just won't do for a steam-coach, creating difficulties in steering and a bone-jarring ride. Tar and macadam (layers of single-sized crushed stone compacted by pounding or rolling) over crushed gravel became the standard for road construction by 1870, which proved difficult for horses. This in turn drove more people to abandon horse-drawn vehicles in favour of steam and electrical power. The aforementioned 1878 Highways Act provided for a purchase tax on powered vehicles, and a road tax based on vehicle weight and miles driven per year. This in turn created a thriving market in odometer and paperwork falsification to avoid road taxes.

> *Always a bit of a scandal when a gentleman is found to be shorting his coach taxes. Cab and lorry drivers faking their mileage? Routine, and the cab company pays less in bribes to the inspectors than the taxes would cost.*
> ***– Djehuty Jones***

Axle weight in its own turn became an issue due to road maintenance and construction costs, which drove progress from classic boiler to microsteam. Big lorries sometimes have multiple engines, usually two, one per drive axle. It's horribly complicated to keep the engines in synch, but the profit margins remain viable. This gave rise to a new social class of mechanics, engineers, and drivers, labour professionals paid clerical rates to keep the Empire moving. The slang term "being paid rolling wages" comes from this.

Boiler-based steam vehicles normally require two people to operate, a driver to tend to the engine and a steersman to see to navigation, sometimes called an engineer and a driver. Later vehicles, starting with those using the new microsteam system, can be operated by one person, but take a lot of work to manage the engine and guidance all at once. Driving a steam vehicle goes well beyond considerations of gears and clutch, turning radius, and stopping distance. There's no single control for acceleration. Instead, there's a pressure regulator that determines how much steam goes to the drive axle(s), and a fuel supply adjustment lever to control how much steam the engine generates, which must be balanced against each other. On seeing an approaching hill, the driver must first increase the fuel supply to build up steam, then increase the pressure to the axle to get the vehicle up the hill. There's not one gear shift, but two, one for the forward gears and a separate lever to engage reverse gear, both a hand brake and a foot brake, a pressure gauge and a water gauge that have to be watched, and so on. Between letting the steam off, putting the gearbox in neutral, and working the brakes and steering, a driver bringing a freight lorry to a halt is incredibly busy. Forgetting to set the pressure relief valve before backing off the regulator results in the steam going

out the safety valve, which makes a terrific screeching whistle as a warning. Teakettling your lorry is the mark of a sloppy driver. Someone "what's got the kettle on" isn't paying proper attention, not doing things right or safe.

Trains

As I was going up from town, I met the grain trains rolling down
Every day a hundred trains
Every train a hundred cars
Every car a hundred tons
Every ton a hundred sacks
Every sack ten thousand grains
And that's what cities get from trains
– Leslie Fish

Military Trains

Every rail-capable nation uses trains to move its military and supply its forces. As previously noted, the fixed routes and smoke plumes of locomotives make them easy targets for enemy artillery. Military trains compensate with heavy armour, increased speed, and ready availability of repair and replacement. Loading on armour can protect a locomotive from direct assault or a nearby artillery shell detonation, but will slow the train by adding weight. Increasing the locomotive's horsepower can increase speed, but at the risk of a devastating explosion if a high-pressure boiler gets punctured. Reducing armour and relying on speed generally does not work out well, as artillery officers simply recalculate their leading distance and drop a shell where the train will be. Being able to lay new track and bring up a new locomotive quickly can compensate for the loss of either to enemy fire, but gets very expensive in short order. Moving supplies at night to make the smoke harder to spot has been tried, but of course the enemy just puts dwarves and trolls with the artillery crew so that they can spot the train by the heat plume. Batteries for electric locomotives haven't the capacity to move broad-gauge traffic over long distances. Even with a tender full of batteries, Welsh gauge over less than eight miles is the best that's been achieved, although that's enough to drop ammunition resupply for a regiment at the rear of the fighting line. As with any ongoing arms race, no great advantage has been found for either side. In the meantime, rail remains the best option for moving large amounts of materiel and troops over long distances.

Most military locomotives are adapted from civilian models by the addition of armour and weapon mounts. This keeps replacement parts more readily available, as custom parts do not have to be made, and spare parts can be cannibalized from stock in the field. A few special-function locomotives have been put into use, mostly for political reasons. Special-function wagons are more widely deployed, as they simply need a locomotive capable of hauling them.

Coal Trains

The coal trains that feed the war effort are nicknamed after the terrible reputation of the Commissariat from the Crimean War, due to critical military need for coal that was never properly met. Officially, the heavy locomotive that brings coal from the mines to the distribution yards is the Fleete class, named after the commissary general in charge of coal contracts at the start of the Balkan conflict, and the light loco that hauls graded coal to the fuelling depots is the Galliput class,

for the officer who was in charge of bunkering. Unofficially, they're known as the Slowcoach and the Filder, the one an old British slang term for anyone moving with an inappropriate lack of speed, especially those who are wide and heavy and puff mightily with exertion, and the other because it's a lightweight of old design that's wasn't up to the job when it was new, as a jab at William Filder, head of the Commissariat during the Crimean War.

Fleete Class
Cost: £1850 Fuel Charge: 8d Availability: Rare
Speed: 10 Maneuverability: 7 Armor: 8
Armament: Pintle mounts left/right on cab Ramming: 12
Passengers: None Cargo: 300 tons
Crew: 2 (Driver, stoker); train may also have conductor, brakemen, and other crew
Damage:
Disabled: 96
Destroyed: 112
Critical Threshold: 26

A high-pressure boiler combined with a 2-6-6-2 bogie configuration puts considerable horsepower on the drive wheels. While the locomotive is thoroughly capable of pulling a substantial load, its towing capacity outstrips its weight, resulting in lowered efficiency. Generally, two or more Fleete class locomotives will be used for any coal train, in order to have enough weight on the axles to prevent slippage.

Galliput Class
Cost: £1100 Fuel Charge: 4d Availability: Rare
Speed: 12 Maneuverability: 7 Armor: 4
Armament: Pintle mounts left/right on cab Ramming: 8
Passengers: None Cargo: 150 tons
Crew: 2 (Driver, stoker); train may also have conductor, brakemen, and other crew
Damage:
Disabled: 70
Destroyed: 83
Critical Threshold: 20

Designed to be counterbalanced by a tender, the Galliput class uses a 2-4-0 bogie design that has proven problematic from the outset. While it might have been useful in test runs with just a few cars, or under duty as a shunting engine, the Galliput simply doesn't have enough tractive efficiency to pull a bunkering train by itself. Running two Galliputs stern to stern with a large shared tender between them solves some of the problem, but creates opportunity for manual error in operation. While some locomotive designs are sworn by as staunch and reliable, the Galliput is more likely to be sworn at.

Rail Artillery

While the British, French, and Union have built flatbed wagons with integrated cranes for carrying artillery pieces, and quickly loading or offloading them, the Prussians have gone one better.

They built a flatbed car with an integrated howitzer, based on Commandant Mougin's firing of French guns from rail cars in 1870. The 18 inch gun fires a half ton explosive shell, with recoil that rolls the wagon back on the rails ten yards or so. Traversing such a massive piece on a car mount or top carriage mount and maintaining structural integrity when firing have thus far not proven mutually possible, so they use curves in the rail lines for positioning. While it takes fifteen minutes to set up a shot, including cooperative aiming between the artillery officer and the locomotive driver, a single round can destroy half an encamped battalion and leave the survivors maimed and unfit for action. Aerial bombardment from an altitude out of range of man-portable weaponry has proven effective against such a piece, as vertical traverse is also not an option. The Prussians have learned from this and now send air cover with their railway guns. The only good news for foes of the Prussians is the prohibitive cost of such a gun, that has kept the number in existence in single digits. Not just the gun must be paid for; each one must have a dedicated locomotive with a specially trained driver and relief driver, plus cars in the train for ammunition, spare parts, guard troops, mess and supply facilities, and so on, becoming a six to eight car rolling military camp all to support a single artillery piece. The guns thus exist more as strategic weapons, used for propaganda and demoralising the enemy, than anything practical on the tactical level.

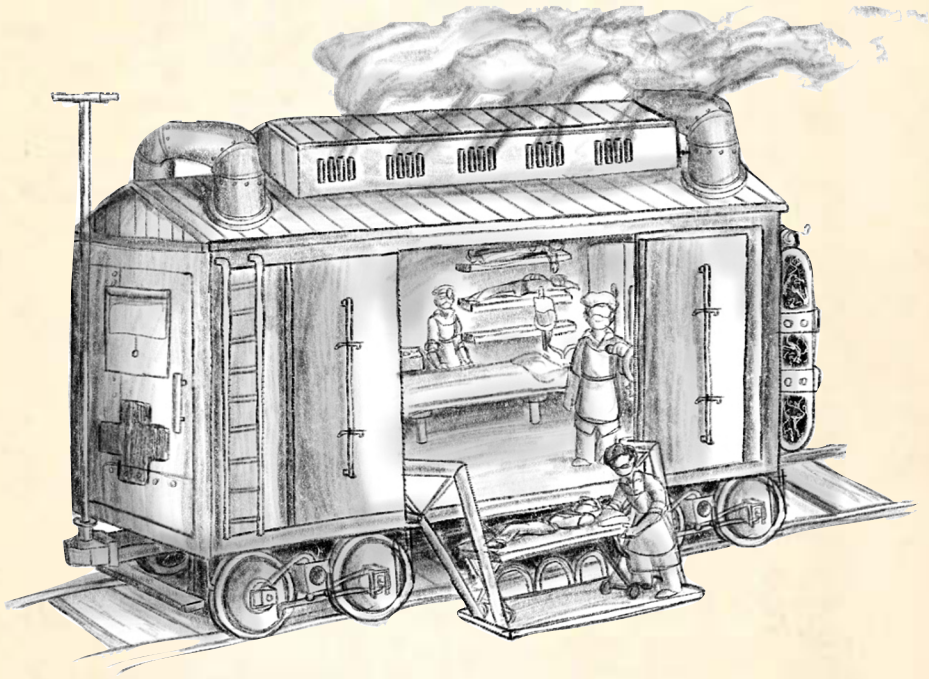
Riesige Eisenbahnwaffe (Giant Railway Gun)
Cost: £1800 Availability: Bespoke
Speed: 10 (maximum, the axles overheat and warp at 11)
Maneuverability: 9 Physical Defense: 2 plus current Speed Step
Mystic Defense: 10 Physical Armor: 7 Mystic Armor: 0
Damage: 10x50 (3D20+D12+2D8) Success Bonus: +8
Area of Effect: 100 yards radius from point of impact
Rate of Fire: 1 per 15 minutes
Range: 1000 (minimum, for cartridge to arm after firing) / 20,000
Crew: 8 (Gunnery officer, gun crew, mechanical crew); support train must have driver, stoker, mechanic, protective troops, etc.
Barrier Rating:
Disabled: 86
Destroyed: 102
Critical Threshold: 24

Ambulance Trains

Railways have been used to remove the injured from battlefields since the American War of Secession, when wounded soldiers were piled on flatbed cars like cordwood and hauled away to be sorted at the far end into the dead, the dying, and the salvageable. Medical care and hospital trains have come a very long way since then, partly due to the influence of Florence Nightingale on Isambard Kingdom Brunel. In his last years, Brunel, while bedridden, continued designing specialised cars based on the needs communicated to him by medical staff. The modern hospital train generates its own electric current, providing well-lit and ventilated facilities throughout. All cars are steam heated. At least one car is fitted up as a mobile operating theatre. Onboard bathing facilities double for hydrotherapy, so that burns can be treated while in transit. The standard British hospital train carries a medical staff of 39, including doctors, nurses, and orderlies, and has beds

for 400 soldiers.

> The infection rate is still high, even with penicillin and sulfa, so the smell on board a hospital train is fearsome, counteracted with tobacco, incense, carbolic acid, and whatever else can be obtained. The supply of anti-infection drugs just can't keep up. Maintaining Dr. Lister's antisepsis regimens aboard a train, sometimes in motion, often flooded with wounded soldiers brought straight from the battlefield and still encrusted with mud and soot and filth, simply cannot be done.



> – Hiram Goldberg, M.D., HM Army Medical Service

Given the conditions aboard such trains, and how quickly they can break down, the Army Medical Service has begun actively recruiting among the Nightingale Sisterhood and any other practitioners of healing magic they can find. Thus far, this has not been successful. The low pay and poor working conditions of the Army Medical Service, the lack of military rank which engenders a lack of respect for medical staff, and the lengthy field postings abroad have already resulted in a two year drought of applicants. As magic becomes more acceptable within medical practice, healing magicians have found themselves in very much of a seller's market, in which the Army Medical Service simply cannot compete. Substantial reform on the level of Cardwell has been rumoured, with a reorganization into a proper Royal Army Medical Corps with commissioning of doctors and nurses as officers, but thus far the paperwork for such has not made it out of study committees. Until such happens, the presence of someone capable of cleansing a newly arrived patient with a gesture, establishing hygiene before taking the wounded on board, remains a pipe dream.

Hospital Train: Unit Car

The Unit Car combines the functions of galley and surgical suite, leveraging the efficiency of putting the gas, electricity, and water supplies requisite to both in a single wagon. At one end, the vestibule holds dry goods lockers, and lets into the kitchen area. The cooks' quarters lie just beyond, separated by a curtain and resembling the spartan accommodations of submarine crew. At the other end, the vestibule holds bandage and towel lockers, and lets into a combination dispensary and surgeon's office and quarters. Beyond that area, a dressing room provides facilities for cleaning and bandaging of wounds, and such minor surgery as might be accomplished in tight quarters with minimal staff. A side passage, wrapping around the back of the dressing room, allows the porters to convey victuals from the kitchen through the dispensary and to the rest of the train in that direction.

> Doesn't matter where in the train you put the Unit Car, it's damned inconvenient. At either end and you have to cart food and wounded soldiers all the way through the train, and if you've put the dispensary entrance at the tail end, you're hauling wounded through the kitchen to get them into the surgical suite. Put it in the middle and all the traffic in the train goes right through the dispensary and the kitchen. Better minds than mine have tried to figure this muddle out and yet to come up with anything like a workable solution.
> – Llarina Del Moral, M.D., HM Army Medical Service

Cost: £2000
Speed: NA
Armament: NA
Cargo: NA
Damage:
Disabled: 80
Destroyed: 95
Critical Threshold: 20

Fuel Charge: 0
Maneuverability: NA
Ramming: NA

Availability: Very Rare
Armor: 8
Passengers: 5 (4 cooks, 1 surgeon)

Hospital Train: Ward Car

The Ward Car carries 32 patients in double berths down each side, one below and one above, leaving the central aisle clear for medical staff and patient transport. In all cars after the first generation, the actual floor slopes downward toward the centre of the car, with a drain at the lowest point. A metal grid laid atop support rails provides a level surface above and allows fluids and unwanted substances to drop through. When the car is vacant, a pressure hose can be used for rapid cleaning. At one end, the sanitary facilities take up one side with an enclosed toilet cubicle and an open area with two hand sinks, the other given over to storage lockers for linens, medication, and associated supplies. At the other end of the car, a dressing room provides an enclosed space and limited supplies for changing bandages and surgical dressings, clearing drains, and similar patient care. In a crisis, the dressing room can be pressed into service as a makeshift surgery.

And far too often is.
– Llarina Del Moral, M.D., HM Army Medical Service

Cost: £1500 Fuel Charge: 0 Availability: Very Rare
Speed: NA Maneuverability: NA Armor: 8
Armament: NA Ramming: NA
Passengers: 3 (2 nurses, 1 physician) Cargo: NA
Damage:
Disabled: 80
Destroyed: 95
Critical Threshold: 20

Civilian Trains

Substantial changes have been made in locomotive and railway design since the days of Brunel's gauge conversion. Different requirements and differences in environment have produced variations between Earth and Gruv equipment. Trains in the British Empire and those in other nations vary not only in distance from wheel to wheel along the axle, but in carriage design, standards of luxury for first class passengers, and adaptation to purpose. As a long ago engineer said, the nice thing about standards is that there's so many of them to choose from.

Wagons tend to telescope under impact, to collapse from the front and back toward the centre. This is due to the nature of train collisions, where the entirety of the force is normally transmitted from the point of collision directly along the line of cars, and any momentum those cars may have pushes the other direction at the same time. Besides the terrible result of the passengers being crushed, the gas canisters under the floor tend to rupture, resulting in explosions and fire that kill anyone who survived the initial impact. Reducing the casualty rate in a train collision has been a primary concern of engineers around the world for generations. British passenger cars, both on Earth and in the Gruv, tend to use wooden frame construction, partly for cost savings but also for weight considerations. The less the car weighs, the less it costs to tow it, and the more profit can be made from the usable load. Protests over railways putting profit margins over safety have thus far not moved Parliament to regulate the materials that may be used in passenger cars. The Prussians, on the other hand, driven by numbers as they are, looked at the labour-hours lost from an average adult casualty, put that against the ongoing fuel, construction, and maintenance costs, and went to steel frame carriages lit by electricity ten years ago.

Mechanics:
Prussian passenger cars cost 12% more than British, but gain 15% to their Armor (rounded up) and move up three rows on the Attributes Table for all Damage statistics. Taking Damage past its Critical Threshold breaches the car's lead/acid batteries, creating a hazard underneath the car, but only releasing acid into the passenger compartment if the Damage exceeds three times the Critical Threshold.
If a British-made passenger car takes Critical damage, its gas canisters are breached, creating an explosion hazard. Treat as an Explosive Gas trap (1879 Game Master's Guide, p.216). If the car takes double its Critical Threshold, the trap is automatically triggered. The car erupts into a Step 10 Fire (1879 Game Master's Guide, p.225)

that will burn for 20 minutes or until extinguished.
Train collisions cause a Damage Step equal to the current Speed Step of the train, doubled, for a collision with a stationary object, or the combined Speed Steps of the train and what it collides with for impact with a moving object, such as another train. This Damage Step is applied to all cars from the point of impact onward, dropping 2 Steps per car. All persons and objects within a car take the same Damage Step as the car itself, reduced by the car's Armor. Thus, if a car with Armor 8 takes Damage of Step 22, the passengers within take Damage of Step 14.

Mounting a locomotive's expansion cylinders inside the wheels instead of outside reduces hammer blow (the vertical impact on the rail when the connecting rods and pistons reach the end of their cycle), which in turn requires less counterweight on the drive wheels. This reduces maintenance costs on the rails, to replace track pounded out of shape by locomotives with poor drive wheel balancing passing over it, and reduces the weight on the drive wheels themselves, producing greater fuel efficiency. However, maintenance costs for the locomotive are significantly higher for inside cylinders as compared to outside cylinders, because inside cylinders can only be accessed from underneath the locomotive. This requires a pit facility, with all its associated costs of excavation, drainage, lighting, and so on. Working in such an environment requires more effort on the part of the maintenance crew, which increases the labour-hour cost of maintaining the locomotives. Given track maintenance costs in the Gruv, which include military escorts, hazardous duty pay, and a higher incidence of accident, injury, and fatality among the navvies, on the balance it's turned out more economical to spend the money on the locomotives than on the tracks. Greenwich Station has had a pit facility added so that maintenance of Gruv locomotives can be done on either side of the Rabbit Hole. On Earth, however, the British Empire continues to use the less expensive outside cylinder design.

While several efforts are underway to develop a mechanical stoker, locomotives currently require a fireman to load coal, maintain steam, and generally tend the boiler and firebox. Big locomotives require two firemen, one at the firebox and the other at the tender, swapping off to prevent overheating. The human maximum for shovelling coal is about 5000 pounds per hour. Snarks can do better, but don't fit on the plate very well. Trolls don't fit at all, which annoys railroad management considerably. Putting a dwarf in as driver clears a bit of space, so a dwarf/snark combination has become popular enough to be lampooned in Punch.

Military Vehicles

A far cry from the first armoured tractor, today's modern armoured steam vehicles, known colloquially as "kettles" for tolerably obvious reasons, carry substantial firepower, protect their crew while allowing rapid egress in case of structural or mechanical failure, and provide considerable manoeuvrability and towing capacity. The related assault carriers allow rapid insertion of shock troops into hostile environments, with armour to keep the troops safe until deployment and machine guns to keep enemy forces at bay. The British Army has also fielded armoured cargo vehicles, for delivery of supplies into active battle zones, and command carriers, so that senior officers can direct the flow of battle from close quarters without being an easy target for the enemy. All of these as a rule feature independently driven treads, armour plating across the underside as well as around the sides and over the top, and some form of defensive weaponry to keep infantry from getting close enough to toss a Molotov or a grenade. Action reports from the first-generation kettles, such as

the Gordie and the Havelock, have resulted in design improvements, while commitment to mass production has brought down manufacturing costs. Let's look at one of the second-generation kettles as an example of evolving design philosophy.

"Ellis" Class Light Kettle

The Ellis represents a departure from the ever-increasing size and firepower of British kettles. In tonnage comparable to the Gordon, the Ellis design puts more of the kettle's mass into engine and loadout, resulting in a faster, more agile vehicle that hits harder and has broader applications. Built too heavy to be a true skirmishing vehicle, the Ellis nonetheless serves alongside infantry and light cavalry. Its ability to force a passage, like its heavier cousins, has already endeared it to many in the lower echelons. The dual machine guns, one on either side of the turret, give it excellent antipersonnel capability. The over-and-under dual breech loading 3-inch main guns can lay a persistent barrage on a fortified target, or load canister or incendiary shells against enemy troops. The Ellis has gained quick acceptance in its role as mobile shield and path-maker for troops on foot or horseback, finding service more usually embedded with the infantry or cavalry in pairs or threes instead of in squadrons with its armoured kin.

Cost: £1200	Fuel Charge: 7d	Availability: Very Rare
Speed: 15	Maneuverability: 5	Armor: 14

Armament: Turret with twin over/under 3-inch breech-loading rifled cannon, two Maxim .450 machine guns with 45 degree traverse each mounted 15 degrees off the main cannon to either side, Maxim .577 machine gun fixed mounts port and starboard with 90 degree traverse. Main gun ammunition capacity is 60 rounds, usually carried as 30 explosive shells, 20 canister and 10 incendiary. Each Maxim has a 1000 round dedicated storage locker with direct feed. Taking ammo from a storage locker and loading it for another gun is a complex task requiring eight combat rounds and a Gunnery (10) Test. Unlatching an empty storage locker, replacing it with a full one, and readying the weapon takes three combat rounds and does not require a Test. Standard loadout for the turret Maxims consists of one locker mounted to the gun and one more under the gunner's seat. The side gunners have room for two lockers under their seats.

Ramming: 17 Passengers: None Cargo: 2 tons (towing capacity)

Crew: 6 (Driver, commander/turret gunner, loader/turret machine gunner, mechanic/stoker, 2 machine gunners)

Damage:

Disabled: 110
Destroyed: 130
Critical Threshold: 30

"Seat", there's a laugh. Ever see the seat on a tractor? It's basically a metal pan shaped to fit your bum, mounted on a strut. Kettle crew get shoehorned in however they can make us fit. We count ourselves lucky to have somewhere to park our arses that's not the engine shroud or a gearbox covering or a stack of cannon shells. Even with the strut being spring steel, so it flexes a bit, and the heavy padding in the duty uniform they started adding so

we wouldn't stuff our blankets down our trousers, your kidneys are beaten into pudding by the end of a fight, and the less said about the bruising up your backside the better. Let's just say there's a reason why they call us bluearses in the barracks.
– Sgt. Edward Niles, 1st Armoured Cavalry

Heavy Armoured Infantry

Known informally in the military as HATs, Heavily Armoured Trolls, the Heavy Armoured Infantry performs a similar function to the Armoured Cavalry division. Consisting, as the nickname might suggest, of troll soldiers in massive plate armour, carrying heavy automatic weapons and backpacks full of ammunition, HAI units deploy at critical points along the front line, draw enemy fire away from their unarmoured comrades, and breach the enemy line to allow the regular infantry through.

The initial theory was that they'd require less maintenance, less in the way of spare parts and supplies, and would be less likely to bog down in the mud than the kettles. This has sadly not been the case. The loading per square inch on an armoured troll's boot can actually exceed that of an armoured vehicle's track. While the kettle weighs in at an order of magnitude greater than the troll, the surface area it rests on is considerably greater in ratio to its size. In the second battle that armoured trolls were deployed in, a breaching carrier had to be diverted to pull a troll unit out of a trench, with two of the trolls having sunk thigh deep before aid arrived. Justifying the die-hard complaints about automatic weaponry wasting ammunition, the troll units must have battlefield resupply between waves in order to keep fighting. Their armour requires considerable maintenance after each engagement, for cleaning and corrosion prevention. The rations requirements of trolls are already infamous within the logistics division, and have massively escalated the conflict between the supply chain officers and the Commissariat and Transport groups.

> For all the problems that the troll units have, your battalion having HATs on does give them a lower casualty rate and a greater chance of breaching the enemy line. They've also got a morale effect similar to the Prussian blitzschutzen, although now the Russians are starting to field their own trolls in plate. I can see a time in the immediate future when we've returned to the medieval ages, and the bloody great armoured knights form the centrepoint of the clash, while the peasant infantry mill around them having at each other in the shadow of the giants.
> – Capt. Deborah Goldstein, 4th of Foot

Troll Heavy Armour

Physical Armor: 11	Mystic Armor: 0	Initiative Penalty: 5
Cost: £380	Weight: 80	Availability: Bespoke

Troll heavy armour typically has a pintle mount for shoulder carry of a Maxim .450 or similar machine gun, although a body harness for support and recoil distribution has been fitted to a few suits for the chain-fed punt gun. Use of the punt gun requires two snarks or a mix of four other races in support roles, to carry ammunition, spare barrels, and the like, and to act as spotters.

Rivers and Oceans

Travel across the water has been augmented by steam power for a hundred years. From the first crude attempts with paddlewheels, to commercial success and the creation of the packet line, to ironclad warships and screw-driven ocean-going vessels with steel hulls, the advance has been rapid and inexorable. Sail has given way to steam.

Riverboats: the Sidewheeler and the Sternwheeler

Boats and ships designed to travel in freshwater may have screws, but the preference has been for the paddlewheel. (For reference, if you can put a boat on it and it does not sink, it's a ship.) Screws tend to foul more easily in the often luxuriant growth of water plants, or the debris of civilization. Paddlewheels require less draft, which is the measure of how far down into the water the vessel extends, which means they can operate in much shallower lakes and rivers. They also put considerably more motive surface in contact with the water, producing thrust by effectively automating the work of rowing.

Mechanics:

Generally, sidewheelers have a Maneuverability Rating a point or two lower than sternwheelers. The Cargo capacity of a sternwheeler will normally be higher, by anywhere from 5% to 15%. In open water, the sternwheeler takes a 1 point Maneuverability Rating penalty. Building and maintaining a sternwheeler costs 10% less than an equivalent sidewheeler, due to the less complicated drive system.

Nobody uses sidewheelers in the open ocean any more, not since the Great Eastern made her maiden voyage. On inland seas and lakes, that's another story entirely. The Union and Canada have regular packet line commerce going across Lakes Superior, Huron, Erie, and Ontario, sidewheeler steamships being practical on the vast freshwater reaches of the Great Lakes. (Lake Michigan lies entirely within the Union's borders.) Similarly, Russia maintains internal trade across the Aral Sea and external across the Black Sea with sidewheelers, often of elderly make or built by their captain along idiosyncratic lines. Within the Union and Confederacy, especially along the Mississippi River and its tributaries, sternwheelers still find considerable employ. While there are newer technologies, the sternwheeler remains economically efficient, and so hasn't been replaced.

Big Ships: Crossing the Oceans

Safety remains a serious concern. Surviving any sort of disaster at sea requires the proper equipment and someone skilled in its use, which in turn demands preparation of the sort that only the military really does. Aboard civilian vessels, such as freighters and passenger liners, safety equipment tends to be woefully under-supplied. Steamships do not normally carry sufficient lifeboat capacity, averaging enough seats for about half their passenger and crew manifest. Lifeboat drills simply aren't done aboard passenger liners, for fear of worrying the passengers about the possibility of needing to abandon the ship. Passenger line firms extol the reliability of their vessels, and omit all mention of lifesaving equipment in their advertisements for fear of associating their ships with the concept of sinking in the minds of the buying public. Airships may or may not have parachutes available. If they do, there's never enough, and only the crew are likely to have the training to use

them. Also, while a sinking freighter on the open ocean leaves debris that may be clung to while awaiting pickup by a lifeboat or rescue vessel, an airship that breaks up plummets from the sky and leaves very little chance for survival. The issues involved in escaping from a sinking vessel are best roleplayed with appropriate mechanics applied to the immediate issues being faced. The possible challenges are considerable.

Lifeboats may have problems launching, requiring a Crew Ship or Mechanic Test. This may involve issues with the divots, where the lifeboat won't swing out over the water, or the release mechanism, that lowers the boat from the deck into the water at a survivable angle and speed, or the ship being heeled over too far to allow the lifeboats on one side to be used at all. Once launched, a Pilot Ship Test could be used to ensure the lifeboat gets far enough away that it isn't sucked down by the sinking ship's vortices. Additional handling Tests may be required depending on the environment.

Aboard the ship, attempting to leave may be hampered or blocked by explosions, power failures, mechanical failures, or the hatch needed already being under water. Use of Mechanic or related Skills to overcome these challenges is handled in the rules for the Skills. For example, rerouting steam through a secondary system could be done with Mechanic or Field Engineering. Unsticking a hatch mechanism might require Clockwork, or Munitions if the character is in a hurry and not worried about shock waves and further damage to the vessel.

Steamships present a specific risk as they fail, that of boiler explosions, which can put the ship past Destroyed in a single blast, possibly killing everyone still on board in the process. Ships risk explosion if cold incoming water hits the boilers. If possible, the ship's engineer will vent the boilers, dumping pressure out the blast pipe, and quench the fires. However, any boiler is put at risk when damaged. Older boilers, especially those built before 1850, are more likely to fail because of their use of cast iron and one-off, manually riveted construction. It's recommended that Gamemasters use boiler explosions for dramatic effect, and not roll dice to determine if they occur, as the possibility of ending an adventure with the death of the entire party as the result a single dice roll exists

Military Vessels

The migration from sail-driven wooden hulls to steam-driven steel hulls wrought profound changes upon both the working environment and the crew. Gone are the topmen, the elaborate knot-tying skills, and the need for endless picking of oakum, although British sailors are still called tars. Gone too is the crack of canvas, the creak of the lines, the deck heeling over under full sail, and the need for work gangs to pull and haul. Both environment and crew deserve more in-depth discussion.

Environment

The first thing everyone complains of is the noise. Steel hulls act as echo chambers, and ship's engines are great clanking behemoths. Every footstep on the metal deck, every dropped spanner, every hiss of the relief valves, reverberates through the vessel. It's most intense in the engine space. Hearing loss has become inevitable. Senior engineers are half deaf by the time they accrue enough seniority to rise to the position.

The second is the heat, made worse by the cramped space. There's only so much room in the hull, after all, and one can only pile so much into a ship before it sinks under its own weight. Every last inch must be exploited, and preserved for more important items such as munitions

and fuel, with crew comfort being a dim flicker toward the end of the list. While the ocean is cold, there's only so much heat that can be siphoned away by the waters the vessel rides upon, and if the engines aren't generating massive amounts of heat, they're not driving the ship.

Beyond that, the smell takes some getting used to. A vigorous mix of machine oil, hot metal, old sweat, and burning coal permeates the ship, detectable even up in the rarefied strata of officers' country. The air circulation required to vent the fumes and heat from the mechanical spaces unfortunately means piping air in and out through the upper decks, and leaks in the plumbing are inevitable. If the galley serves cabbage for a meal, which happens rather often as it's a cheap and easy way to get produce into the crew, the reek hangs about like the last drunk at the pub after the bell. The Prussians have experimented with the new internal combustion engine, which adds petroleum volatiles to the mix. One hopes they'll give that up as a bad idea, as being downwind of a freshly off-boarded Prussian sailor leaves quite a bit to be desired.

Security has grown tighter with the changing times. Guards always stood with loaded pistols and ready knives at the powder magazine, knowing that one careless spark or nihilistic saboteur could blow the ship to flinders in a heartbeat. The same now applies to the engine spaces. Hang a monkey wrench on the safety valve, and maybe someone will notice before the boiler sends the ship skyward and the crew further on to Heaven. Access to the turrets and their munitions generally requires a key, copies of which are tracked closely by the ordnance master. The water-tight hatches throughout the ship must be kept closed and dogged down when no one is actively passing through them. There's a regular security patrol to ensure that.

Crew

As noted above, the conversion from sail to steam required an entirely different type of sailor. With no lines to pull, crew shifts have broken up into specialist teams, each with their own duty assignment. The chanties have died away, there being no need for work songs to coordinate physical effort. Today's sailor is a technician, a mechanic, a repairman, someone who operates and maintains a vast floating machine that generates its own motive power and goes where it wills, vagaries of the tradewinds disregarded.

Each sailor normally has two assignments, one for routine work and one when the ship goes to battle stations. For example, when the alarm sounds, the cooks immediately douse all fires in the galley, secure any food under preparation, then turn to as firefighters, medic's assistants, and a variety of other support jobs needed only when the ship has entered the fray. If there are marines on board, and there normally are, serving as the aforementioned security, they assemble on deck in fighting kit, ready to repel boarders or to be boarders themselves, although many officers now regard this as superfluous, given the distances over which naval engagements are fought in this age of rifled guns with considerable accuracy at great range. Every man on board has training in two specialties, all the way up to the captain, as there's no room for someone whose skills only serve in a single capacity. This explains some of the resentment shown to civilian specialists when they travel aboard navy ships.

The word "man" in that last paragraph bears a little discussion. There are no women aboard British navy ships, even in this modern era when women serve with distinction as officers and enlisted in the Army. This has been revisited frequently in discussions among the admiralty, but the fact remains that no captain is willing to be the first to bring a female crew member on board, knowing what would inevitably happen. A proposal for a ship with an all-female crew was shot down

in seconds when the question was raised as to where the necessary seasoned crew for such a vessel could be found. The Navy continues to struggle with this issue, determined to follow Her Majesty's direction to put to use every able and willing pair of hands in the Empire, but unable to find a way to implement it without devastating consequences to the first women involved.

Vehicle Mechanics and Combat

Shipboard Locations

For those unfamiliar with nautical terminology, the basic directional terms used aboard a ship are described here. These terms apply to nautical and airborne ships, but are not normally applied to land vehicles. Starboard (in old times the steering-oar side) is the right side of a ship when facing the bow (front). Port is the left side of the vessel when facing towards the bow, as ships are traditionally tied to the pier on this side. Fore is forward, towards the bow, and Aft is toward the rear (stern) of the ship, or astern. These four cardinal directions create the 6 firing arcs shown below. Fixed ship weapons have a 60 degree firing arc along one of these directions, while turreted weapons normally cover 180 degrees, or three adjacent hexes.

Shipboard Locations Table

Key	Shipboard Location	60° Firing Arc/Direction
1	Bow	Fore (forward)
2	Starboard-Bow	Fore-to-Starboard
3	Starboard-Stern	Aft-to-Starboard
4	Stern	Aft (rear)
5	Port-Stern	Aft-to-Port
6	Port-Bow	Fore-to-Port

Frames of Reference

When addressing vehicle combat, there are three frames of reference to bear in mind as the round progresses. They are, in order of their consideration through the round, Vehicle to Environment, Vehicle to Vehicle, and Vehicle to Person.

Vehicle to Environment

This frame of reference includes any factors that will affect vehicle navigation that do not have any sort of Initiative value tied to them. While this primarily represents environmental conditions such as rain, wind, current, and so on, it can also represent operating conditions affecting a vehicle directly, such as a fire in the engine room. These factors may also have relevance to other frames of reference. As these factors do not have an Initiative value tied to them, they should always be considered or resolved first in the turn order.

Vehicle to Vehicle

The frame of reference to resolve are all points that relate one vehicle to another (or multple vehicles to each other, if there are more in the scene). These factors include, but are not limited to, speed, position (including altitude for air vehicles), heading, and visibility. Declarations of intent to change or maintain maneuvering actions should be declared at this stage. See Orders below for additional details. Vehicles move on the slowest Initiative of any crew members that are involved in executing that movement. Weapons and other aspects of a vehicle that are crewed separately from their movement are able to function independently, but may be required to hold for movement to occur in order to take advantage of position changes.

Vehicle to Person

This frame of reference includes all aspects of a vehicle that relate it to individual characters. Position is an obvious factor here, such as if a character is trying to board or disembark from a moving vehicle. This also may include factors that relate to maneuvering difficulties for the character, such as bracing against a sudden acceleration or maintaining balance on a rocking ship. Finally, this may also relate to a vehicle taking damage and either coming apart and losing cover for a character, or going critical and creating a hazard for a character to avoid. Any hazards to characters created by a vehicle, either by movement or by damage, will begin to take place on the initiative order that the movement or damage occurs, and will affect each character after that order. If a character moved before the change to the vehicle occurred, they will have to make any relevant tests for the change on their Initiative in the next round.

Orders

Unlike individual characters, vehicles require coordination among their crew in order to take actions, and need to be announced prior to the actions of the individual crew carrying them out. Overall actions for a vehicle are delcared by its pilot or captain (or other terminology as appropriate). Crew must hold action until after their captain has given orders in order to be able to carry them out (except for Open or Sustained Orders, see below). Vehicle movement takes place on the Initiative of either the captain or the slowest moving crew member that is required for its movement, which ever is last. Captains are able to take actions related to carrying out their orders during their Initiative (such as ordering a change in direction and making a Pilot Vehicle test to carry it out), but cannot take secondary actions (such as also firing a shot at another character). Personnel aboard a vehicle but not actually taking part in crewing it are able to move freely during their Initiative, within what is possible for the vehicle's position on their turn. Characters whose Initiative is higher than that of the vehicle's movement are allowed to hold action until the vehicle moves to take adavantage of the change in position.

Open Orders

Open orders allow crew members autonomy within their Initiative to decide how best to carry out the intended action. This can include things such as "Fire at will" or "Take evasive

action". In the case of actions related to positioning of the vehicle, these will take place on the Initiative of the pilot or, if the vehicle requires more than one person to change its position, the slowest Initiative of those involved. As these actions can be taken independently, they may cause interference with one another, such as a ship's pilot taking an evasive maneuver to dodge and moving the gunners out of range or line of sight. Open orders allow for quick action and independent decision making at the expense of coordination. Open orders continue until the next Initiative of the captain where they give a new order to change or cancel. As the crew is allowed to act independently for the duration of an open order, the captain may take other actions outside of commanding the vehicle during this time.

Example

The airship HMS Endeavor is on patrol several miles outside of Fort Alice when the ship comes under fire from unknown ground forces under cover. The Captain and crew roll Initiative. Captain Stewart rolls an 8, and the ship's pilot, Lieutenant Commander Spiner, rolls a 9. The Lieutenant Commander holds action until the Captain's Initiative in order to receive orders. Captain Stewart gives an order for evaisive maneuvers, and then fetches his spy glass and rushes to the edge of the deck to search for their attackers. The Lieutenant Commander decides a serpentine is the best course of action at the moment, and immediately veers the ship hard to port. On the next round, both the Captain and the Lieutenant Commander roll 7 for their Initiative. As the ship veers back hard to starboard, the Captain makes his Perception test, and sees the group attacking them is a small Samsut skermish group with limited ranged weaponry, and decides they should easily be able to defeat or rout them with the ship's armament. The following round, Captain Stewart rolls 5 for his Initiative, while Lieutenant Commander Spiner rolls an 8. The ship continues its evasive swerving for this round since the orders to bring her about for a broadside won't come until after the movement action has already been taken.

Sustained Orders

Similar to Open Orders, Sustained Orders allow the ship's crew to move independently on their Initiative, but with a specific action that should be continued until they are ordered to change. Examples of sustained orders can include "Maintain course and speed" or "Steady barrage on the target".

As above with Open Orders, vehicle movement will occur on either the Initiative of the pilot or the slowest Initiative of all crew members involved with carrying out movement. For most vehicles, maintaining the same course and speed do not require full crew involvement to carry out, which may free up some crew members for other tasks as appropriate for the vehicle and circumstances. For weapons crews, orders for sustained fire will cause them to keep firing on the designated target as often as possible until they are no longer able to do so, such as if the target is destroyed, the target is no longer visible or in range, they run out of ammo, or the weapon malfunctions. In any case where a crew member is no longer able to follow a Sustained Order, they will report the interruption to the Captain and hold for new orders.

Example

The HMS Endeavor comes about, and Captain Stewart orders sustained fire on the Samsut forces below. The Captain rolled 5 on Initiative. The main gun turret is crewed by Lieutenant Dorn and Lieutenant Burton, who roll a 7 and a 4 respectively. As the canon requires both crew members to aim, the weapon fires on 4. While the gun crew continues to fire, the Captain is free to give new orders as needed to reposition the ship in order to avoid return fire or gain advantage for a clearer shot. After three rounds of fire from the large caliber guns, the small Samsut patrol sustains heavy losses and scatters, fleeing into the woods. The gun crew relays to the Captain that they are out of visible targets, and holds action as they await further orders.

The Special Case of Trains

Unlike other vehicles, trains do not have free range of motion; their movement is dictated by their rails, and movement between rails is controlled by points (or switches as they are more commonly referred to by those in the Americas) that are entirely external from the train itself. If a set of points are extremely remote and not controlled by a signal box with its own operator, and if they are not set in the desired direction, it will require the train to be stopped before the junction so that someone can jump out to manually set the points over to the correct track (or for a particularly daring adventurer, a very difficult and dangerous called shot to the controlling lever from the moving train). The vast majority of points on rails within the British Empire, as well as most other European countries, are controlled by operators in signal boxes, but very remote areas of the Gruv and some far out places of the Americas that aren't on the main line may still require manual controls.

The lack of maneuvering control on the train itself does not mean that a train requires any less skill to control safely. Remember that the engine on its own may be a hundred tons or more, not including the weight of whatever it is hauling, and that at high speeds it may be moving in excess of 60 miles per hour. There are massive amounts of energy required in order to move that much weight that quickly, generated by the pressure of water heated to the boiling point and released in specific mechanical order. It requires great care and concentration to ensure that a train does not turn into a massive, high speed battering ram propelled by an explosion of water hot enough to scald flesh from bone in an instant.

Despite these concerns, if traveling on a straight, level grade of track, an engine can be left to automate its movement for a short time without direct intervention by the engineer. Treat this as a Sustained Order, with the engineer able to move freely the next round after the speed has been set. While the engineer is not actively attending the controls, the train's movement is handled on an Initiative of 1.

After three rounds operating unattended, roll a Step equal to the train's Speed rating against the engineer's Pilot Vehicle Step. The results of this test should not be shared with players. Success means the train is able to continue operations without issues. Roll this test each round the train continues to operate unattended, adding +1 to the difficulty for each successive round, until the test fails. Failure means a problem has occurred and requires intervention. A Rule of One result increases the severity of the problem, either in magnitude or decrease in time to react.

Examples of potential problems include:

- Pressure is building too high and requires release in order to prevent boiler explosion
- Throttle controls have started to slip, and the train is now either gaining or losing speed
- Insufficient water is moving to the boiler, and if left unattended the heat from the fire will cause catastrophic failure
- A hazard has appeared on the tracks ahead and will require intervention to avoid a collision

Generally, problems will take at minimum three rounds before the consequences must be dealt with. A Game Master may call for a Perception test to notice the problem each round until the consequences take hold. If the engineer returns to attend the operations of the train before the consequences of the problem arise, they will notice it with no additional tests required and may act upon it accordingly. Bear in mind that any solution that requires the train to change speed or stop will take time to enact; as stated above, trains have a lot of mass, and require time to overcome their inertia.

If a train is left to operate unattended in difficult terrain, begin rolling the above test immediately, and if appropriate, add to the difficulty based on the area. Difficult terrain can include tracks that incline or decline at a high grade, include a lot of bends, includes a bridge or tunnel, or has a high probability of a hazard getting in the way of the track. When navigating such terrain, it is common for the train's fireman to have built up the fire prior to entering this area and devote their attention to assisting the engineer, either in monitoring the operations of the engine or keeping an eye out for hazards. A fireman performing as such may make a Crew Vehicle test (or Perception test if they do not have Crew Vehicle) against the same target as the engineer, adding their number of successes as a bonus to the engineer's test. In this situation, an engineer may elect to hold action until the fireman's Initiative in order to receive their help. Similar to above, a fireman may allow the fire to go unattended for up to three rounds before needing to return to it in order to keep the engine up to steam.

1879 PLAYERS COMPANION

Secret Societies

The human mind always makes progress, but it is a progress in spirals.
– Madame de Stael

This chapter presents a number of secret societies to which the player characters, their allies, or their foes might belong. These include two political organizations, the Levellers and the Reasonable Men, one unionists and the other intellectual revolutionaries, and three new magical Lodges. The Theosophical Society, an Order of Mages, seeks the philosophical and spiritual truths that lie in the commonalities between the world's great religions, and have delved further into the nature of magic than most others. Sufis are Islamic mystics, dedicated to seeking personal enlightenment while living in the world but not being of it. The Sisterhood of the Third Unification, a women-only School of Weird Science, seeks the unity of all forces in a mathematical quest for the true nature of reality, and in the process builds terrifying energy weapons.

The Levellers

The Levellers are a working-class movement that pushes for social restructuring along vaguely Marxist lines, labour law reform, an end to corruption in government and business, and the equality of all humanity. Being union organizers and socialists in an early industrial and class-based society led by a monarchy is dangerous. Look at what happened to the first group to bear the name "Levellers" - dispersed and their leaders hung, for the crime of asking for justice.

Origins

Over the course of the 19th century, the situation of the working poor whipsaws between advance and repression. The government repealed the Corn Laws in 1846, ending tariffs against imported grain in the hope of making bread affordable and alleviating the ongoing famine (not restricted to Ireland, but felt most strongly there). This knocked the bottom out of the British domestic grain market. Thousands of tenant farmers were sent off their rented farmland and into the cities when the price of wheat fell but rents charged by aristocratic landowners did not. The Swing Riots rose up in Sussex, starving farmhands fighting back against the mechanization they saw as driving them into the streets to starve. Troops were called in, a highly-biased court was held, and many of the Swing rioters were executed or transported, leaving the cause of the riots unaddressed. The Chartists, who started out as a non-violent petitioning organization, gave the working poor a new voice, motivating them to work though the established system. Chartist assemblies in the streets frightened the upper classes, so recently terrified by the Swing mobs. When violent activists

began to gain control of the Chartist movement, repressive laws were passed against public assembly and against speaking out over social injustice. If you lock down a boiler and leave the fire stoked, pressure builds.

Revisions to the Poor Laws forced more and more people into a workhouse system the entire nation had seen exposed as abusive and corrupt in the recent scandals of Andover and Huddersfield. The determination to halt all charitable work outside workhouses pushed far too many people past the point of desperation. Parliament's revisions of the Factory Laws, which raised the minimum age for child labour and set restricted hours for labour for men, women, and children, had more loopholes than moth-eaten lace, and were honoured more in the breach. The Conspiracy and Protection of Property Act of 1875 legalized union activity, but only to a carefully delimited extent. These measures were simply insufficient, the equivalent of blowing the train's whistle when what was really needed was to release the safety-valve. An explosion was becoming inevitable.

The first Levellers, back in the 17th century, failed to achieve their goals, although their writings had considerable influence on later movements, including the American Revolution. The socialist-democratic movements of the early 1800s sought a variety of ways to correct the evils they saw as persisting in the world. Josef Stiglitz, a Jewish scholar from Prague whose family had settled in London's East End, wrote a comparison between *An Agreement of the People* of the 17th century Levellers and *The Communist Manifesto* of Marx and Engels. Stiglitz called for levelling the political and social playing fields, eliminating corruption and privilege in business and government, and ending both great wealth and poverty so that all men could live equally well. The publication of Stiglitz' paper caused considerable unrest and led to a violent confrontation between poor labourers and the authorities, later to be known as the Fieldgate Street Riot. Stiglitz, who had gone to Fieldgate Street to convince the labourers that violence would not achieve their goals, was among the thirty-seven dead. In the aftermath, a few of the survivors gathered in a pub and decided direct confrontation wasn't going to work, but neither was trying to talk to an upper class that clearly wasn't listening. They needed to take their struggle underground. They took the name of the Levellers, and made two decisions that would shape the future of the movement. To maintain secrecy, they would avoid obvious signs of membership, such as the green ribbons worn by the first Levellers. To prevent the police from halting the movement with a single raid, they broke up the organization into cells.

Goals and Methods

Between the First and Second Civil War, the original Levellers sought equal treatment of all persons by the law, as opposed to the preferential treatment enjoyed by the nobility, as well as extending the right to vote to all men, not just landowners, and tolerance for all religions. The current Levellers seek to bring the benefits of labour to the people doing the labour, and end the feudal remnants of highly class based culture. While still pressing for social and political reform, their views are substantially more Marxist than the previous Levellers, who founded their ideas of nascent democracy on English common law and the Christian idea of natural rights.

While the Levellers are supporters of the idea of religious freedom and will not stand for intolerance within their own ranks, it's not one of their primary goals. As such, while their nominal by-laws specify religious tolerance as a requirement of members, no direct actions are being taken toward creating such an environment in society at large. The Levellers are determinedly secular in their efforts.

Despite their reverence for Karl Marx and Friedrich Engels, the organization has a hard rule against contacting either man in person. Even though they live in London and are readily accessible, the Levellers expect they are being watched by the authorities. Contact with Marx or Engels could lead to betrayal of the movement.

Henry George's new book, *Progress and Poverty*, has caused some dissension among the

Levellers. While the book makes a good argument for its principle, most Levellers disagree with it on the basis that it supports the continuation of capitalism, an exploitive system by its very nature. The more well-read Levellers argue George's solution is far too simplistic, and fails to address underlying corruption of the culture. They see Georgism as the equivalent of putting a new coat of paint on a house with a rotten foundation. A few, however, have taken up the Georgist argument, and point out that holding all land in common is a Socialist idea. Even in a Socialist society, one must still have a way of accounting for value, and for encouraging and rewarding effort, and money works pretty well for that. They see George's idea as a happy medium between the oppressive capitalism of current day England, and the paradise of communism Marx preaches that they believe is unobtainable due to basic flaws in human nature.

The Levellers directly oppose military drafts, press gangs, and similar uses of force of law or person to compel military service. Some of their cells have attacked press gangs and dumped them in the harbour (usually still alive, but sailors are notoriously superstitious about refusing to learn to swim). Others have set fire to draft offices.

The Levellers believe no person is exempt from the law. In a sensational incident just a few months ago, a minor noble was released from potential charges after his carriage ran over and killed a lower-class child. Both the judge and the nobleman came to a bad end a few days later, their coaches set upon by masked mobs, and their bodies left hanging from nearby gas-lamps.

Taxes, especially customs, duties, and fees upon labour, food, and sales, are held to be a burden deliberately placed upon the poor, and those stalwart enough to strike out on their own in business without obtaining a government monopoly. Exactly how to deal with this has yet to be decided, but it's already agreed the small grocer shall not be harassed for collecting the tax upon food-stuffs, as he is held to the action by threat of force against his person and the loss of his business and livelihood. Theft of tax monies collected against the will of the people or to the detriment of the independent business-man is discouraged. It's all well and good to exalt the memory of Robin Hood, but in reality that sort of behaviour results in more police on the streets and a harder time being had by all. However, some cells have found themselves with greater funds for supporting their members through times of labour strikes and other hardships immediately following a mysterious loss of coin by the Customs and Excise Authority.

During the Swing Riots, farmers in Sussex received notes signed by Captain Swing threatening them with being burned alive in their farmhouses if they didn't destroy their threshing machines. The authorities spent a lot of time, effort, and coin trying to track down Captain Swing, determined to capture the leader of the rioters, to no avail. What they didn't know was Captain Swing was a pseudonym, used by whoever was writing the note. Chasing a non-existent leader kept the authorities busy. The rioters frightened their targets more effectively by presenting them with a named enemy who couldn't be captured, instead of a diffuse movement or an actual person who could be brought up on charges. The Levellers have a few pseudonyms they use for similar purposes, including Bob Lewis, a legendary organizer who's always said to be on his way or to have just left.

The Levellers see the Rabbit Hole as a natural resource being exploited by capitalists, likely to cause massive destruction. Direct actions against companies supplying Fort Alice and other New World colonization efforts have included sabotaging factory equipment to halt or delay production, tainting black powder in a Boxer-Henry cartridge works, and slipping mice into bags of grain destined for Fort Alice. Some Levellers believe if enough of their membership could pass through to the New World, they could split off from the military-controlled expeditions and found a workers' paradise in the wilderness. These cells are trying to get some of their people into Fort Alice with forged papers, so they can then smuggle Leveller propaganda for distribution in the New World and start accumulating tools and materiel toward a Leveller colonization effort.

Organization

Leveller organization is cellular, with one person from each cell knowing one person from another cell. Maximum cell size is eight. In theory, no one person should know the number of cells in place in a business, factory, or other organization, but in operation this tends to be honoured more in the breach, as planning for and coordinating actions reveals the number of cells to the planner. After a large operation cell members are encouraged to move on, find new jobs, preferably at previously unorganized factories, or otherwise make themselves scarce. The organization has by-laws but these were written by the founding cells and have since propagated and mutated considerably. No cell has authority over any other cell and so the by-laws are nominal at best, themselves sometimes honoured more in the breach. With no central control, Leveller cells have been known to embark on violent direct actions, bringing the authorities down upon cells whose only direct action had been to organize non-violent labour strikes.

Resources

The Levellers have out of necessity become masters of operating with no budget at all. They rely on working-class traditions of making do or doing without and on socialist ideals of sharing whatever there is with whoever needs it. This has allowed the Levellers to succeed in some cases where a more well funded group might have failed by encouraging their ability to improvise and to use what's ready to hand, but at other times has kept them from being effective. On a few rare and notable occasions, wealthier members of the society have made large donations to the cause, but this money quickly vanishes, partly out of fear of such a large sum attracting attention, partly out of the constant needs of the Levellers and their members' families which can consume any amount of cash before it's even counted.

Membership

Most Levellers are workers in the factories of London, Manchester, and similar industrial cities. Levellers say "never trust a man with clean hands", referring to the ingrained grime and callouses that mark a factory labourer. Family members are generally kept in the dark, told only what is necessary, in order to keep the society and its work secret. Intellectuals and members of upper social classes are admitted to the Levellers, but only with the unanimous vote of the admitting cell. Even then, the prospective member must usually prove their commitment to the cause, sometimes through published statements of their ideology but more often through supplying the cell with information, tools, or resources, or taking part in a direct action.

James D'Ampton: The descendant of minor nobility whose family fell into genteel poverty after an unknown creature ravaged much of their livestock, James studied under the legendary engineer Isambard Kingdom Brunel. Sadly, James didn't have quite the flair for engineering as his famous mentor, and is currently employed as a metallurgist, stress-testing parts for the Rabbit Hole rail system. Cleverly, the Levellers recruited him into the organization based on their social platform, appealing to the legacy of honour and duty that comes with the D'Ampton family name. James is debating how to implement his cell's requests. He cannot justify working beneath his own standards, nor sabotaging his employer's products and thus putting lives at risk, but he does have an opportunity to help with the smuggling effort and the work of establishing a Leveller presence at Fort Alice and points beyond.

Liam O'Rourke: A descendant of Irish mine workers, Liam was brought up in the labour

movement. His family came to London thirty years ago, leaving the coal fields and their grinding poverty for the factories and slums of the city (not much of a step up if you ask them). At the age of twelve, Liam went to work in the textile mills, losing two fingers off his left hand in a Jacquard loom before he grew too old and large for the job. Since then, he's moved on to heavier labour in the same industry, rising to foreman in a mill in Spitalfields. Liam has put his spare time to good use, reading everything he can lay hands on, and sharpening his wits and debating skills in the pubs and meeting halls. Now in his early forties, with the strain of years of hard factory labour wearing him down physically, Liam has put his mind to work organizing for the Levellers. His fiery temper held savagely in check and used as fuel for his determination, Liam never gives up, and has argued a large number of his fellow workers round to the Leveller way of thinking. Frustration at the slowness of progress, though, is wearing on him, and if the Levellers don't achieve a major victory soon, he may be found at the forefront of a wrecking crew some dark night, achieving by physical force what his beliefs and words have not accomplished.

Maria Von Bretten: The naïve, overly earnest daughter of Freiherr Karl Franz von Bretten, of the Grand Duchy of Baden, a Prussian industrialist, Maria came into contact with the Levellers through a school for the children of factory labourers she founded and taught in from 1874 through 1878. She began slipping the children whatever coin she could come by, along with food, clothing, and other necessities of life, becoming somewhat adept at juggling her personal finances to hide her charity from her father. Grateful parents developed a relationship with Maria and eventually came to trust her enough to begin sounding her out as a possible ally for the workers' cause. As Maria debated whether to involve herself in labour politics, industrialists pushed local officials into closing a flood-wall along the Shadwell Basin, diverting springtime floodwaters away from the factories. The school building was inundated, drowning most of the students. Maria suffered a nervous breakdown after being pulled from the wreckage. Her father sent her back to Prussia to recuperate. Shortly after her return home, she slipped away from her caretakers and made her way back to England with a sizeable amount of coin, most derived from selling small family heirlooms she took with her on her departure. In the guise of Maria Harbou, she has opened an orphanage in Wapping. She spends her evenings in Leveller meeting halls and gathering places, preaching a semi-coherent doctrine of reconciliation that mashes together Leveller philosophy, Christian mysticism, and the fevered imaginings of her own mind, still overburdened by grief. Maria believes a great prophet will come who will present the arguments of the workers in such a clear way, and with the obvious approval of Heaven, that the industrialists will have to accede to the workers' demands. She's beginning to develop something of a following.

Enemies / Allies

The Levellers generally hold themselves apart from other labour and political movements in an effort to keep themselves hidden. They've allied with labour unions in solidarity during strikes and supported social reform at the street level, but these are marriages of convenience, quickly dissolved when the effort is completed. As previously stated, they avoid contact with well-known political figures for fear of police observation. Their enemies are many and powerful, and include the police, Parliament, and every wealthy industrialist in England.

Terminology

Blackleg: A worker who crosses a picket line or breaks a strike to perform labour.

Bob Lewis: A legendary organizer and leader of the movement who's always said to either be on his way or to have just left. In reality, Lewis is a way of distracting authorities into hunting a non-existent man. The wild goose chase keeps the government from having enough men to track down the real organizers.

Direct Action: Any potentially confrontational activity of a cell or multiple cells. Distributing

literature to factory workers is not a direct action. Rallying those same workers to strike against their employer is a direct action. Cells normally require direct actions to be approved by consensus or unanimous vote.

Salt: To "salt into" a factory or firm is to take a job there with the express purpose of organizing the workers.

Scurf: an exploitive (beyond the normal) employer

The Reasonable Men

Properly the *Fellowship for Empirical Thought and the Advancement of Reason*, the Reasonable Men are radical atheists who believe in a well ordered, mechanistic universe, and seek to stamp out all belief in the supernatural. They hold that faith in or reliance upon the supernatural restrains the mind of Man from achieving its full evolutionary potential, keeping the human race from making the Great Leap Forward into the next level of existence. The Fellowship's motto, *Magnum saliet non requirit fidem*, translates as "The great leap does not require faith", referring to the advancement of the human race by triumphing over superstition.

The motto of the Reasonable Men derives partly from the last words of Thomas Hobbes, *Magna saliet in tenebris*, translated as "a great leap in darkness", although it could also be translated as "a great leap into darkness", implying the destination cannot be known but the leap must be taken regardless. The phrase *Je n'avais pas besoin de cette hypothèse-là*, attributed to the French physicist and mathematician Pierre-Simon Laplace, also contributed to the motto. When asked by Napoleon why he had not included God as the Prime Mover in his book on astronomy, Laplace allegedly replied "I had no need of that hypothesis."

Origins

The Reasonable Men first came together in 1668, in reaction to the censor of Britain denying Thomas Hobbes a license to print his book, *Behemoth*. A small group of scholars felt no line of inquiry should be stifled by a government official. They deliberately broke a law they believed to be unjust by engaging the services of Ernest Chapman Bradbury, a printer in Cambridge. Bradbury printed a run of five hundred copies of *Behemoth* on a hand press in a back room of his shop under the guise of replacement student prayer books for the University. The books were privately distributed, with no publisher's imprint other than the Latin word "Veritas", or "Truth", over a picture of a key. The Royal Censor made a brief inquiry upon the book being brought to their attention, but found the responsible parties covered their tracks thoroughly. The inquiry was closed on the grounds of insufficient evidence to justify further investigation. The scholars progressed from Behemoth to other books frowned upon or outright banned by the Crown. Growing bolder and more dedicated with each successful effort, but realizing secrecy must be maintained, the scholars organized themselves into an initiatory society in 1674, creating the Fellowship.

From a staunch opposition to any restraint of inquiry, the Fellowship moved on to the empiricist idea of a mechanistic universe that does not require the existence of any supernatural being, and from there to an outright rejection of religion and superstition. In 1726, atheism became the official philosophy of the Fellowship, and was written into its by-laws, the initiation rites and oaths becoming more complex in the process to secure the safety of the members. Atheism was illegal, after all. Men who espoused religious views contrary to those of the Church of England were no longer flogged, nor had their tongues pierced with red-hot pokers, like the Quaker back in the 1600s, but just denying the Trinity was sufficient to leave one excluded from holding office of

any sort for life. Openly denying the authority of the Anglican Communion ended in financial ruin, imprisonment, and sometimes transportation, effectively a death sentence. The Reasonable Men, as they now called themselves, found this intolerable, and sought ways to put an end to the power of religion.

By the beginning of the 19th century, the Fellowship had spread well beyond academic circles. Still open to new members only by invitation, and then only after careful vetting of potential inductees, the Reasonable Men found fertile ground for their ideas at the dawn of the Industrial Revolution. Little by little, they began taking more direct action against the dominion of the supernatural, which they saw as a corrupting influence in politics and in society. A few words in Edward Miall's ear in 1844, and a purse put at his disposal, and the Liberation Society rose against the Church of England. The ideas the Chartists had spread during their brief run at creating a more egalitarian society brought together those of liberal political persuasion, those who disagreed with Anglican theology and policy, and those who felt oppressed by the Church of England. In 1853, the Liberationists campaigned to disestablish the Church of England, to remove its official position as the state religion. By then, Miall had been instrumental in the election of some forty religious dissenters to the House of Commons, and a Parliamentary battle arose. Disestablishment would have nullified the blasphemy laws by taking away the basis of their power, that being the need to protect Anglican Christianity as the founding philosophy of the legal system. The law itself would have been rendered secular. While the Liberationists failed to dethrone the Church of England, the Reasonable Men achieved a victory of sorts. They proved to themselves they could influence public opinion and government policy through a front organization. Many of the legal penalties non-Christians and non-Anglican Christians faced were removed from the laws of England as a result of the Liberationist campaign.

The rise of spiritualism in the United States worried the Reasonable Men. They likened its spread to the United Kingdom to a virulent disease carried across the ocean, affecting the mind and poisoning it with strange beliefs. Women seemed to be especially susceptible to spiritualism's lure, with its promise of contact with loved ones who had passed beyond the veil of death. This led to two momentous decisions by the ruling council of the Reasonable Men. In the first, the council encouraged the recruitment of women, not only opening the Fellowship to the fairer sex, but actively seeking out women who would accept the Fellowship's beliefs, by-laws, and goals. "We can no longer restrict our membership to men only," the Chair stated in his comments on the decision, "but must admit those women whose strength of mind is sufficient unto the purpose, or risk losing such women to the lure of spiritualism and superstition. It is better that we support all those who resist the non-rational than maintain the male-only tradition." In the second, the council decided that direct action was required to combat this new peril. "One does not treat a disease with soothing words," the Chair commented. "One applies the most vigorous remedy available." The Fellowship built new front organizations to investigate and expose spiritualists as frauds, interfered with supplies for spiritualist periodicals, raised the rents on spiritualist meeting-halls, and took whatever other actions they could without exposing their own organization. The council advised a cautious and intermittent approach. Opposing quackery and fraud is a fine and noble activity, but if one prosecutes the cause too vigorously, the public may come to equate one side with the other, and regard both as equally irrational. With the return of magic, this goal is being revisited, but the necessity of exposing fraud remains.

In the modern day, the Reasonable Men continue the goals of their forebears: to promote rational thought, to advance the empiricist philosophy and the idea of a mechanistic universe, to oppose superstition in whatever form it may take, and to provide support and a safe environment for those who subscribe to these beliefs and goals.

Goals and Methods

The Reasonable Men work in secret, remaining behind the scenes or at the command post rather than being on the front lines themselves. Having substantial resources, both in money and influence, the Reasonable Men create front organizations, provide support to politicians, call in favours, and recruit mercenaries as needed. Quite often, individuals and organizations work for the Reasonable Men without knowing who their employers really are. Standard procedure requires two or three layers of cut-outs and fronts. For complex or risky operations, the Reasonable Men may distance themselves by four or five layers of increasingly baffling misdirection.

Disestablishment of the Church of England remains an important goal, but in light of the recent failure of the Liberationists, a new approach is required. If you give official sanction to one faith, all others are denigrated by definition. Therefore, Parliamentary representatives under the guidance (and financial support) of the Reasonable Men will soon introduce a motion to revoke the Anglican Church's status as official religion of England on the grounds of religious tolerance. Of course, once the Anglican Church is dethroned the next goal will be to abolish it entirely.

While the Reasonable Men vehemently oppose all religion, they prefer to do so non-violently. They regard violence as an admission that one's argument was insufficient, a sign of mental weakness. On the other hand, that weakness could be on the part of the opposition. Superstition clouds the mind and cripples the intellect. If the opponent has been rendered too feeble-minded by their belief in the supernatural to comprehend the argument, a sound thrashing may have to suffice. This would be where the aforementioned mercenaries enter the picture.

Having seen the initial field reports from contact with the Samsut, the ruling council is certain some form of advanced technology motivates the cadavers, possibly the same energy source that powers the Samsut weaponry. Obtaining that technology would give the Reasonable Men a considerable advantage over their foes, as well as allowing it to be turned back against the Samsut, once in the hands of British troops. No price or risk is considered too high to bring that technology back through the Rabbit Hole for study and possible replication. If transport of Samsut technology through the portal proves impossible, as it has with other artefacts found in the new world, a research team must be dispatched along with the support staff and materiel necessary to construct a proper laboratory in Fort Alice or points beyond. The Reasonable Men, or their front organizations, will of course pay handsomely for any Samsut artefact, from heavy weaponry down to the smallest scrap of writing, that a clever adventurer brings to them.

The recent publication of the evolutionary theories of Darwin and Wallace caused great excitement among the Reasonable Men. Although dismayed by Baden Powell's statement that evolution made the idea of creation rational, as it dispensed with the necessity of miracles which violate the very laws the Almighty wove into His Creation, the Reasonable Men saw in this theory the goal for which they had been striving. Great effort and no little expense had been incurred bringing the theory to fruition over the past twenty years. Darwin was approached about possibly joining the organization, but proved unsuitable due to his increasingly unstable mental condition. Publication of tracts, articles, and books that support the secular nature of the theory is receiving substantial capital, while documents supporting religious explanations of evolution, or opposition to the theory, are having a hard time reaching their market. Paper supplies are diverted, presses damaged by vandals in the night, and publishing houses find themselves threatened financially, legally, or physically, depending upon the strength of their resistance.

Technological enhancement of the human body distracts from advancement of the human mind. While the Reasonable Men do not oppose the development of better prosthetics for those injured in battle or factories, they discourage the use of prosthetics or other devices for enhancing physical abilities. A monocle that allows one to see beyond the normal spectrum of light counts as scientific apparatus. Replacing a perfectly good eye with an artificial one in order to have the ability at all times engages one in the senses to the point of distraction from higher thought.

Since the rise of the global mana field has been proven, the Reasonable Men are investigating the phenomenon thoroughly, using the same approach as with any other scientific inquiry. While the first scientific magicians did not come from within their ranks, the Reasonable Men being more cautious and conservative than the Ordnung Galvanische, they do in fact have such at this point.

Front Organizations

Some of the following are legitimate groups or firms in their own right, and have been infiltrated or influenced by the Reasonable Men to support the cause. Others are shells, convenient masks worn by the Fellowship to cover its activities, readily discarded if the need arises.

The Ghost Club

Founded in 1862 to apply scientific methods to potential manifestations of the supernatural, the Ghost Club counts a number of illustrious men and women among its members. The noted author Charles Dickens was an active member in the later years of his life, and took part in the investigation of the Davenport Brothers' spirit cabinet. The exposure of the Davenport Brothers as frauds, using stage magic techniques to deceive the spiritualist community, gained the Ghost Club a certain notoriety. The spiritualist periodicals called the Ghost Club quite a variety of unpleasant names, taking out their displeasure over the deception on the ones who revealed it rather than the perpetrators. This led to an ongoing battle between the Ghost Club and spiritualists, which fell apart when Dickens abruptly died in 1870. After the great author's passing, the Ghost Club fell into obscurity for a time. In March of 1878, the Ghost Club returned to activity of a sort with the exposure of Mrs. Abigail Pennyworth, a medium of some repute who was discovered to be using an ear-piece telegraphic receiver. Her confederates in the next room would watch her customers, go through the pockets of their coats, and perform what crude research they could on short notice. They would then feed this information to Mrs. Pennyworth via a telegraph key, the medium listening to the clicking of her earpiece and decoding it while appearing to be in a trance listening to the spirit world, no mean feat really. Since then, the Ghost Club has carried out a series of scientific investigations of purportedly haunted locations, and flushed out a few more frauds among the spiritualists. They appear to have a new benefactor, who supplies them generously with the latest scientific apparatus and considerable funds for travel and expenses, but it would of course be rude to inquire as to the identity of such a person.

Hatley and MacTavish

With a reputation for daring, and sometimes unusual, acquisitions, the investment firm of Hatley and MacTavish maintains a sizeable staff of engineers, accountants, and other specialists skilled in evaluating the worth of a business. They visit the sites of manufacturing firms, import/export businesses, and trading ships, to determine whether or not Hatley and MacTavish should acquire the business outright, invest in it, or pass on the opportunity. A good deal of money passes through Hatley and MacTavish on its way out to the firm's acquisitions, and back to the shareholders and officers of the firm. Of particular note is the Special Enquiries office, a service not advertised to the public. The men and women who work for Special Enquiries go in and out of the front entrance under their own names, but pass through the service entrance at the rear under the name of Fagin.

The Laplace Society

The weight of evidence for an extraordinary claim must be proportioned to its strangeness.
- Pierre-Simon Laplace

Formed originally as a philosophical society, the Laplacians entered the political arena around the time of the Liberationists' defeat in Parliament. They apply a rational reductionism to all affairs, looking for the best explanation with the least number of assumptions. Apparently well heeled, the Laplacians have been routing considerable financial support to elected officials and campaigns that agree with their ideals, and financing opposition to those who support religiously based laws and engage in spiritualist pursuits. As with any private debating society, they keep their membership list secret. It would of course be bad form to inquire as to the source of their recent increase in wealth.

Organization

Structure

As with any academic society, the Reasonable Men maintain a great sensitivity to rank, ritual, and achievement. Entry into and progression within the society is partly based on published work. A man or woman who has not had a paper accepted or a tract see print is unlikely to even be invited to join. To become a master, one must seriously advance the cause of science in a way that also advances the goals of the Fellowship. The specific ranks within the Fellowship, and advancement from one to the next, are dealt with in the section on Membership, further along.

Departments are organized geographically rather than by academic discipline, and take the place of chapters or cells used in other secret organizations. A department will normally include more than one Professor, and a Dean, but may range from a handful of members to dozens. Within the Fellowship, a small department is sometimes referred to as a lyceum or ecole, while a very large department is called an academy. Considerable debate has arisen within the Fellowship about breaking up the academies, as such large departments present greater risk of exposure to the world.

Regalia

The Key is the signet of the Reasonable Men, an iron skeleton key engraved with the Latin word "Veritas", meaning "Truth". The item has multiple symbolic values, which are explained at each successive level of initiation. The Key is not normally displayed except on ceremonial occasions, when non-members will have no chance to see the item. Showing a Fellow of the society the Key in any other situation conveys a sense of urgency, and potential danger, and commands the attention of all present.

Academic dress is mandatory for rituals and formal meetings. The only notable point of difference between ordinary academic dress and that of the Reasonable Men being the Key, owning this sort of garb is unlikely to attract attention.

Rank	Gown	Headgear	Additional
Student	Plain black	Mortarboard cap, no tassel	Key worn on a chain about the neck to remind the Student of the burden of knowledge.
Scholar	Black with a dark red border	Mortarboard cap with a red tassel, hung over the left forward quarter	Key moved to a wrist chain, so that it is ready to hand.

Rank	Gown	Headgear	Additional
Fellow	Black with a bright red border	Hood, black with a bright red border, worn down except during advancement ceremony	Key moved to a waist chain.
Professor	Black, with a white border and a white stripe across the upper arm	Hood, black with a white border, worn down except when lecturing or officiating	Key remains on the waist chain. White stole with dark red border worn when lecturing or officiating.
Dean	Dark red with a black border and a black stripe across the upper arm	Hood, dark red with a black border, worn down except when lecturing or officiating	Key moved to a chain of office around the neck. White stole with black border worn at all times.
Chancellor	White with dark red and black border, and three stripes across the upper arm, the outer two dark red and the centre black	Hood, white with dark red and black border, worn up	Key placed next to the Chancellor's Scroll on the chain of office. Dark red stole with black border worn at all times.

Recognition

The Fellowship uses a wide variety of secret signals for recognition. At each rank, the members learn passphrases and gestures, both to recognize and to warn off, to assure another member it is safe to discuss Fellowship business and to give the alarm quietly that the situation is dangerous, that there are spies or enemies about. The sequences are complex, and any of the gestures or passphrases may be used in any combination as long as the math works. For example, a series of gestures, plus asking about the time, must add up to a prime number in order to be valid as a safety identifier. A recognition sequence that comes out to a non-prime number, or that includes a warning-off gesture, indicates trouble. A sequence that meets both criteria is a cry for help. The equations rise in complexity with rank in the Fellowship, and are changed at irregular intervals to frustrate the organization's enemies.

Resources

The Fellowship has few concerns when it comes to finance. Between academic sinecures that ensure the leadership never has to worry about income, donations from the lower ranks and allies, monies skimmed from front organizations, and shrewd investments, availability of ready coin is not a concern. Having some of the leading minds in economic theory among its ranks bolsters the Fellowship's confidence, and indeed its efficacy, in the financial arena. They've got political influence by the shovelful, with elected representatives all the way up to Parliament beholden to the Fellowship. The section on Front Organizations gives some idea of the other resources of the Fellowship.

Membership

Rank

New members join at the rank of Student, no matter what their previous accomplishments. They are expected to obey the demands of the Masters without question, as unproven scholars, and to accept the guidance of the Fellowship's hierarchy without protest. Students may not commence any work on behalf of the Fellowship under any circumstances, but will be required to perform the low-level work necessary for the projects of those of higher rank.

After noteworthy achievement and approval of the Fellows, the Student advances to Scholar, and inherits responsibility for the training and advancement of Students. Scholars assist the higher ranks in their projects as required.

A Scholar who acquits themselves well, advances the goals of the Fellowship, and meets the academic requirements, graduates to the rank of Fellow, at which point they gain authority to organize small projects of their own, which must be approved by a Professor.

The next step up being Professorship, the academic and achievement requirements become strenuous. The potential Professor must defend their work to the Professors of their department, and survive an interview with the Dean. Once invested as a Professor, the member may initiate large works on behalf of the Fellowship, and are subject only to the authority of the Deans and the Chancellor. Professors are expected to source their own budget, recruit promising new Students, and generally advance the Fellowship with little or no guidance from above.

Deans are elected from among the Professors when a vacancy in office occurs. An administrative position rather than an academic one, a Dean manages the budget for the Professors in their department, approves or rejects project proposals that would affect the entirety of the department or require resources beyond what the professors are able to secure on their own, and officiates over the elevation of Fellows to Professors.

Above the Deans sits the Chancellor, elected from within the ranks of the Deans, and who holds final authority over the Fellowship as a whole.

Initiation and Advancement

The initiation of a student involves investiture with cap and gown, signing of the Membership Roll, and the swearing of the First Oath, in which the new Student promises upon their own integrity to keep the secrets of the Fellowship, to obey the Masters, and to learn all that may be learned. The new Student is presented with a Key, and instructed to use it to unlock the door of reason. The Student literally unlocks the door into the inner meeting hall, letting themselves into the sanctum by their own efforts, and is recognized within as a member of the Fellowship. Any member of the Fellowship may attend the investiture of a new Student. Further advancement ceremonies are restricted to those of equal or higher rank. Thus, Students may not attend the ceremony for advancement to Scholar.

Advancement to Scholar involves the swearing of a further part of the oath, in which the Scholar promises to advance the causes of the Fellowship, and to seek out new opportunities for learning. The Key is moved from the neck chain to a chain about the wrist, with emphasis on its being "ready to hand". The Scholar is told the second part of the Symbology of the Key, that the existence of the Key implies the existence of the Lock. It is no longer sufficient to open doors as they are presented. The Scholar must seek out doors of their own. Investiture with new regalia includes the replacement of the plain Student's gown with the red-bordered gown of the Scholar, and the addition of a tassel to the mortarboard, initially placed on the right front quarter. The new Scholar moves the tassel to the left front quarter after taking the oath.

For a Fellow, the Key is moved from the wrist to a chain about the waist. In ancient times, the chatelaine carried the keys of the castle in similar fashion. The Fellow carries the Key to Knowledge thusly to symbolize their responsibility for the store of knowledge of the Fellowship, and

for distributing it as needed. The third meaning of the Key, being the power to restrain or to set free, is explained. While the Fellow is invested with an academic hood, of the mantle and liripipe sort, the hood is raised only for the swearing of the oath, then brought back down, as a Fellow should remain bare headed in token of humility.

A new Professor has a stole added to the academic regalia, in token of their position as authorities in their field. The fourth meaning of the Key is not explained. Instead, the pun on the name of John Locke, an important figure in the Fellowship's origins and philosophy despite his religious convictions, is presented as a challenge for the new Professor. How could the works of someone so convinced of the necessity of religion be critical to the Fellowship?

Advancements to Dean and to Chancellor involve no new mysteries. Being administrative rather than academic, the rituals may be attended by any member of the Fellowship above the rank of Student. The oaths are themselves administrative in nature, promising to use the best of judgement in guiding the Fellowship academically, financially, and politically. Resemblance to the consecration of Church officials is carefully avoided.

Secrecy

Documents are kept in a series of highly complex multi-layered ciphers, one for each rank. Keys to the cipher are themselves kept down to just a few copies. Fellows, Professors, Deans, and the Chancellor are expected to memorize the cipher key as part of their ascension to office.

The Fellowship invokes harsh penalties for revealing its secrets. Most Students hear about Frederick Bolger before their initiation ritual, a young man who let his new status go to his head. Just a few weeks after his induction into the Fellowship, he showed his Key to a young woman in a pub in an attempt to impress her with the hint that he was part of something special. On their

way to his room, over a tinker's shop just two blocks away, the potential lovers were dragged into an alley. One of the assailants held a cloth over the young woman's eyes, assured her that no harm would come to her if she held her silence about the night, and let her go on another street with eight pounds in a coin purse pressed into her hand. Frederick's throat was cut, his money and his Key taken, and his body left in the alley. When the mortician's assistant went to Frederick's room the next day, sent to fetch clean clothing to dress the corpse in, he found the room empty, down to the last speck of dust. Sadly, the young woman attempted to tell her story to the police, but when they found her in possession of Frederick's coin purse, she was convicted of theft and murder, and hanged.

Scholars learn the story of Zachariah Constance, who had set out for Vienna to pursue research there for the Fellowship. Agents of the Prussian Empire, suspecting the young man of being a courier for a spy network, took him prisoner and tortured him for two days, trying to break him and learn what secrets he kept. On the third, Zachariah was found dead in his cell, apparently having taken poison during the night. No explanation was ever found as to how a prisoner under question obtained poison.

Enemies / Allies

The Reasonable Men, as an organization, have no allies. To make alliances would require revealing the existence of the Fellowship. As individuals, however, they have many friends, and cultivate a roster of favours owed. Masters of the Fellowship tend to hold high offices in government, in academia, and in business. Their positions enable them to build networks of colleagues, political allies, shareholders, investors, fellow officers of society. Of course favours can be done. This is how the world actually functions, after all, the powerful seeing to it that each other's interests succeed in return for their own interests being advanced. Of course there are hidden agendas, but everyone at that level of society has them, and it would be bad form to inquire as to exactly why this particular favour should be done, as long as there's no risk in doing it.

The Anglican Church has long suspected the existence of something akin to the Reasonable Men, based on the effects of the Fellowship on the world. While the exact nature of the organization has yet to be determined, the Church knows there is organized resistance to the established faith of the nation. The increasingly effective strategies of the opposition reveal it, just as the crack of a gunshot and the sudden death of an officer reveal the existence of a sniper. The archbishop has made gaining definition on the enemy a priority, but the Church is hampered by a lack of resources, primarily manpower. To correlate the information required to define an enemy from the end results of its actions requires a small army of clerks. A petition has been submitted to Parliament to purchase an Analytical Engine for the Church, ostensibly for handling membership records, finances, and the like. The archbishop hopes the Engine may be able to handle the correlation efficiently enough to finally reveal the force opposing the faith.

The Sufis

Sufi chist? Sufi Sufi'st. (What is a Sufi? A Sufi is a Sufi.)

Generally associated with Islam by Westerners but found in many religions, Sufis follow an esoteric, mystical path that concerns itself more with understanding and motivation than with theology and dogma. A Sufi must live in the world, but not be of it, and must be ever mindful of the twin pillars of Love and Honour. To properly understand Sufism, one must practice it, as knowledge without the understanding that comes from experience has little value. The regenerated Sufi becomes aware of the true nature of reality, gains insight into it and some measure of power over it, but may lose sight of those things prized by the unregenerated, such as possessions or

finance. Use of magic squares, charms, and talismans, healing with a touch or a look, and control over djinni and demons may all be part of a Sufi's work, but their goal must always remain wisdom rather than material gain.

Sufism is a process, not a thing. Trying to capture its stages in rigidly defined quantifications destroys the thing being measured. And yet we will try, for the sake of the game and to introduce a mystic path into our world.

Origins

He who tastes, knows.

Nobody really knows how far back the Sufic tradition goes, and Sufi teachers say that it's not relevant anyway. What matters is what Sufism is now, how its practitioners live today, and what they will do tomorrow. Unlike some practices, Sufism keeps pace with the needs and realities of the community in which it exists. Asceticism, monasticism, or any other withdrawal from society and separation from the world deprives the Sufi of necessary experience. Instead, the aspiring Sufi takes honest work, serves their community as best they may, and aspires to live an enlightened life in the midst of their neighbours. This results in the actual practice evolving over time, to align with the environment in which the Sufi lives.

Pears are not only found in Samarkand.

Sufism is a form of thinking clothed in a religious format, concerned with growth and the organic evolution of humanity. Its practice may be found in any culture that permits questioning of basic assertions of reality, and that understands and appreciates the transcendent. While Sufism had its greatest flowering in the Maghreb, the Islamic world, this is less due to the dogma of Islam and more due to the concepts in shari'a that allow exploration of esoteric philosophy as long as the foundational assertion of faith is made. Among Christians, Sufic practice and thought tend to take other names, and keep a low profile, as Christianity tends to be suspicious of philosophy that does not hew tightly to the straight and narrow path described in European traditions. There are questions one is simply not allowed to ask, which the Sufi must ask. Judaism has a greater tradition of religious questioning, of theurgical argument, but still has its traditions to which the practitioner must conform, among them language. One of the great Jewish Sufis, Avicebron, also known as Solomon ibn Gabirol, was mistaken for an Arabic philosopher for many generations due to his greatest work having been written in Arabic rather than Hebrew. Avicebron did not do this to hide his work from the Jewish community, but because of language constructs that exist in Arabic that are key to the philosophy, and that do not replicate in Hebrew. Sometimes the tools required for a task just aren't available locally.

Goals and Methods

People sell talking parrots for huge sums. They never pause to compare the possible value of a thinking parrot.

As with many mystic orders, the ultimate goal of Sufism is for the Seeker to attain enlightenment, and then to bring that enlightenment back from their journey and help others achieve it. Side effects are expected, such as promoting social harmony, increasing happiness in the population, and developing understanding between people with different beliefs.

The follower of Sufic practice will not call themselves a Sufi until they have mastered the practices, attained enlightenment, and added to the body of knowledge and tradition. Even then, they may only accept the title of Sufi if it is bestowed upon them by recognised masters of the Path, and will not arrogate it to themselves.

Numberless waves, lapping and momentarily reflecting the sun – all from the same sea
– Halki

Sufic writings should never be taken at face value. The truth of the statement is less important than its value, the symbolic associations it creates, the allegories and root-word linkages established. Like a *koan* in Zen, the wording is not meant to be accepted literally, but to be considered, to see what connections and insight might be discovered. Sufis are often gently subversive, hiding their teachings in allusions to wine and grapes, or under cover of practices such as alchemy, in order to slip their teachings past suppressive authorities.

Information and experience are bound together. While people may agree as to what is fact, what has objective existence, the meaning of a fact varies through how it is experienced. Gravity exists, everyone may recognize this, but gravity is experienced differently by a rocket scientist than by a gymnast. Gravity means something very different to a mountain climber than it does to a baker. Experience cannot be separated. Information will always be seen through its lens.

Nasrudin used to take his donkey across a frontier every day, with the panniers loaded with straw. Since he admitted to being a smuggler when he trudged home every night, the frontier guards searched him again and again. They searched his person, sifted the straw, steeped it in water, even burned it from time to time. Meanwhile Nasrudin was becoming visibly more and more prosperous.

Then he retired and went off to live in another country. Here one of the customs officers met him many years later.

"You can tell me now, Nasrudin," the customs officer said, "what was it you were smuggling when we could never catch you out?"

"Donkeys."

Harrison Wintergreen may have been inspired by this story in his recent trip to Mexico. Like all materialists, however, he completely missed the point.
– Carlton Thornhill, London Academy of Practical Spiritualism

Much of Sufi writing is in the form of poetry, using complex allegory and wordplay based around Semitic consonantal roots to imply deeper meanings. The more the Sufi contemplates the poem, the more depth they find. For example, the palm tree has the triconsonantal root NKHL in Arabic, which, like Hebrew, is written without vowels. This same root with a different vowel set becomes "a fine essence descending almost impalpably", often interpreted as baraka, the divine essence. The word can also mean "sifted flour" or "a gentle drizzle of rain". In Arabic culture, the palm tree is associated with birth. Making reference to a palm tree in a poem, therefore, can imply a source of divine blessedness as one interpretation. Again like a *koan*, the student must contemplate the allegory to find meaning within it.

Nasrudin was seen walking through the town with a few people following him. Every so often, he would suddenly bend down, touch his toes with his fingertips, then leap up with his arms flung into the air over his head and shout, "Hu! Hu! Hu!" His followers would straight away do likewise. A friend stopped the mullah and asked him, "What is this you are doing?" The mullah said, "I am known as a shaykh, so these people have become my students, seeking enlightenment." The friend was puzzled, and asked another question. "How does this lead them

to enlightenment?" Nasrudin smiled and said, "They become enlightened when they figure out to stop doing everything I do!"

Terminology

Sufic practice, like other mystic traditions, has specialized words that convey meaning within the tradition. Following is a brief glossary of a few terms that the Seeker may encounter. Bear in mind no technique remains useful forever and definitions change. The Sufi accepts that change is inevitable, and that even the method of teaching must evolve over time.

Know the difference between the colour of the wine and the colour of the glass.

- **arif:** gnostic or Adept, one who Knows, who has attained a holistic understanding
- **fakir:** a person who is humble, poor in spirit, who avoids materialism to focus on the spiritual
- **hal:** state, the mystical experience
- **ilm-al-maarifat:** the Science of Knowing, of achieving an intellectual and intuitive grasp simultaneously
- **ilm-i-hal:** the Science of State, which observes, quantifies, and applies hal
- **irfan:** gnosis, ultimate realization
- **makam:** stage, degree of knowledge of objective truth gained
- **murshid:** spiritual director or mentor
- **tarika:** organized Order or group(s)
- **tariqat:** being on the path; a palm tree; potential or potentiality

Magic

Sufis believe humans are evolving to transcend time and space, and occasional instances of prophecy or telepathy are the first stirrings of the nascent organs developed in this evolutionary path. That magic has returned seems only natural. The world has advanced to make ready for the next stage, as the people of Earth have advanced to be ready to move to that stage. The Sufis regard LGF and magic as water, in which we must learn to swim. The swimmers will then make their way to the next island, which is a metaphor for the next stage of human evolution.

With the return of mana to the world, thaumaturgy has gained considerable strength. The Sufi does not allow themself to be distracted by it. While they may work secular magic, thaumaturgy, it is done to assist others, not for personal gain, and their primary focus must remain spiritual, theurgical. State, *hal*, and stage, *makam*, remain paramount. Remember that *hal* is a methodology, by which *makam* can be obtained. *Hal* is a gift, *makam* an acquisition.

Nasrudin

Stories of Mulla Nasrudin demonstrate key points of Sufic thought. As with other Sufic writings, the meaning may not be obvious at first glance. If the idea behind a Nasrudin story seems obvious, you have not looked at it from enough angles. There's more there. It is said that seven Nasrudin stories, studied in succession, may be enough to prepare an individual for the process of enlightenment. Which particular seven will vary from one individual to the next.

An argument arose over whether Nasrudin died in 386 or 683, partly based on which direction the numbers ought to be read in. A dervish said to the scholars, "Why not drop a spider in ink and see what marks he makes crawling out? This should show something." 300, 80, and 6 translated into Arabic letters is SHWF. Shawaf means to cause someone to see, to show a thing.

Mechanics

A practising Sufi must spend at least an hour in prayer, meditation, and other mental and spiritual disciplines each day. Failure to do so puts them at a Step penalty equal to the number of days missed, to all Core and Optional Skill Tests, until they have resumed their required practice, with the penalty reduced by 1 for each day of consecutive practice.

The following modifications to the Priest Profession apply to the Sufi character.

Overall:

- Sufis gain +1 Step to Willpower, cumulative, to focus on the task at hand at each Tier. They can redirect this to offset Wound Penalties for spellcasting, summoning, or other mystical work, but can only do this once per Scene.
- Artist (Poetry) replaces Artisan (Embroidery) in the Optional Skill list, and must be learned at character creation.
- Sufis exist in a loose network of students, teachers, masters, and poets. When building a Sufi character, give them one free Connection to a teacher in addition to the standard Connections for a starting character.
- To be a Sufi, one must learn Arabic, because of the encoding and correspondence inherent in the language. This language has to be bought at character creation. Learning Persian is required for serious advancement, to read the works of the great poets in the original language, and not lose the alliteration and encoding woven in by the language itself. This must be bought upon achieving the Journeyman Tier, if it has not already been learned.

Initiate/Novice:

- Seeking ecstasy, or *wajd*, through *dhikr*, patterned movement combined with recitation, opens the Sufi to *Khairat*, illumination. The character may trade one point of Strain for casting spells that gain knowledge by extending the casting time one unit, up to a maximum of their Professional Rank, by performing *dhikr*. For example, a Sufi of PR3 may reduce the Strain of a spell by 3 points by extending its casting time from 1 round to 4 rounds.
- For two points of Strain, a Seeker may repeat a failed Awareness Test, but must accept the result of the second Test.
- The Sufi may create single-use Summoning fetishes. These grant a Step bonus to a Summoning Test for a specific spirit or type of spirit, once, and are used up in the process. It takes 1 day per +1 Step to prepare the fetish, with a maximum Step Bonus equal to the Sufi's Rank in Summoning. Most often, these fetishes are complex magic squares, arrangements of numbers with arcane meaning, or calligraphy that incorporates the spirit's Name and domain, drawn with pen and ink on parchment or fine paper. Cheap materials will not do.

Journeyman:

- The Sufi gains an intuitive sense that lets them see the most probable immediate future, without effort. This may activate on its own, and show up as intuition or a general feeling, and may act like Danger Sense, but going off in situations where physical injury is not the immediate threat. For example, Sufis get a bad feeling when someone is about to try to steal from them, and can see a social trap being laid before the conversation gets to that point.

Some boys wanted to run away with Nasrudin's slippers. They crowded around him and said, "Mulla, nobody can climb this tree!" Nasrudin shook his head, and said, "Of course they can. I shall show you how, then you will be able to do it." He was about to leave his slippers on the ground, but a feeling came over him, and he tucked them into his belt before starting his climb . The boys saw their plan falling apart. "What are you taking your slippers for?" one shouted up to him. "Since this tree has not been climbed, how do I know that there is not a road up there?" the Mulla answered.

- The Sufic practitioner may not have an answer, but is adept at opening the door to further questions that might lead to deeper truth. When faced with a puzzling situation, they may make a Perception Test to know what the next question ought to be, with the Target Number set by the Gamemaster.
- Sufis may converse with each other in signs, gestures, and other shorthand that conveys deep and complex meaning to the illuminated, but looks like arrant nonsense to the unregenerated.

Another mystic stopped Nasrudin in the street, and pointed at the sky. He meant, "There is only one truth, which covers all." Nasrudin was accompanied at the time by a scholar, who was seeking the rationale of Sufism. He said to himself, "This weird apparition is mad. Perhaps Nasrudin will take some precautions against him." Sure enough, the Mulla rummaged in his knapsack and brought out a coil of rope. The scholar thought, "Excellent, we will be able to seize and bind up the madman if he becomes violent." Nasrudin's action had, in fact, meant, "Ordinary humanity tries to reach that 'sky' by methods as unsuitable as this rope." The "madman" laughed and walked away. "Well done," said the scholar, "you saved us from him."

Warden:

- A Warden Sufi gains control over their presence *(shuhud)* and absence *(ghaybat)*, previously used to mean a focus of consciousness rather than a location of physicality, but gaining new meaning with the return of mana. They may be fully present in either the physical or astral world, and not visible from the other, but this requires concentration, and they cannot take direct action while in these states. The Warden makes a Willpower Test and pays Strain of one point less than their Wound Threshold, and may then maintain the state for a number of minutes equal to the Test result. Any direct action, such as use of a combat Skill, ends the state and returns the mystic to normal existence. Travel, such as walking, does not end the state, nor does passing through an unlocked door, but slipping past a Ward or picking a lock does.
- Sufi teachers and masters receive messages, which may just be a strong feeling, a call to go to a place and assist with a force that has become derelict and needs attention. The Sufi is of course where they are needed; they only have to discover the nature of the need.

Master:

- The Master becomes a dual natured being, present in both physical and astral spheres at once. They may make themselves absent from one or the other with no effort, and go on about their business.
- The Master no longer pays any cost for astral or magical perception. This applies to Skills, spells, and innate abilities.

- Sufi Masters can grant visions, or send people on quests that appear to take days or even years, but have an exit condition that brings the person back to the moment in which they left. This should be roleplayed, rather than reduced to dice rolls.

Organization

Sufism has no hierarchical degrees, only a recognition of greater or lesser capacity. There is a threshold of enlightenment to cross to become a student, and another threshold to cross to become a shaykh, or master, but where these thresholds are varies from one school to another, and even from one Sufi to another. Some may study all their lives and never achieve mastery, while others may walk the Path for only a few years before being recognised by the masters as one of their own.

Each teacher maintains a Halka, a circle, admitting only those students they personally approve. The salik spends a time in poverty, working for the teacher, maintaining strict discipline and proper observance, and learning fundamental exercises and scriptures of the Halka's practice. Teachers in turn belong to Orders, and follow the principles laid down by the Order's founder. More advanced practitioners follow the founder directly, sometimes physically, other times (especially if the founder has passed on) in a more spiritual sense.

Sufi Orders are named after their founder. A form of academic lineage applies. The four main Orders today are the Naqshbandiyya, Chishtiyya, Qadriyya, and Suharwardiyya, descended from the Companions of the Bench, the Ashab-Us-Safa, a mystical fraternity among the Prophet's immediate followers. Whether the term Sufi comes from *souf,* or wool, from the humble robes worn, or *Safa,* purity, is a matter of some debate.

As an example, here are the Rules of the Naqshbandi Order.

1. Awareness of Breathing. The mind must be attuned to be secretly aware of everything, even breath. At the same time, the mind must pulsate with thoughts of the Infinite (divine essence and omnipotence).
2. Travel in One's Own Land. It must be remembered frequently that the Sufi is a traveller along the Sufi Path.
3. Watching the Feet. When walking, the Seeker must glue his gaze upon his steps. The secret meaning of this is that he must be aware of where he is going, in a metaphorical sense.
4. Solitude in Company. The mind is to be repeatedly concentrated so that, even in company with others, in the midst of distractions, the Sufi may keep his thoughts relevant to his task.
5. Remembering. The Sufi must never forget that he is a dedicated person.
6. Restraint. This refers to short prayers which are used to punctuate the repetitions of the Dhikr.
7. Awareness. The mind must become aware that there are many distractions. These are to be combated.
8. Recollection. Concentration must be possible through thinking this word, and without words.
9. Pause of Time. During pauses in thinking, the Sufi must recapitulate his actions, and examine them.
10. Pause of Numbers. Awareness that the required number of repetitions of the Dhikr phrase have been completed.
11. Pause of the Heart. During this pause, the mind is trained to visualize the Seeker's heart bearing the Name of Allah.

Resources

One of the constraints of the Sufis is that they cannot amass personal wealth. While they may live comfortably, they must not live luxuriously, as that distracts them and foregoes the root concept of humility vital to Sufic practice. If a Sufi amasses wealth, it must be temporary and not for their own benefit, such as raising funds for a charity. This said, an Order may own land, in order to feed their members, and a building to house them, and facilities in which to teach and to meditate. No profit may be made from these properties, and if any does accrue, it must be delivered to those who need it more, under the rule of charity.

"I hear a burglar downstairs," the Mulla's wife whispered to him one night. "Not a sound," replied Nasrudin. "We have nothing for him to steal. With any luck, he might leave something behind."

Sufis must have a constructive vocation, as work is where the greater treasure sought by the mystic derives. They can gain bonuses at a specific vocational Skill, and excel at a particular trade, in addition to their esoteric pursuits.

Membership

Potential students generally start with some basic idea, a yearning toward the Path of Love, that leads them to a teacher. Sufi teachers in turn discourage disciples, and will not accept students who do not already have a sense of the central mystery. Becoming a Sufi in a quest for personal power cannot succeed. Only those motivated by the desire for wisdom, and willing to search for truth, can understand that study is not sufficient. Assimilation is required.

The Sufis believe enlightenment will only come to those who actively work for it, and who start with an honest and open mind. Preconceptions tend to be barriers. As with many mystic traditions, the Seeker forms a relationship with a teacher or Guide, who instructs the Seeker in what has been learned previously, and shows them methods that tend to result in progress on the path to understanding. The aspiring student must be able to recognize their teacher as a demonstration of their readiness. The Seeker may meet several Masters before finding the one that is the correct Guide for them, and must have some sort of feeling or instinct that draws them to the right Master.

The answer to the existence of a fool is silence. – Rumi

Sufi masters will not normally accept a student who is not already a Seeker, who does not have a basic understanding of what they are looking for and how they might go about finding it. It is not the Guide's job to set the Seeker on the path, but to give them a map, show them how to use a compass, and tell them about the milestones along the way.

A sample is a sample, and yet no one would buy my house if I showed them a brick from it.

Sufism is immersive; one cannot properly study it and gain an understanding of it without practising it. Trying to break it down into precisely measured stages with rigidly defined milestones loses the essence of the practice. The journey is a point in and of itself, and what is learned and experienced in each individual's journey toward enlightenment is critical to and has meaning for that individual alone. Sufism is a necessary adventure in living, its diversity and motion preventing it from being systematized. That having been said, it is possible, within Sufi terminology, to identify six stages that may be passed through or achieved along the Path.

- At Stage 0, the Seeker, or **Salik**, gains initiation into Sufic thought. They begin to grasp the idea of the Path, and the potential of enlightenment. Their mind opens to new possibilities, and they become receptive to the teachings of a Guide.
- At Stage 1, the Salik becomes a **Murid**, or Disciple, of a Pir, or Guide, corresponding to the Initiate Tier of the Profession. The Guide may be a Sheikh/Shaykh (both spellings are correct, as the word is Arabic and does not translate easily to English spelling) or

Master, or may be themselves at an earlier or later stage of the Path. What matters is that the Guide has attained sufficient knowledge to teach others of the Path, and has discarded their own need to be a leader so their ego does not get into the way of their teachings. The Murid follows their Pir without question, learning the recitations and exercises needed to discipline the body, mind, and spirit, and begins to learn how to be in the world but not of it. While the Murid can work a little bit of magic, they are only capable of *istidraaj*, illusion, conjuring tricks, and works of stealth. While a Sufic practitioner may be able to perform magic, they do not depend on it for their reputation or identity, nor do they depend on their reputation itself, as it's secondary to their work.

- At Stage 2, the Murid attains **Tariqat**, or Potentiality. They become an Initiate of the Sufi Tradition, and gain the Novice Tier of their Profession. Working directly with the Sheikh or Murshid of their Order, they begin a series of physical journeys to mirror their spiritual ones. The Tariqat leaves their first school, and travels to others, both to learn from different teachers and thus gain perspective into spiritual matters, and to learn from their physical travels and gain perspective of the world. They begin to practice *Sihr*, the lawful magic permitted by the Sheikh of their Order.
- At Stage 3, the Tariqat gains the title of **Arif**, or Knower, and advances to the Journeyman Tier of their Profession. This puts them on the Safar-ullah, the Journey to Knowledge, where they attain greater spiritual and occult powers, and seek mystical unity with the Founder of their Order, aligning themselves more closely with the principles of the Order and the pattern set by the Founder. Their magical practice extends into the field of *Mu'awanat*, or thaumaturgy, and may include flight and the manipulation of space and time. These workings must be done for the betterment of others, and out of love, not for ego or material gain. To do so breaks the Sufic tradition, and may deprive the mystic of their abilities until they regain their spiritual perspective.
- At Stage 4, the Sufi achieves **Fana**, or Annihilation of the Self, and reaches the Warden Tier. They turn to the Safar-li-Allah, the Journey Away from Neglectfulness, having achieved the Summit and the truth they sought. They begin seeking oneness with the Spirit of the Prophet, whichever one their outer religion points to – Mohammed, Moses, Jesus, all are paths to the One, what matters is the rightfulness of the journey. The mystic becomes capable of *Karamat*, or wonders, walking on water, predicting the future, and similar great workings.
- At Stage 5, having reached the Master Tier, the practitioner has passed beyond their own enlightenment, and has become a **Wali**, or saint. They travel upon the Safar-Billah, returning to the world to guide others. They now work *Mujiza*, or miracles, the magic restricted to prophets and wali not by men but by the laws of the universe, mystical workings simply not possible for anyone who has not passed through the full extent of the Path and returned to bring a measure of enlightenment to the world.

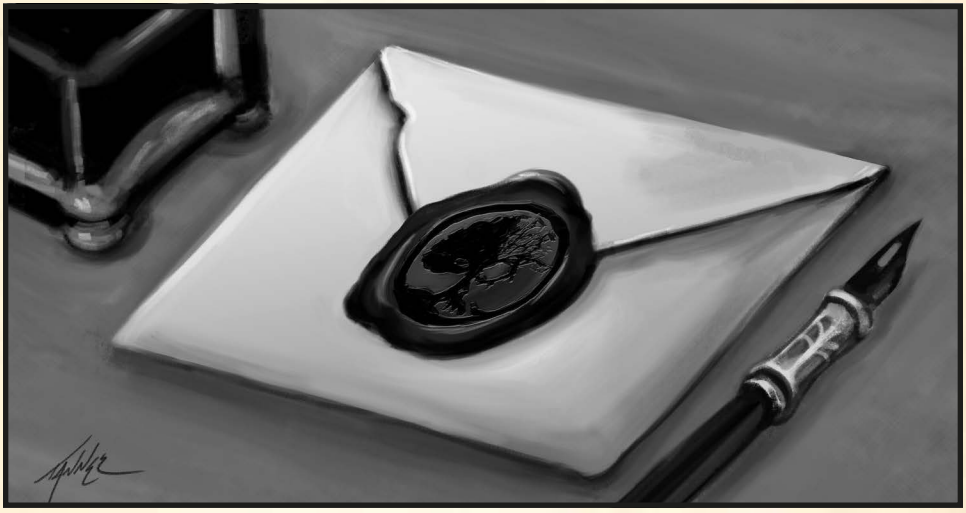
Enemies / Allies

Nasrudin and a scholar are on a ferry. Nasrudin says something grammatically incorrect. The scholar corrects him, and asks, "Have you never studied grammar?" Nasrudin says no. "Half your life has been wasted," the scholar chides. "Have you learned to swim?" Nasrudin asks. "No," says the scholar. "All of your life has been wasted," Nasrudin says, "the ferry is sinking."

The Sufi uses religion as a stepping-stone to ecstatic mystical experience. While they may genuinely subscribe to a religion, they are not bound by it, and will pass through it to greater truths, to then return to the world and serve as a guide. As a result, the more orthodox a religion is, the less likely it is to tolerate the questioning and direct spiritual approach of Sufism. This puts Catholicism at odds with Sufic practice, as well as Anglicanism to a lesser extent. Some forms of

Islam have looked askance at Sufism, and suppressed its practice. Sufis however are not generally persecuted as an organization, but rather as individuals depending upon how much their Path brings them into conflict with the intolerant of other faiths.

The confluence of essences of the Sufis does not equate to the commonalities of the Theosophists. Sufis find the Sufic stream within each culture, the deeper truths within each religion examined in its own context, where the Theosophist synthesizes multiple faiths to find a broader truth that exists across many cultures and religions. This tends to result more in intellectual conflict than any direct acts of intolerance.



Spell List

Spell	Tier	Known As	Style	Modifications
Improve Recovery	Initiate	The Body Heals Itself	The magician gently reminds the patient that their body will take care of itself if they get their mind out of the way.	Range Rank feet, no touch required; Strain 5.
Read Thoughts	Initiate	The Unregenerated Mind is Readily Visible	The magician frowns slightly as they try to focus on something that is itself not focused.	No modifications.
Stun	Initiate	Sudden Realization	The magician reveals a truth to the target that leaves them incapable of action for a brief time.	Reduce Strain by 1; targets must be able to understand the magician.

Spell	Tier	Known As	Style	Modifications
Heal	Novice	A Handful of Barley	The magician speaks briefly of the duty all have to provide what aid they can to each other.	If the magician willingly accepts any payment for the spell worth more than a farthing, they take the injury they just healed.
Improve Attribute	Journeyman	Expand the Mind	The magician reveals a truth that increases the mental capability of the target for a brief time.	PER only; 4 Strain + 1 per success.
Invisible Hand	Novice	Reach Beyond the Body	The magician mimes the actions of the telekinetic "hand" with their own.	No modifications.
Read Object	Novice	All Things Have Memory	The magician reminds themselves and any onlookers that consciousness is not necessarily restricted to people.	No modifications.
Reduce Wound Penalty	Novice	Divert From Pain	The magician gives the target a thought to focus on instead of their pain.	No modifications.
See the Future	Novice	The Most Likely Path Before	The magician meditates on probable actions for the duration of the spell.	No modifications.

The Theosophical Society

At its heart, the Theosophical Society seeks deeper truths in the commonalities between the world's great religions. At their central library in Madras, India, the Society gathers sacred texts of the world and makes them available to anyone who wants to learn. The most important aim of Theosophy is to relieve human suffering, moral as well as physical. Breadth of knowledge as well as depth is required. In their philosophical quest for ultimate divine truth, the Theosophical Society has explored higher axioms of magic, both ancient and modern. They would be formidable opponents if they chose, but prefer to spend their time in research, avoiding conflict in accordance with the Hindu concept of *ahimsa*, or doing no harm. Nevertheless, do not give a Theosophist reason to resort to force. Their magicians and spirit-workers can draw on considerable power, and have no qualms about using it in the defence of justice and truth.

Origins

Following a series of meetings among many of the world's leading lights of interfaith scholarship and occult study, the Theosophical Society was formally chartered in New York City on 17 November, 1873. Its founders believed the best interests of religion and science would be promoted by the revival of Sanskrit, Pali, Zend, and other ancient literature, in which truths of the highest value respecting man and nature had been preserved. A society of an absolutely nonsectarian character, whose work should be amicably prosecuted by the learned of all races, in a spirit of unselfish devotion to the research of truth, and with the purpose of disseminating it impartially, seemed likely to do much to check materialism and strengthen the waning religious spirit of the age. From the charter, the objects of the Society were the following:

First. –To form the nucleus of a Universal Brotherhood of Humanity, without distinction of race, creed, sex, caste, or colour.

Second. –To promote the study of Aryan and other Eastern literatures, religions and sciences.

Third. –A third object–pursued by a portion only of the members of the Society–is to investigate unexplained laws of nature and the psychical powers of man.

Founding Members of the Theosophical Society, New York, 1873

Helena Petrovna Blavatsky	George Henry Felt	R. B. Westbrook
Col. Henry Steel Olcott	Krit Anand Singh	Charles E. Simmons, M.D.
William Quan Judge, LLD	John Storer Cobb, LLD	Herbert D. Monachesi
Pradeep Kumar Jain	Henry J. Newton	Charles Carleton Massey
Emma Hardinge Britten	Charles Sotheran	W.L. Alden
S. Pancoast, M.D.	Rev. J. W. Wiggin	David E. de Lara

Within three years, branches had opened in Chicago, San Francisco, Buenos Aires, London, Paris, Edinburgh, St. Petersburg, Jerusalem, Cairo, Singapore, and Bombay. In 1879, the headquarters and central library moved to Adyar, in Madras state, India, where it remains to this day.

Numerous members of the Theosophical Society studied the Rabbit Hole between its creation and opening. A few, notably Annie Besant, were present at the Grosvenor Experiment, Besant going on to say in later interviews that the Experiment awakened her interest in the occult and led directly to her meeting with Helena Blavatsky and the founding of the London chapter of the Theosophical Society. How the timeline of events actually works has remained unclear, with Besant and Blavatsky both refusing to address the confusion as to exactly when they first met.

Goals and Methods

"Theosophy, in its abstract meaning, is Divine Wisdom, or the aggregate of the knowledge and wisdom that underlie the Universe."
*- Helena P. Blavatsky, **The Key to Theosophy***

The Theosophical Society seeks to produce the Tree of Knowledge of Good and Evil, which is grafted onto the Tree of Life Eternal. Every deeper meaning found in the conjunctions between religions reveals a great truth. Theosophy is sunlight, and the religions of the world the coloured rays emerging from the prism of the human mind. Theosophists are not competitive. Everyone else is welcome to their beliefs. Theosophy holds that its truth is higher and deeper, but does not call the beliefs of other traditions false, just incomplete, badly translated, or inadequately understood.

The duty of the Theosophist is to see to the happiness of others, and "the fulfillment of right for the sake of right", comparable to the Khemetic concept of Ma'at. The Theosophist must aid those less fortunate, to assist them in body so they may have room to be enlightened in mind, and thus win free of the karma that has put them in such a lowly station and ensure them a better place in their next life. This does not mean giving money to charity, but active work to educate and elevate.

Theosophy, with its ideas of karma and reincarnation being determined by previous life's deeds, supports the class structure found in Britain, Europe, and India. If you have a terrible life, you did something in a previous life to deserve it. There's a bit of Calvin there, a presumption of guilt. On the other hand, one who is born to luxury and riches, and then abuses it by failure to be generous and kind, will also be judged, and in for a bad time of it next life. In many ways, this is closer to the Christian beliefs of the period than the Theosophists would like to admit.
– Carlton Thornhill, London Academy of Practical Spiritualism

Teachings divide into exoteric (outward) and esoteric (inward) forms. The lesser mysteries are revealed to the novices and to some extent the public. The greater mysteries are reserved for those who are ready to understand them. More about this division, and the actual practices of each part of the Society, may be found in the **Organization** section.

Beliefs

While the Theosophists do not have a dogma, they do have a cosmology. They believe in a single Great Cycle, with a Universal Divine Principle from which the world condensed, and to which all shall return at the end of the great cycle of Being. There is also a Lesser Cycle, wherein the spiritual nature of the world refreshes over the course of eons, beyond the life of any one race. Recent research has indicated the possibility of an even shorter cycle, that humanity may have passed through multiple times, but this has not been given any serious consideration. Effectively, in terms of a faith, they are panentheists, believers in an omnipresent Divine Principle that is inherent in all of Creation. The Universe not only exists in the Mind of God, but God permeates the Universe; they are one and the same.

Read the superb Kabalistic poem by Solomon Ben Jehudah Gabirol, in the Kether-Malchut, and you will understand :–" Thou art one, the root of all numbers, but not as an element of numeration; for unity admits not of multiplication, change, or form. Thou art one, and in the secret of Thy unity the wisest of men are lost, because they know it not. Thou art one, and Thy unity is never diminished, never extended, and cannot be

changed. Thou art one, and no thought of mine can fix for Thee a limit, or define Thee. Thou Art, but not as one existent, for the understanding and vision of mortals cannot attain to Thy existence, nor determine for Thee the where, the how and the why," etc., etc. In short, our Deity is the eternal, incessantly evolving, not creating, builder of the universe; that universe itself unfolding out of its own essence, not being made. It is a sphere, without circumference, in its symbolism, which has but one ever-acting attribute embracing all other existing or thinkable attributes—ITSELF. It is the one law, giving the impulse to manifested, eternal, and immutable laws, within that never-manifesting, because absolute LAW, which in its manifesting periods is The ever-Becoming.

*– Helena P. Blavatsky, **The Key to Theosophy***

The number seven has mystical significance and recurs frequently throughout Theosophical belief. Earth is believed to be one of seven worlds, with the other six on other planes of being. The existence of the Gruv is seen as validation. These worlds correspond with the seven states of consciousness and the seven fundamental forces of nature. The worlds and forces also align with the seven aspects of the nature of humanity, not directly but in mystical significance and symbolically. (The Theosophists use "humanity" to refer to all the races collectively, holding that the outer forms of Boojums, which are ephemeral, have significance to their inner forms, which are eternal, only in terms of the experience of a single life.) Humanity has two natures: an upper or spiritual nature with three aspects, a triad referred to collectively as the Man Who Thinks, and a lower or physical nature with four aspects, a quaternary known as the Man Who Records the Thoughts. The lower quaternary is held to be an emanation of the upper triad, the Kama-Manas being effectively a projection of the Nous. Neither is equipped to perceive the other's realm. Physical senses perceive reality. The Nous recognizes the noumena.

Unquestioning faith, Theosophists believe, is a mental disease. Real faith is belief based on knowledge. They abide by principles similar to science, allowing only that which has been corroborated and verified through multiple separate experiences. At the same time, though, they reject science, partly because science can and will entertain multiple, possibly conflicting, hypotheses in regard to any particular phenomenon, whereas Theosophy only admits of one hypothesis at a time.

Theosophy is an integrative method, a means for examining all the revelations of all the religions of Earth and finding the common truths that underlie them. Falling into any sectarian structure limits the available truth and separates the sectarian from the greater universe and the greater truths. Theosophy rejects the idea of an extra-cosmic and anthropomorphic God, and has extensive logical arguments against the existence of the God of the Book. This has led to considerable conflict with the Christian, Judaic, and Mohammedan traditions.

There is a terrific arrogance in Theosophy, that says that Christians, Buddhists, and other traditions going back hundreds or thousands of years, have failed to understand their own faiths, that the translators and interpreters and metaphysicians have confused terms and failed to understand critical concepts.

– Carlton Thornhill, London Academy of Practical Spiritualism

Practices

Theosophists do not pray to a deity. It's pointless. Why would the Infinite listen to petitions of the finite, most of which are selfish and egotistical, and no few of which are malicious? Why would the Divine, for example, provide assistance to two armies, both of the same faith, in

slaughtering each other? Why should Man be given his daily bread instead of working for it? Why would an Omniscient and Omnipotent God need guidance from the petitions of mortals? Theosophists act. Prayer for Theosophist is not a petition. It is an occult process by which thoughts and desires are transmuted into spiritual will. Essentially, prayer is focusing desire into will to change reality. Ergo, magic.

Organization

At its simplest, the Theosophical Society divides into Exoteric and Esoteric Sections. Each pursues part of the overall goals of the Society, with some overlap in duties and considerable overlap in requirements.

Exoteric Section

The Exoteric Section focuses on the outward duties of the Society, being the gathering and dissemination of knowledge, and assisting humanity (including themselves) to reach sufficient enlightenment to begin study for the Esoteric Section. This divides into scholarship, teaching, and public works.

Scholarship for the Exoteric membership involves collection of written works of the world's religions, creating at the Adyar library as much correct information as possible about the beliefs of Mankind, and translating, republishing, and otherwise making available such information. In the reading rooms at the headquarters campus and most chapters and branches, any member of the public may peruse the available portion of the collection. The Exoteric Section also operates a publishing, printing, and shipping firm located in Adyar, engaged in the translation of religious works into other languages, reprinting such works as they may obtain the rights to, and printing and distributing the magazines and books of the Theosophical Society itself.

Teaching is the act of conveying truth to another, which may be as simple as educating children in the basic skills of literacy and doing their sums, or as complex as lecturing at Cambridge on abstruse points of theology. Exoteric Section members may thus be found at all levels of academia. They make no secret of their inclusion of Theosophical philosophy in their teachings. Far from it; Exoteric teachers do their best to bring the foundations of enlightenment to humanity, which includes the basic ideas of the Society.

To help promote the brotherhood of humanity, Theosophy members assist in the international exchange of arts and products, but may not accrue any benefit to themselves or to the Society other than that required to pay for chapter or branch expenses. Theosophists thus serve as brokers, translators, and any other function that encourages interdependency, as a public service.

The hungry and deprived cannot learn, as their thoughts are focused on their next meal, where they will sleep that night, and their personal safety if they are unfortunate enough to live in an area torn by conflict. Bringing in food and water, building shelter, and assisting people in setting up workshops and farms where they can produce their own necessities contributes toward the enlightenment of humanity. Therefore, Theosophists may be found in the Crimea, in the Zone Rouge, and wherever war, plague, or famine have struck and left the population destitute and desperate. They are not the International Red Cross, and do not pretend to operate on either the principles or the scale of that august organisation. Rather, Theosophists lend their hands where they can make a difference on a smaller scale, sometimes working alone, sometimes in groups, seeing to their own enlightenment by assisting others.

Exoteric teachings are by their very nature, and that of the audience, inaccurate, broad interpretations often overshooting the mark. Reliance on the exoteric leads to error, both by lack of understanding and failure to teach accurately. Deeper exploration in the realm of the esoteric is

required for true understanding. Difficult metaphysical doctrines have been withheld from the masses by all faiths, all religions, because of the danger in perplexing those who are not ready, the confusion leading to partial and incorrect understanding, perhaps even to the audience believing their direct fallacies to be confirmed. One does not teach a child how to drive a steam-car, nor give an idiot a cannon. (Unless one is in the military and the idiot an officer, but that is a discussion for another time.) The problem that then arises is the proliferation of error by the exoteric, by the masses who poorly understand and do not have the entirety of truth, which in England alone has led to three hundred sects of Christian faith that bitterly contest with one other.

Esoteric Section

The Esoteric Section focuses on the mystical, the occult, and the arcane, working to gain understanding of deeper metaphysical truths. Here may be found the magical practitioners and mediums. Far from being showy table-tappers like the Spiritualists, the Esoteric Section more closely resembles a scientific organisation, methodically working its way through performing experiments, collating data, and developing new hypotheses for testing.

Entering the Esoteric Section of Theosophy requires a rebirthing ritual, after which the member is considered, for magical purposes, a new person. *"He who enters is as one newly born."* Continuing to carry on with serious vices or moral defects is grounds for expulsion. Achieving the inner circle requires a commitment to altruism, abandonment of ego, vanity, and pride, a life of abstinence, self denial, and strict morality. In return, Esoteric members obtain arcane knowledge and the support of their fellows.

Knowing the philosophic basis of any occult practice is required for responsible use. Since magic is a matter of symbolism and intent, the value of the symbol not only to the magician but to the outer world carries weight. Theosophy rejects the ceremonial magic of Kabalists and anything smelling of necromancy as dangerous. Theurgy requires holiness and purity to avoid descending into black magic. Theosophists spend considerable effort on philology, divining the origins of terms, analyzing words for their roots and deeper meanings.

No Esoteric Fellow is allowed to use knowledge gleaned from any other member for selfish gain, on pain of expulsion. Theosophy holds that acquisition of magical power without altruism and abandonment of ego creates a person who will slide into black magic simply by having power and being selfish. This means a Theosophist Mage cannot charge for the use of anything they have learned from their Lodge's practice, although compensation for materials used for someone else's benefit has been ruled acceptable (although perhaps morally a bit shaky).

An expelled Theosophist is not released from their oath of secrecy. They can still practice, but cannot reveal to outsiders anything they learned while a member. The oath is binding until death, which has led to some extreme risks being taken.

> ***Mechanics:*** *One effect of breaking the oath is loss of Karma. Not only is the current pool emptied, the Step is permanently reduced by half, rounded down, and the Cost permanently doubles. Any Karma-related bonuses gained while a member are lost.*

Chapters, Lodges, and Branches

The Society divides itself into three types of groups, all reporting to the central campus in Adyar. Each group frames its own bylaws and manages its own local business without interference from headquarters, provided only that the fundamental rules of the Society are not violated.

Chapters

Formally organized and chartered Exoteric groups, Chapters pursue the outward interests of Theosophy. They hold classes, operate public reading rooms, gather funds and use them in works of charity, and speak with potential new members. Chapters handle legal necessities, such as property ownership, hiring and payment of labourers for building and maintenance, and payment of taxes or filing of proper tax exemption forms according to the nation of residence.

Lodges

Lodges pursue the esoteric, turning inwards, and normally existing in parallel with a hosting Chapter. This allows Esoteric Fellows to avoid having to deal with money or other worldly concerns which might distract from their studies or the purity of their path. Lodge members may reside at the Chapter if it has the appropriate facilities.

Branches

A Lodge consisting of a single faith or belief system is called a Branch, or a Branch in Partibue. These groups allow exploration and discussion of that faith in detail, where Chapters must remain agnostic and not focus on any one faith in specific. Some Theosophists consider Branches only a stepping-stone to proper membership, while others see them as means of exploring a particular viewpoint in depth. Whether or not the Esoteric Section should allow Fellows who focus on a specific faith instead of the broader nature of reality is still being argued. In the meantime, a Branch can support a Lodge dedicated to its faith in the way a Chapter can support a Lodge dedicated to the larger cosmology.

At-large Fellows

Those Fellows who reside in areas where there are not enough members to form a Chapter or Branch are granted At-large membership. Attached members are part of a specific chapter or branch, which may be nearby but not sufficiently so. For example, a Fellow in Vitry-sur-Seine, a considerable drive outside the arrondisements of Paris, may be attached to a Chapter in the 13th Arrondissement, but may not see their Chapter Fellows more than once a year. Unattached members have their diploma from the central authority in Adyar but do not belong to a Chapter.

Resources

The Society itself is perpetually nearly broke, but always seems to come up with a donation or other funding in the nick of time. Much of the funding that keeps the Madras campus going comes from its publishing house, with the printing facilities located on Vasanta Press Road just south of the campus proper. Besides the sacred texts of several major religions and a host of volumes written by Theosophists and people of similar interests, the Society also publishes several magazines.

- *The Theosophist*, a monthly of news and essays, printed in Madras, actually makes a profit.
- *Lucifer*, printed in Chester, which British booksellers and WH Smith's railway stands won't carry, has never broken even, and is in danger of ceasing publication. Changing the name has been proposed multiple times, but names have weight and the publishing committee of Lucifer insists the title is appropriate.
- *The Lotus* is published in France. Privately funded, it circulates reasonably well in France, Belgium, and Switzerland.
- *The New York Path* and the *Revue Theosophique of Paris* are neither one breaking even, and are being kept in print by private donations.

The headquarters, offices, and managing staff at Adyar, a suburb of Madras, occupy twenty-seven acres from Adyar Bridge Road in the west to Broken Bridge coastal road in the east, atop the seawall, and from the Adyar River in the north to Vesanta Press Road and the recently-named Besant Avenue Road in the south. Besides the Oriental Esoteric Library, the Adyar Exoteric Library, and a spacious hall wherein the General Council meets annually in Convention on the 27th of December, the campus includes the Buddha Temple, the Bharatha Samaja Temple, the Church of St. Michael and All Angels, the Zoroastrian Temple, and the Adyar banyan tree. At the northeast corner, the Garden of Remembrance creates a space for memorials out where the river flows into the ocean.

Well connected socially, Theosophists can often call in favours, or convince a friend or ally to render aid in promise of future recompense. The nature of such favours depends on the Social Level of the connection, as always, but the readiness of connections to render such generally runs higher than the normal. Given the high social places of many of the founding membership and current leaders of the Society, the potential of the Theosophists in the favour economy should not be underestimated.

Membership

Most of the requirements of the Esoteric and Exoteric Sections have already been covered in the **Organization** section. No person's religious opinions are asked upon his joining, nor is interference with them permitted, but everyone is required, before admission, to promise to show towards his fellow-members the same tolerance in this respect as he claims for himself.

The Esoteric Section does not require vegetarianism or asceticism, but the nature of the work tends to lead to ascetic practices. While they discourage alcohol and drug use, they do not forbid it, but will expel the habitual drunkard or drug-fiend.

Theosophists can act only on the physical and psychic nature, and will not interfere with free will, which is regarded as black magic. Such practices risk snapping the thread that links the spirit to the soul, and the soul on death then dissolves back into the aether, the personality annihilated.

> *In a noteworthy case not discussed outside the Esoteric Section, the soul of a recently departed black magician, desperate to exist, wove an astral thread to the reincarnating Ego of another soul, becoming a spiritual parasite. The effort to chase it down, separating it from the newborn infant to which it clung without harming the child, and sending it off to dissipate was quite the adventure, let me tell you. How do I know about this? Large weather we're having, isn't it?*
>
> – Carlton Thornhill, London Academy of Practical Spiritualism

Strictures

The following are quoted from the *Chapter Guide to Theosophy*, as printed by the Theosophical Society Press, Adyar, Madras, India.

- No Theosophist should be silent when they hear evil reports or slanders spread about the Society, or innocent persons, whether they be colleagues or outsiders.
- No Theosophist ought to be contented with an idle or frivolous life, doing no real good to themselves and still less to others. They should work for the benefit of the few who need their help if they are unable to toil for Humanity, and thus work for the advancement of the Theosophical cause.
- No working member should set too great value on their personal progress or proficiency in Theosophic studies, but must be prepared rather to do as much altruistic work as lies in their power. They should not leave the whole of the heavy burden and responsibility of

the Theosophical movement on the shoulders of the few devoted workers. Each member ought to feel it their duty to take what share they can in the common work, and help it by every means in their power.

- No Theosophist should place their personal vanity, or feelings, above those of their Society as a body. They who sacrifice the latter, or other people's reputations on the altar of their personal vanity, worldly benefit, or pride, ought not to be allowed to remain a member. One cancerous limb diseases the whole body.
- No Fellow has a right to remain idle, on the excuse that they know too little to teach. For they may always be sure that they will find others who know still less. And also it is not until one begins to try to teach others, that they discover their own ignorance and try to remove it.
- No Fellow, whether exoteric or esoteric, can force their opinions on another. No officer may preach sectarian views to members assembled, unless specifically invited to do so, or in assembly with only those of the same beliefs, in which case there's an implicit invitation. Two warnings are given before expulsion on the third offence.
- Justice consists in doing no injury to any living being; but justice commands us also never to allow injury to be done to the many, or even to one innocent person, by allowing the guilty one to go unchecked.

Enemies / Allies

Theosophy falls into the failing of denigrating those who disagree with it, especially current psychology and physical science, which it dismisses as materialists, and reviles for lack of consideration of spiritual phenomena. This has driven a deep and painful rift between the Society and the Galvanic Order, which takes scientific investigation of magic and spiritual phenomena very seriously indeed. Those closest to agreement are far too often the bitterest of foes.

The Spiritualists hate the Theosophists with a bitter passion, over both a doctrinal point and a procedural and legal one. Theosophists believe that summoning a spirit calls a reincarnating Ego from Devachan to commune with Earth. This interferes with the Ego's time in paradise, its reward and rest from its previous life on Earth, and creates a heavy karmic burden for the summoner. Calling forth a spirit currently reincarnated would pull the soul out of a living person in order to speak with its previous identity, a dangerous and dark action indeed. Keeping track of the reincarnation lineage of an Ego thus becomes as vital to the Theosophist as stud books are to a horse-breeder. Spiritualists buy into none of this, believing the spirits they commune with are done, for the most part, with Earth, and have only stayed or returned to deliver a message to the living. With no way to prove either definitively, the two organisations have taken to interfering with each other in court and in the press. Theosophists have been known to disrupt seances in order to free the spirits that have been summoned. In retaliation, Spiritualists have disputed property lines and leases, libelled Theosophy and its Fellows in newspapers, magazines, and book prefaces, and on one noteworthy occasion led the Arcane Crimes Branch of Scotland Yard to believe there was active necromancy being practised in a Lodge facility in Oxford, leading to a raid, some minor injuries, considerable property damage, and a court case waiting for an appointment before the Queen's Bench.

Theosophy is also in direct dogmatic conflict with the Christian Church. Their duty to those whose karma has placed them in low station and hardship runs counter to Victorian culture's belief that the poor deserve to suffer. Theosophy rejects the Christian doctrine of resurrection in the flesh, which they blame on speculations of later Christian theologians borrowing from Greek and Egyptian exoteric systems via the Gnostics.

What right have we to think so while one-half of humanity is in a position to effect an immediate relief of the privations which are suffered by their fellows ? When every individual has contributed to the general good what he can of money, of labour, and of ennobling thought, then, and only then, will the balance of National Karma be struck, and until then we have no right nor any reasons for saying that there is more life on the earth than Nature can support. It is reserved for the heroic souls, the Saviours of our Race and Nation, to find out the cause of this unequal pressure of retributive Karma, and by a supreme effort to re-adjust the balance of power, and save the people from a moral ingulfment a thousand times more disastrous and more permanently evil than the like physical catastrophe, in which you seem to see the only possible outlet for this accumulated misery.

*– Helena P. Blavatsky, **The Key to Theosophy***

The Society for Psychical Research remains highly sceptical of the Theosophists, even after the incident of the Mahatma Letters turned out with vindication of Madame Blavatsky's claims to be in communication with spiritual entities. The fact that Madame Blavatsky, whose writings had deeply annoyed the members of the SPR, proved to be a genuine psychic with demonstrable and verifiable abilities, was taken as something of a personal insult by certain of the SPR senior membership. Again, this generally does not tend to be a violent conflict, although some would say the investigatory and legal fees that have mounted up have done considerable violence to the bank accounts of all those involved.

Other foes include clergy of all denominations, usually restricted to arguments in the press and on the street, and missionaries, especially in India. The most serious enemies, though, are former members. One should never trade an old friend for a new enemy, but sometimes this comes about through no fault of one's own. Why do those leaving, or exiled from, the Theosophical Society turn so bitter? In the words of one of the Society's leaders:

Wounded vanity in some form or other, almost in every case. Generally, because their dicta and advice are not taken as final and authoritative; or else, because they are of those who would rather reign in Hell than serve in Heaven. Because, in short, they cannot bear to stand second to anybody in anything. So, for instance, one member–a true " Sir Oracle "–criticized, and almost defamed every member in the T. S. to outsiders as much as to Theosophists, under the pretext that they were all untheosophical, blaming them precisely for what he was himself doing all the time. Finally, he left the Society, giving as his reason a profound conviction that we were all (the Founders especially)– Frauds ! Another one, after intriguing in every possible way to be placed at the head of a large Section of the Society, finding that the members would not have him, turned against the Founders of the T. S., and became their bitterest enemy, denouncing one of them whenever he could, simply because the latter could not, and would wot, force him upon the Members. This was simply a case of an outrageous wounded vanity. Still another wanted to, and virtually did, practise black-magic – i.e., undue personal psychological influence on certain Fellows, while pretending devotion and every Theosophical virtue. When this was put a stop to, the Member broke with Theosophy, and now slanders and lies against the same hapless leaders in the most virulent manner, endeavouring to break up the society by blackening the reputation of those whom that worthy " Fellow " was unable to deceive.

*– Helena P. Blavatsky, **The Key to Theosophy***

The Adepts of the Black Brotherhood serve as an example of such, an order of mages who left (or were thrown out of) the Theosophical Society to follow (or because they were already following) a darker path. They do not discuss their work outside their own circle, and thus avoid trespassing on the Theosophists' oath. This does not stop them from being in direct conflict, sometimes violent, with the Society, nor does it stop the Theosophists from trying to hunt them down and put an end to their arcane wrongdoing. Other dark Lodges, such as the Brothers of the Shadow and the Dug-pas, have also been in conflict with the Theosophists.

In a more specific case, W. L. Alden, one of the founding members, left very shortly after, telling his friends he had been "dragged into it". An editorial columnist with the New York Times, Alden has turned his caustic wit on the Society on numerous occasions. His ridicule has branded the Theosophists with the nick-name of "Dead-heads", much to their annoyance. However, at no point has he broken any oath he had taken, and his exposure to the Society's arcane lore had been minimal at the time of his departure, if any at all. Thus, the damage he can do is restricted to the social, as if that were not enough.

Special Abilities

Mediums, priests, and mages of the Society gain advantages and unique powers through the long and intensive training they undergo. Some of these abilities include the following.

- Theosophists add their Spellcasting, Summoning, or highest Mystic Power Rank to their Mystic Defense and Social Defense when defending against one another. This includes former or exiled members who are still under oath. Oathbreakers lose the Defense bonuses themselves, but still count for the purposes of current members, who get the bonus against them.
- Mediums gain Astral Projection as a Spell Slot option at Novice. This gives them a significant advantage, as if they take it as a Core Skill they may spend Karma on it. Mages and Priests gain it as a Tier Ability at Journeyman, and use their Professional Rank minus 4 instead of Spellcasting Rank, thus starting with a Rank of 1 and not being able to advance past 11.
- The deeper initiates can project their double consciously and at will. Mediums gain Astral Double as a Spell Slot option at Warden. Mages and Priests may learn the spell at Master as normal.
- Theosophists can access previous records in their own Ego. These are not the Akashic Records, the collective memories of humanity, but recollections of the specific Ego's past lives and experiences, memories of previous incarnations. Not all such memories are useful. They may be from non human existences, or may simply not be relevant due to context. Mediums, Mages, and Priests can all gain the State of Jhana Ability at Warden, and with it can achieve an exalted spiritual state, allowing tracing the line of their lives. Connecting to previous lives and bringing their memories into current memory is difficult and hazardous, as the conscious mind interferes with actions of the Spiritual Ego. The character makes a Willpower + Professional Rank Test against a Target Number of 50, and takes a Wound' worth of Strain. If the Test is successful, the State of Jhana is achieved. For each success, one relevant memory may be retrieved. What specifically is retrieved and how useful it is should be roleplayed. Gaining the ability requires a year of study, during which the Theosophist must spend at least half their time in meditation.
- The complex arcane structures Theosophists build have considerable staying power, but require time to complete. The Theosophist may add their Professional Rank to the

duration of their spells and magical Skills at no extra cost. Study time to learn new spells or alchemical formulae, and research time to create new spells and gain magical knowledge, is doubled.

- Theosophists understand the power of Names. If the Theosophist knows the full name of a thing, such as having heard a person say their entire legal name, or knowing the full taxonomy of a plant or animal, and can invoke the name, they may spend the target's Mystic Defense in Strain to lower the Target Number of any spell or magical Skill being used on that target by the Rank of the Skill being used, to a minimum of 2.

Spell List

Do not expect Theosophical magic to be simple. Each spell embodies a relationship of principles, and carries within its title an explanation of the mechanism of action. Theosophy assumes a scholarly commitment on the part of the mystic, a willingness to expend considerable time and effort in order to understand the deeper mysteries of reality. Those in search of easy answers, and spells with short titles, should seek elsewhere.

Spell	Tier	Known As	Style	Modifications
Decode	Initiate	The Secret Alphabet (Read)	The magician focuses their mind on the mathematical precepts of the Angelic Script, and works a calculation involving the Golden Constant and the numeric significance of the encrypted text.	Requires two rounds to cast. Strain -1.
Encode	Initiate	The Secret Alphabet (Write)	The magician either writes the message themselves with a quill pen, or brushes a quill across the page, rendering it into the Angelic Script.	The spell cannot be cast without the use of a quill. Strain -1.
Shield	Initiate	Agnoaiac Refusal	The magician dismisses incoming attacks as nonsense, brushing them aside as irrelevant.	Add Professional Rank to the Effect Step. Strain +1.
Stun	Initiate	Manasic Shock	The magician targets the lower nature, knocking it out of alignment with the nervous system.	Add Professional Rank to the Effect Step. Strain +1.
Bolt	Novice	Striking the Tether	The magician targets the link between Manas and Phren, the higher and lower spiritual existences of the soul, causing physical shock to the nervous system.	Resisted by Mystic Armor. Target takes -1 Step to all Tests for each extra success on the Spellcasting Test, for Rank rounds. Can only be used against sentient beings. Strain increases by Rank.
Explosion	Novice	The First Unlocking	The magician unlocks the energetic potential in an object within range, causing it to explode.	If the magician has a physical key to use as a wand, Strain -1.
Heal	Novice	Manasic Repair	The magician reflects the pattern of the physical back into the actual physical, restoring the body to its proper state.	If the magician knows the Name of the person or creature being healed, reduce Strain by -1 and add +1 to the Effect Step.
Improve Defense Rating	Novice	Manasic Strengthening	The magician focuses on their own physical pattern, and reinforces it.	Restricted to the magician's own Physical Defense. Physical Defense is increased by +2 per success. Strain -1.

Spell	Tier	Known As	Style	Modifications
Thought Link	Novice	Thought Transference	The Theosophist composes their mind, taking a moment to reach out to their Fellow.	Restricted to connecting with other Theosophists. Strain -1. A version without reduced Strain, able to connect with any other person, is learned at the Journeyman Tier.
Explosion	Journeyman	The Second Unlocking	The magician unlocks a greater potential within an object within range, causing it to explode.	Add Professional Rank to the Effect Step. Strain +2. If the magician has a physical key to use as a wand, reduce Strain by 1.

The Unificationists

An intellect which at a certain moment would know all forces that set nature in motion, and all positions of all items of which nature is composed, if this intellect were also vast enough to submit these data to analysis, it would embrace in a single formula the movements of the greatest bodies of the universe and those of the tiniest atom; for such an intellect nothing would be uncertain and the future just like the past would be present before its eyes.

*– Pierre-Simon Laplace, **Essai philosophique sur les probabilités**, Introduction, 1814*

The Sisterhood of the Third Unification seeks to bring Maxwell's work to its ultimate conclusion and find the grand unifying theory that explains the underlying phenomenon behind light, electricity, heat, gravity, and magnetism. Following the opening of the Rabbit Hole, magic has been added to the list of universal forces that must be explained by the Third Unifying Theory. While they build astonishing devices, these are secondary to the Order's purpose. The force or forces being applied, converted, controlled, or otherwise handled remain the primary concern.

Origins

In 1875, two years after James Clerk Maxwell published his *Treatise on Electricity and Magnetism*, correspondence began among a small group of women mathematicians. They sought a higher truth in mathematics, and began delving into physics, the new name for what had so long been called "natural philosophy", as a means of testing their theorems. They believed nothing is gained or lost, only transmuted from one form to another, and that a unification beyond that of Newton and Maxwell is possible. As their work expanded, so did their numbers, but quietly and in secret, partly to avoid exposing their work to the disdain of men. Far too many women have had their work disparaged, stolen, or dismissed by men, years of effort tossed into the bin or published under the name of someone else solely on the basis of gender. When the Sisters do publish, it is under their own names, and only after they have mercilessly peer reviewed their work. It is not enough for their efforts to excel. To survive in an academic world still dominated by men, their

papers must be unassailable. Small wonder they become obsessive, paranoid, and occasionally vengeful. Small wonder they have built such frightening devices. Only a display of horrific violence will convince a man that one is serious. The Sisterhood tries to self police, but every so often there are incidents, and really, who could blame her for using induced magnetic resonance to cause the man who soiled her reputation to suffer a cranial implosion? It's not like he was keeping anything worthwhile in his head, after all.

The Sisterhood traces its formal founding to a discussion over tea at the Parisian salon of Princess Mathilde. Dr. Elizaveta Litvinova complained she could not publish her latest work because it had not been peer reviewed, and if she sent it to peer review in Bern, she would see it published under a man's name the very next day. Dr. Sophie Kowalevski agreed that, if Dr. Litvinova were Prussian, she would not have this issue, but anywhere outside the Socialist Empire, a woman had nearly insurmountable obstacles in her way. Her Highness demurred, saying women had sufficient resources of their own in any nation to overcome these minor hurdles, and offered to put Dr. Litvinova in touch with the women of the aforementioned correspondence, Princess Mathilde having been taking an interest in higher mathematics of late. This brought together the three factions that would form the Sisterhood of the Third Unification: the truth seekers, the professionals with a desperate need for peer review, and a salon with access to considerable resources in terms of connections and favours owed. The Steering Committee of the Sisterhood still meets at Princess Mathilde's salon.

Goals and Methods

Following the dictum of von Helmholtz, the Unificationists at first disdained practical applications of their work. They sought to gain greater understanding of light, heat, electricity, and other forces. In so doing, they built extraordinary devices for their laboratories. These began to draw attention, as such things do, from the military and commercial interests. Between the financial pressures of performing leading-edge research into forms of energy, and the advent of magic in 1877 further widening the field of study, some of the Unificationists have developed high-energy equipment for industry, or specialized devices for research facilities. Weaponry has also been created, although the Sisterhood as a policy prefers to retain destructive devices for their own use, as demonstrations of their abilities. Most Sisters, shunning the spotlight such contracts bring, find their funding in research grants, private donations, and the occasional bit of mercenary work. Their primary goal, however, always remains returning to their laboratories, pursuing their studies, and

contributing to the Third Unification. In this way, they resemble the Newtonians, seeking ever for the primal force, spending considerable time and effort in building the equipment they need for their experiments, and selling some of their effort on the side to fund their research.

Recently, the Unificationists have begun considering the idea that matter itself might be energy in solid form, combustion being a process that turns matter into energy. Nothing is gained or lost – it is only transmuted. Just working through the foundations of this idea may take them considerable time. A tiny sub-group of a School admittedly small to begin with believes when the root equation of this equality is found, it will unlock forces that have not even been dreamt of yet.

Each Sister is left mostly to her own judgement as far as the lines of research she pursues and the methods by which she funds her work. Restrictions are laid upon the Sisterhood for the School's preservation. No research can be published without subjecting it to harsh peer review, to forestall any attempt by rivals, especially men, to discredit or disprove the work. No device may be built that would tip the balance of power in the world. There have been too many wars already, driven by male pride. Women will not contribute to further slaughter. This rule may find itself under extreme pressure if the matter-energy equation is derived. Testing the theorem could require building a weapon more powerful than any yet conceived in the history of the world.

Organization

At the heart of the Sisterhood is the Steering Committee, a group of the five most senior members as determined by longevity, academic position, and publication history. They meet formally every three months at the salon of Princess Mathilde, to take up whatever official business is required, such as approving the printing budget. Matters of policy are routinely discussed outside of the committee meeting, with meeting time being reserved for achieving consensus on specific issues and finalizing policy decisions. Princess Mathilde attends these meetings as a non-voting member, able to contribute her opinion but not having a part in the consensus process.

The Review Committee consists of the three Sisters with the most publication credits, assessed annually. They control the peer review process, accepting papers from the Sisterhood, checking them for structure and basic subject matter, and then passing them on to other Sisters for in-depth review. Every paper must be validated by at least five Sisters, with no reservations expressed to the Review Committee, before a paper is approved for publication. More controversial papers may require more reviewers, or a second pass to double-check the arguments. Any Sister publishing without approval of the Review Committee is expelled from the Sisterhood, immediately and without appeal. Exceptions have been made in the past where matters of international security or human lives were involved. For example, the Review Committee excused Prof. Lavagne of the École Centrale de Lyon when she sent her preliminary research into harmonics to the Ministre des Travaux Publics, and headed off construction of a bridge that would have shaken itself apart from the prevailing winds of the proposed location.

Beyond the Steering and Review Committees, there are no standing committees or departments at the Sisterhood level. Working groups are formed as required, and dissolved when the requirement is met. In some cases, this has kept working groups going for several years. The Optics Interest Group does not see an end to their work in refining the calculus of light anywhere in the near future. Local groups organize their own committees and working groups according to their own needs. At Vassar, the Sisterhood chapter maintains a working group to administer a challenge examination comparable to the Cambridge Tripos. At Swarthmore, the recruiting committee speaks with each incoming new student to sound them out as possible Sisters, and reviews their work to see if their academic strength is sufficient.

Each individual Sister sets her own course, subject only to the basic constraints of the organization as a whole. Beyond that, the Sisterhood exists to enable women's academic freedom, not constrain it.

Resources

Money

Financially, the Sisterhood itself could be considered impoverished. The general fund does not retain much. When a project is deemed worthy of funding by the Steering Committee, monies are gathered from the Sisterhood's various sources, then disbursed from the general fund. Wealth has never been the goal of the School.

That said, individual Sisters have at times done quite well for themselves. While many senior members hold professorships or other academic positions, and thus enjoy more prestige than payment, the books they have written bring in a fair penny, and the contracts they occasionally take are far more lucrative. While not required, each Sister is encouraged to maintain a fund for the School, setting aside a bit of their earnings whenever possible in an interest-bearing account or other growth investment. These monies can then be tapped when the Sister needs to support her own work or that of other members of the School. While the collective funds of the Sisterhood would not purchase a battleship, they could certainly afford an escort cutter.

A very few women of means have been allowed to know of the Sisterhood. These ladies make occasional donations to the general fund, in return for being able to command the presence of a Sister at their salon, charity event, or other social function where a prestigious academic of the female persuasion would make an impression. Most of the time, a small percentage of the collection from such events is routed to the general fund as a thank-you. In times of crisis, these women can be approached for a special donation, although this has only been done once in the admittedly short history of the School, when Marie-Ygritte Forissier had the opportunity to lead a contingent from the University of Lyon to Camp Burlington, providing that she was able to cover the group's expenses.

Facilities

The Sisterhood itself maintains no facilities outside of Princess Mathilde's salon, keeping the files required of the Steering and Review Committees alongside the Princess's personal documents, in a purloined-letter concealment. Each Sister has access to the facilities of their academic institution or private laboratory, and is expected to grant access as feasible and required to other Sisters. The central fund can be used to lease or purchase facilities as needed for critical projects, but at this time only the Optics Working Group holds any such, renting an observatory in the Auvergne on a ten year agreement.

Contacts

Among other connections to institutions both official and underground, the Sisterhood notably maintains strong links to the Flying University of Poland. Tracing its beginnings to an 1863 decree from the Ministry of Education in Warsaw banning women from enrollment in Polish universities, and the efforts of Russia to eradicate Polish culture, the Uniwersytet Latajacy formally organized in 1872, offering a few classes in Polish history taught in the Polish language. Since then, the Uniwersytet Latajacy has grown to include courses in mathematics, science, political theory, and many other subjects. Tuition goes to paying the professors, who incur considerable risk by their participation, and to maintaining a secret library, which like the classes floats or "flies" among multiple privately held locations. While the Flying University cannot grant degrees, not being an accredited institution, its students and graduates can apply what they have learned in practical ways, and in some cases use the Flying University as a preparatory school for testing out of coursework at official schools. Some members of the Sisterhood have taught at the Flying University; others have been recruited there.

On certain days, the spirit of Marie-Sophie Germain, who passed on in 1831, can be consulted at Pere Lachaise, and once a year, on the day her paper appeared in *Crelle's Journal*, she attends the

salon. Mme Germain achieved distinction with her work on elasticity, including a paper that led to the discovery of the laws of equilibrium and movement of elastic solids. She corresponded regularly with Carl Friedrich Gauss at the University of Gottingen, who said of her, "How can I describe my astonishment and admiration on seeing my esteemed correspondent M leBlanc metamorphosed into this celebrated person. . . when a woman, because of her sex, our customs and prejudices, encounters infinitely more obstacles than men in familiarising herself with [number theory's] knotty problems, yet overcomes these fetters and penetrates that which is most hidden, she doubtless has the most noble courage, extraordinary talent, and superior genius."

Membership

Each prospective member must pass a rigorous examination, both written and oral, according to their current level of academic achievement. They must be recommended by at least three Sisters

in good standing, with written personal references. Once accepted, they must sign the Code of Conduct of the Sisterhood, which sets out its rules and regulations in plain terms. There is no formal ritual common across the Sisterhood, each chapter and geographic region having its own traditions. In France, the new member is escorted to tea at the chapter's expense, but expected to present her current research or interest during the occasion. In the British Empire, a weekend gathering is held, with a formal dinner and a speech required of the guest of honour. The celebrations of Swarthmore have tended to be a bit more raucous, with a newly minted tradition of playing practical jokes on the new member, such as putting a complex puzzle lock on her office door.

The Code of Conduct

- Sisters may not reveal the existence of the organization to men.
- No publication can be made without approval of the Review Committee.
- Each Sister must donate funds and time to the Sisterhood according to her capability.
- Weapons capable of unbalancing nations must not be constructed.
- The Steering Committee may make exceptions to the Code of Conduct, but may require conditions that are not debatable.
-

Other rules of the Sisterhood are found in the bylaws, which define the committees, the policies, and methodology of operation, as such documents do.

No regalia or symbology has been defined for the Sisterhood. Given their secrecy, it's doubtful any sort of prominent emblem would ever be adopted.

Founders

Dr. Sophie Kowalevski, a lecturer at the University of Gottingen, is (thanks to Prussia's egalitarian policies) the first woman in Europe to hold a doctorate in mathematics (summa cum laude). In her spare time, she volunteers with a work crew in the poor areas of the district, wiring homes for electricity.

Dr. Elizaveta Litvinova, U.Bern, has recently returned to Russia, but due to her ignoring the recall of women students in 1873, is blocked from finding an appointment by decree of the Tsar. She has been working with a samizdat movement, hiding her tutoring of promising female students and her research into arcane mathematics with a teaching position at a women's high school.

Mathilde Bonaparte, Princesse Française, no longer lives in quite so elegant a mansion as she did before the fall of the monarchy, but has a very nice hotel she acquired upon her return from Belgium. Her salon has been re-energized, her marriage in 1873 to the artist and poet Claudius Marcel Popelin having brought back the literati and artistes to mingle with the philosophers, scientists, and politicians of her previous acquaintance. While not a Sister in her own right, Princess Mathilde takes a proprietary interest in the Sisterhood, providing them with a venue for their meetings, a central point through which their correspondence might flow, and access to the intellectual life and printing facilities of Paris. Being the *salonnière* of such an organization, even if she cannot speak of it to most of her friends, gives her a glow of pride she really quite enjoys.

Prof. Susan Jane Cunningham, Professor of Mathematics at Swarthmore College, graduated from Vassar after studying with Maria Mitchell, and went on to found the mathematics and astronomy departments at Swarthmore. She's regarded as the best candidate when the current Department Chair retires.

Prof. Ellen Amanda Hayes, the controversial Professor of Mathematics at Wellesley, has created a storm of controversy through her outspoken atheism, her penchant for dressing in utilitarian men's clothing, and her advocacy of socialist ideas. She's also an astronomer with a credit for calculating the orbit of 267 Tirza. Her teaching degree is from Oberlin College. In her spare time, she helps run a program to educate working girls, to get them off of the factory floor and into the factory offices.

Notable Members

Alicia Boole, third daughter of George Boole, currently a student at Queens' College, is already doing work with four dimensional polytopes, including coining the word "polytope".

Sophie Willock Bryant, graduate of Bedford College, staff teacher at North London Collegiate School, widow of Dr. William Hicks Bryant (surgeon) after only a year of marriage, is currently studying for her doctorate at the University of London. She's already won First Class Honours in Mental and Moral Sciences. Her father, Rev. Dr. William Willock DD, is Professor of Geometry at the University of London, which requires her to keep her work with the Unificationists an absolute secret until she can win her degree, which should be in 1884 if she continues her work at its present rate.

Charlotte Angas Scott just this year became Resident Lecturer in Mathematics at Girton College, Cambridge. While she's doing her graduate work under Arthur Cayley at Cambridge University, her studies are being accredited by the University of London, as Cambridge does not yet grant degrees to women (for which they are being sorely beset). Her position at Girton was something of a consolation prize, as she came eighth for the Cambridge Mathematical Tripos exam, but Cambridge would not allow the title of Eighth Wrangler to go to a woman. She still has the laurel crown the students at Girton presented her with, hanging on the wall of her office.

Mary Watson Whitney, assistant professor to Maria Mitchell at Vassar, specializes in celestial mechanics. She has her masters from Vassar and three years' study in Zurich. While Professor Whitney is not an extraordinary mind as compared to some of her Unificationist sisters, she nonetheless leads her field partly by her teaching work and partly by her organizational efforts. Under Whitney's direction, the observatory at Vassar has become a hotbed of publication, with the number of papers being published rising geometrically. In private, Prof. Whitney coordinates the Union activities of the Unificationists, serving as the central administrator for the Sisterhood in the USA.

Christine Ladd, currently a graduate student at Johns Hopkins University, has done work on the algebra of logic that parallels in some ways the arguments of Wilhelm Wundt, but Ladd's work reduces psychology to mathematics. This is leading the Unificationists toward mathematical modelling of human behaviour in the aggregate. With proper calculations, they may be able to defuse crowds and prevent riots by introducing the right stimuli at the right moment.

The chapter at Wellesley College in Massachusetts has just recently recruited a promising new student, Annie Jump Cannon, a transfer from Wilmington Conference Academy where she excelled in mathematics. Miss Cannon also has an interest in physics and astronomy. She's enrolled in Professor Sarah Frances Whiting's course on Practical Astronomy.

Enemies / Allies

The Unificationists are fierce rivals of the Galvanic Order, for academic reasons. Explaining the differences the two Schools have would take (and has taken) several papers requiring advanced degrees to understand. Rivalry does not equate to enmity, however, and while the Unificationists and the Galvanics do not see eye to eye when it comes to theory, they have joined forces in practice on more than one occasion.

The Royal Society has not officially heard of the Unificationists, but a few of its inner circle know the rumours. While some would welcome highly skilled mathematicians and physicists of either gender into the august ranks of the Society, others maintain a staunch defence of the patriarchal nature of the organisation. Having that botanist granted membership at HRH Albert's insistence was chafing enough, but at least she's in the Gruv and not sitting with the men. As more women are admitted to the ranks, the old guard will have to adjust its thinking or find another venue, but they certainly won't go without a fight.

The Sons of Thoth have begun to realise the women building those marvellous devices have some sort of organisation behind them. Being what they are, the Sons are willing to admit women to their ranks if they are sufficiently ruthless and able to keep up with the men. If the Unificationists resist being infiltrated and taken over, the Sons may declare war on them, as a threat to global conquest.

Devices

Electro-Whip

Physical Defense: 3 **Mystic Defense:** 4 **Physical Armor:** 4
Mystic Armor: 3 **Barrier Rating:** 12 **Range:** 12 yards
Duration: 12 rounds (cumulative) **Effect:** Step 13 damage plus special
Cost: £25 **Weight:** 2 lbs **Availability:** Very Rare

Created while studying the interaction of electricity and magnetism, the Electro-whip uses magnetism to control an electric arc, a sort of blitzschutz with much better aim. The device itself consists of a metal cylinder a foot long and two inches in diameter, with a heavy rubberized grip and a vulcanized rubber guard. When switched on, the Electro-whip throws a 12 yard long bolt of electricity, which can be wielded as a standard bullwhip. Anyone struck by an Electro-whip takes

a penalty to all Dexterity and Dexterity-based Tests for three rounds, at -2 Steps per extra success on the Attack Test. Anyone entangled with an Electro-whip takes the weapon's base damage each round, ignoring armour. Building an Electro-whip requires a Craft Device Skill of at least 6, and knowledge of a Lightning Bolt or Galvanic Arc type spell. The Electro-whip can be switched off to conserve battery, holding enough charge for twelve combat rounds of use before needing to be recharged with reliable high tension current.

Gravitational Field Enhancer

Physical Defense: 3 **Mystic Defense:** 4 **Physical Armor:** 3
Mystic Armor: 2 **Barrier Rating:** 12 **Range:** 10 yards
Duration: 6 rounds **Effect:** Special **Cost:** £12
Weight: 4 pounds including power supply **Availability:** Very Rare

The Gravitational Enhancer enacts a Deny Movement spell (1879 Players Guide, p.376) at Rank 6 by intensifying gravity. This will halt movement by most races. In addition, the device increases the TN for STR tests by 6 for the duration.

Magnetic Disarming Gun

Physical Defense: NA **Mystic Defense:** 5 **Physical Armor:** 3
Mystic Armor: 4 **Barrier Rating:** 13 **Range:** 5 yards
Duration: Instant **Effect:** Special **Cost:** £3/6/-
Weight: 2 pounds **Availability:** Very Rare

Using focused magnetism, the Disarming Gun was designed to yank away an enemy's metal weaponry. It loosely resembles a heavy-bodied shotgun with a reinforced metal dish a foot across at the business end. Make a Called Shot against the foe's pistol, sword, or other one-handed weapon. Extra successes roll over to the Effect Test at +1 Step each. If successful, make an opposed Step 18 Test against the foe's Strength. If this is successful, the weapon is torn from the foe's grasp, and slams into the Disarming Gun's dish, dropping away at the end of the combat round. The wielder of the Disarming Gun must then make a Knockdown Test against the Size of the weapon +2 per extra success on the Called Shot Test.

Sun Thrower

Physical Defense: 6 **Mystic Defense:** 9 **Physical Armor:** 3
Mystic Armor: 6 **Barrier Rating:** 32 **Range:** 2 miles
Duration: Special
Effect: Step 50 damage to target, step 35 within 5 yards, step 20 within 10 yards, step 10 within 20 yards
Cost: £12,000 **Weight:** 1.75 tons
Availability: Only to the British and French Military

A solar-powered heat ray and one of the most powerful and yet impractical weapons ever developed, the Sun Thrower requires a large and fragile array of solar collectors, hence the low Physical attributes. It can only be fired every other combat round on a bright clear day in a desert. On an average fall day in England, one would be fortunate in the extreme to get off a shot within five minutes of the last. That said, a Sun Thrower can knock a Giffard out of the sky at two miles with that one shot. The effects of the steam explosion caused by firing into the sea near an enemy vessel are too terrible to describe here. The Empire has a pair of them at Dover, another pair at Folkestone, and a pair being built at Hastings and Bournemouth. The French have a pair at Calais, and one at Verdun, anchoring the south end of the Zone Rouge. The Paris situation has precluded construction of further installations.

Rumours of Sun Throwers in London were the result of experimental solar collection arrays at the Royal Arsenal, used for testing power accumulation levels. Of course they were.
– Percival Pemberton, Nuisance At Large

Prodigals of Nlalg

Origins

The Prodigals of Nlalg were founded by a group of wealthy commercial investors and researchers, who came together to take advantage of the changing world, to try to capitalize on new discoveries. When a cosmic shift occurs, someone turns a shilling from it. Reginald Crichton, Kenneth Radford, Bernard Cronin, Catherine Davies, and Faycal McIndoe each owned tracts of land and were engaged in social mobility. They had different business ventures, but all had made their riches primarily upon speculating with money they were born with. They approached the sudden changes to their world with the eye of financiers.

They began sifting through ancient records in search of magical knowledge, ordering research projects into foreign libraries as one might order from a menu, seeking advantage. Before long, they had piles of books and research reports. With the eyes of those used to exploiting the labour of others, they ensured none of their researchers possessed enough of their larger plans to become competitors.

After considerable work led by the brilliant Catherine Davies, they prepared for a powerful ritual to summon a "Finder of Knowledge". Bringing together a plethora of paraphernalia that may or may not have been required, they attempted to summon what they believed would be a sentient magical encyclopedia. What they ended up summoning was an ancient and bizarre being, altered by countless years in the astral plane, that promised them knowledge and information if they could help it. This led to the Prodigals bringing Nlalg into our world.

An ancient group created Nlalg as a magical servitor, tasked with the equivalent of passing messages from place to place and other small things. Nlalg was put on the proverbial shelf one day, and as magic faded from the Earth, the society was unable to further deal with it. Nlalg consumed other creations that had been left behind, using them to grow and sustain itself. Eventually, it gained sufficient strength to break free of the spells that bound it, allowing it to wander the astral plane. There, it grew, and learned.

The Prodigals' ritual was the result of extensive trial and error. While it allowed them to recall Nlalg to the world, tearing it from the astral plane caused it major trauma. The bindings that would have compelled it into service were improperly executed, leaving it free to subjugate the Prodigals to its whims.

Nlalg is still wounded and psychically traumatized. The orders it gives are at times contradictory or nonsensical. The directions given to the Prodigals, as a result, often result in the cult flailing about with little direction. All of this is couched in terms that greater magical power, more understanding, and deeper knowledge are all just a couple more favours away. Nlalg now exists as a sort of whim-ridden demigod with a tiny fiefdom. It avoids any other groups of magicians that might have the capacity to bind it or otherwise wrest control over its little area of influence. The power it has gained from the Prodigals' tributes have raised its Force Rating. Three more grand rituals and achieving Great Form will be within its grasp. That accomplished, no one will ever fail to take Nlalg seriously again.

Nlalg:
Force Rating: 12
DEX: 11 **STR:** 11 **TOU:** 14
PER: 12 **WIL:** 15 **CHA:** 15
Initiative: 11 **Physical Defense:** 24
Actions: 3 **Mystic Defense:** 24

Attack: 21 **Social Defense:** 24
Damage: **Physical Armor:** 8
Claw (9): 20 **Mystic Armor:** 15
Death: 90 **Recovery Tests:** 7
Unconsciousness: 76 **Knockdown:** 11
Wound Threshold: 21 **Movement:** 24
Adventure Award: Journeyman Tier
Skills: Spellcasting (12): 24; Willforce (13): 28
Powers: Aid Summoner (12), Astral Sight (24), Empathic Sense (24), Evil Eye (27), Find (24), Lifesight (24), Manifest (12), Possession (27)
Loot: Whatever is in its hoard

Rules
Nlalg has all spells within the Prodigals of Nlalg options, in addition to Bolt, Bind, Darkness, Fly, and Invisibility.

Goals and Methods

In essence, the Prodigals are serving a science experiment run amok. Though they believe they are pursuing further power, immortality, and a slew of other things that have been promised to them, none of these promises will be delivered.

The organisation stockpiles sources of knowledge about magic and anything even vaguely magical in nature. Of particular interest is the magic of the Saurids of the Gruv, representing something that might be completely different from what Nlalg is familiar with. These resources are brought, through circuitous paths, into the control of the group and given to Nlalg. The entity then makes a determination of whether or not each item is of use. Things that are of use are taken and believed to be consumed by Nlalg, though they may also be sequestered somewhere unknown to the membership. Artefacts that are rejected are passed on to the highest tiers of the organisation.

The Prodigals thus hold a small but powerful stockpile of magical artefacts, related items, and information in the name of Nlalg. Ostensibly, Nlalg is preparing to go to war with some outside force, but even it seems to be unaware as to what that might be. It is, in essence, preparing itself for a position of mutually assured destruction: should anyone try to attack it or bind it again, it will turn on them and ensure they are destroyed.

Organisation

The society is structured like a pyramid with Nlalg at the top, the circle of founding members below, then a series of lesser ranks. Nlalg maintains the fiction that as members are promoted to higher levels of the group, they are awarded increased magical power. In reality it's the reverse: as they achieve greater knowledge and magical power, they are promoted up the ranks. This keeps members dedicated to the cause, believing only through their dedication can they attain more power. None within the organisation contradict this dominant narrative.

In turn, the group chooses to recruit only members who are pliable and unlikely to rock the boat. Keeping the highest echelons of power in the hands of the initial circle, they have ensured it remains stable and relatively unknown.

Jealously protective of their personal fiefdoms, each member of the initial group has been bringing in followers and close allies, ensuring their loyalty is both toward the person who brought

them in, but also to the larger organisation. This division of loyalty has resulted in a great deal of infighting.

Nothing in the organisation's official structure reflects these fiefdoms. The official structure ranges from Considerate, someone they are considering for membership, to Initiate, and finally Brother or Sister once they are full members. There is no official process in place for moving up these ranks; each moves up as their magic becomes more powerful.

The group is difficult to infiltrate despite the gullibility of the membership and common infighting because it is not widely known. Their main defence is remaining a secret to the rest of the world. Should that secret ever become public knowledge, they would shrivel under public scrutiny. Nlalg would abandon its erstwhile followers and go on to other things.

Resources

Commercial interests pursued before Nlalg returned to our plane continue to exist. Many who were part of the group that summoned Nlalg continue to work for the organisation, unable to find a way to remove themselves from it.

The Prodigals have no official unified front organisation. However, any business owned by a high-ranking member becomes a de facto arm of the secret society. In some, only a few of the employees serve the Lodge, or are tasked without knowing who they are serving, their resources diverted to support the organisation. A few operate with their main purpose being to further the organisation.

Though a great deal of wealth resides in the hands of Nlalg, the entity is a packrat. Individuals from the upper echelons end up funding most of their own operations, or ones they might have an interest in. Almost all of these are undertaken beneath one cover or another. Sending someone into the Gruv, for instance, could be easily written off as an exploration for a viable mine or to establish trade, when it actually serves some far more sinister purpose.

Membership

The highest levels of membership have been stagnant, consisting solely of the original group that summoned their otherworldly patron, jealously guarding power and position. They continue to recruit new members at the lower ranks, which tends to happen through approaching previously vetted individuals, or more commonly through the introduction of friends to the fold. Like fraternities, the Prodigals grow through a member meeting a potential resource for the organisation, feeling them out, then introducing them to other Lodge members before the newcomer is voted into the organisation. Direct vetting, doing a background check and then bringing the individual straight in without the social connections and voting, only tends to be used in times nearing crisis, when there's a lack of expertise that limits the organisation, such as needing a contact in some remote location with specific skills. In those instances, the Prodigals identify an individual they have leverage over, to ensure they will comply with the wishes of the organisation.

Membership is based upon magical ability, or at the least potential. Members are not chosen solely for this ability; many are recruited for their skills in other areas. Possession of magical ability is a prerequisite solely because they believe Nlalg can help them improve their magical ability, and addicting their membership to this process will ensure they remain under the group's thumb.

As a result, most new members join already capable of using magic. The Lodge has become a dangerous combination of the gullible and the magically inclined. Infighting is incredibly common, but often of limited impact. Most of it is small scale, such as hoarding of books or squabbling over which individual is under the command of which head of the Prodigals.

Enemies / Allies

Nlalg is wary of any magicians that lie outside the Prodigals. This attitude permeates the

Lodge's ranks, making them especially sceptical or secretive around other magicians, often being justified by concern that others would attempt to steal Nlalg and the "gifts".

Nlalg has lied to the group about this, claiming credit for increasing powers within the group that can be attributed to other causes. In many ways, it is similar to a martial arts teacher claiming credit not only for the expertise being imparted, but for the biological process of being stronger as well. With so little currently understood about magic, the Prodigals are unable to disagree, and the fiction is one of the main unifying forces of the group.

Gifts from Nlalg

Nlalg has been able to dole out a series of gifts to its followers in the form of teaching them different spells. The spells are powered by their absolute belief Nlalg is some higher power that has come to them, proffering them gifts and other advantages. Their belief still works, despite not realizing Nlalg is little more than an experiment that sat on the shelf for too long and grew a bit weird.

The ongoing success of the organisation has ensured Nlalg has additional gifts in its hoard to distribute as needed, either as artefacts and treasures that have been given to it, or through learning spells from materials it's been given, then deducing its own spells from them.

Spell List

Spell	Tier	Known As	Style	Modifications
Read Memories	Initiate	Seeing of Truth	The magician must touch the spell target.	This spell works as the Read Memories spell in the *1879 Players Guide*, p.389, but the group believes it is a way of seeing the truth of the subject's experiences.
Determine Components	Initiate	Assess Value	See new spells below.	See new spells below,
Read Intent	Initiate	Read Intent	See new spells below.	See new spells below.
Astral Sight	Initiate	See Truths	The Prodigals have required the use of seeing and sensing the magical and otherworldly for their goals.	Same as in the *1879 Players Guide*, p372.
Entropy	Novice	Rust	The target object rusts at an alarming rate. Burns appearing to be chemical in nature etch the sides, and it falls apart.	This spell works like Entropy but has a range of 10 yards instead of Touch. Strain 6.

Spell	Tier	Known As	Style	Modifications
Fix	Novice	Mend	The object appears almost alive under the ministrations of the Prodigal, wrapping itself back together and working to mend itself.	Range 10 yards within line of sight (extended from base spell Touch); Strain 7.
Read Object	Novice	Know Origins	Looking into the past of an object, Prodigals can learn its potential value, either to the original owners or those who don't want it revealed. The only visible change to the object is a slight shifting of its shadows as it is read.	Range 10 yards within line of sight (extended from base spell Touch); Strain 7.
Reduce Attitude	Novice	Bribe	The order's specialised version ties to the concept of bribes and favours. There must be an exchange of money, an object, or the promise of a favour from the magician to the other party for this spell to work.	None.
Improve Attitude	Novice	Befriend	Often disguised with a pat on the shoulder or a hearty handshake, the Prodigals have been able to use this and write it off as just "one of those things".	None.
Summon Great Nlalg	Journeyman	Summon Great Nlalg	See new spells below.	See new spells below.

New Spells

Determine Components

Tier: Initiate
Casting Difficulty: 6
Casting Time: 1 round
Range: 10 yards
Duration: Instant
Effect: WIL + Rank
Strain: 3

This spell is unique to Nlalg's followers, based on an old spell found in an early medieval grimoire for alchemists and others who needed to know the precise makeup of compounds, and is now used to determine the value of various products they find and to replicate the composition of others. This spell allows the caster to know the constituent parts an object is made of: they can identify if an object is gold or feldspar, or the chemical makeup of an alloy, for example.

Read Intent

Tier: Initiate
Casting Difficulty: TMD
Casting Time: 1 round
Range: 10 yards
Duration: Instant
Effect: WIL + Rank
Strain: 3

The magician must be able to see the target, and focus on them for a few seconds. This ability allows them to determine the target's intention for their next immediate action, in broad strokes. This does not allow them to see the future; it is merely showing their intention for their next action. This spell is another Nlalg has helped his disciples develop for relatively mundane purposes. They use it, most often, to give them a slight edge in business dealings. Through determining the next action, they are often able to say the right thing in the middle of a business deal to defuse a situation, or something in a similar vein.

Summon Great Nlalg

Tier: Journeyman
Casting Difficulty: TMD
Casting Time: Ritual, 30 minutes
Range: 1,000 km
Duration: Instant
Effect: Special
Strain: 12

The practitioner creates a circle of bones and places one of the five summoning flutes in the center. This allows them to summon Nlalg from anywhere in the astral planes to within the current circle. The spirit is not bound to the circle, as that portion of the spell has been lost. The practitioner must make a Spellcasting Test against Nlalg's Mystic Defense, if it is resisting. If successful, Nlalg appears. Nlalg can choose to come willingly, in which case the spell is automatically successful if performed properly.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4

Dragons

"Noble dragons don't have friends. The nearest they can get to the idea is an enemy who is still alive."
-Terry Pratchett

Introduction: The Idea of Dragons

A close look at the abilities and statistics of dragons should reveal one obvious truth: the adventurers are unlikely to face anything more dangerous! The youngest of dragons is more powerful than most heroes. No one in their right mind would take on a great dragon with anything less than a reinforced armoured battalion, preferably with artillery support. Fortunately, only rarely will adventurers find themselves facing a dragon, and likely they will never confront a great dragon directly. Nonetheless, using dragons in adventures is a delicate business.

The Gamemaster must consider carefully which dragon to use, as well as the role the dragon

should play in the adventure or campaign. Before we address these issues, we should ask one question. Should dragons be this powerful?

Absolutely.

Dragons are the oldest and most powerful creatures in the world. Their knowledge of magic is far beyond that of a world newly awakened to the possibility. Even the greatest magicians of the Saurids pale in comparison to a dragon's magical ability. High Tier adventurers should feel nervous at the thought of facing off against them under any circumstance. Gamemasters should exercise great care when using dragons, and ensure they don't become just another monster. Dragons are powerful, intelligent beings with their own desires and goals.

In 1879, dragons may be allies, enemies, or puppet-masters. They function best behind the scenes, spinning plots and pulling the strings of great powers. A great dragon could lay waste to a country in a single night, but they prefer to act indirectly. This fact, along with their nature to act alone, explains why the dragons don't simply descend en masse against those who offend them. They take a much longer view. After all, what is a century to a being who measures time in millennia?

As a side note, when a dragon causes property damage and/or loss of life, one's interests will be served better by Chancery than the Assizes. Those bold enough to demand recompense, or a blood price, will generally find the dragon willing to hold to the ancient concepts, and pay for their misdeeds in gold. Those who attempt to bring charges, on the other hand, may find it difficult to locate a Crown Prosecutor willing to file the papers, much less a police officer willing to place the dragon under arrest. On a good day, the dragon's response might be a chuckle and a question as to which army the officer has brought to enforce the demand. On a bad day, well, now we're back to Chancery, aren't we.

Dragons as Allies

Dragons are intelligent beings with their own desires and goals. These can sometimes coincide with those of lesser beings, as demonstrated with Hyrdofeay's efforts to clean up the Thames. These situations allow a Gamemaster to introduce dragons as allies or patrons of the player characters.

With their considerable knowledge of magical and mundane matters, a dragon ally can provide secrets of the rich and powerful, magical knowledge, spells, and other important information. Dragons are also known for having great wealth. With a dragon as patron, it is possible for adventurers to have their expenses covered, as long as their actions further the dragon's cause.

But dragons are not known for their generosity. They give nothing away unless it benefits them in some way. Gifts given to the player characters come with the expectation of loyalty and service. While beneficial in the short term, an alliance with a dragon is likely to be temporary. Once the dragon's objectives have been met, support will vanish like smoke in a high wind.

A typical arrangement might involve the dragon asking the player characters to perform a specific task in exchange for some service or resource the dragon has to offer. For example, the characters might seek out the great dragon Leydon in hopes of learning the location of a scroll that survived the burning of Alexandria. In return, Leydon asks the characters to stymie the plans of the Hesperidean Society, whose name alone offends the guardian of the Garden of the Hesperides. Upon bringing proof that the Hesperideans have been thwarted, Leydon gives the player characters the information they seek.

Gamemasters can also establish more lasting relations. A dragon can serve as patron and mentor for the heroes. In exchange, they serve as the dragon's eyes and hands in society. Dragons practically invented spycraft, running networks of agents.

While dragons usually treat their servants well, they are not bound by the culture and beliefs of other races. Dragons are arrogant and often treat the lesser races as children or pets. It is not uncommon for a dragon to sacrifice agents in pursuit of a goal. Heroes chosen for sacrifice will likely not take the same dispassionate view of the situation as their patron. If they survive, they may choose to seek revenge on their former mentor.

Dragons as Enemies

A dragon can be an epic foe for an 1879 campaign. They have great physical ability and magical power, and the intelligence to use both well. Fighting a dragon should never be easy; such a battle should be the climax of a long campaign, rather than a simple encounter.

Fortunately, dragons rarely wait around for would-be hunters to come and find them, being plotters and schemers by nature. To carry out their plans, they operate through complex networks of servants and informants. The nature of dragon culture and custom keeps them aloof and separate from the day-to-day affairs of mortals.

A dragon villain works best behind the scenes. During their early adventures as low-Tier heroes, the characters interact with the dragon's servants and agents, their master's presence virtually unknown. As the characters gain power and advance in Tier, they encounter more powerful servants and uncover more schemes, becoming a thorn in the dragon's side. Eventually the heroes may gain enough power to confront the dragon directly and slay it in an epic battle that shakes the earth and makes the front pages of newspapers the world over. The defeat of a dragon is the stuff of legend.

The power and nature of a dragon creates an interesting dilemma for Gamemasters, because a dragon can easily kill all but the most powerful heroes. While character death – especially cheap character death – is generally undesirable, the hazards of facing a dragon should not be downplayed. If the characters escape unscathed every time they encounter a dragon, the significance of dragons becomes diluted. The threat and danger they present to the world becomes less sincere.

So how can a Gamemaster use a dragon as an enemy, maintaining the threat a dragon represents, but not kill the characters in each adventure? Following are some suggestions for how to resolve this dilemma, while remaining true to the essence of the 1879 universe.

Dragons should be long-term opponents. They should be used over an extended campaign in which the characters discover the dragon's plans, encounter its victims, or witness its powers in use. This serves two purposes. First, the players encounter the dragon indirectly. Over time, they learn of its influence and ability. Second, an extended story gives the characters a chance to expand their own power and experience. This makes them more able to face the dragon, or at least its servants.

A dragon should not be something fought once and slain. Only the most experienced adventurers have a chance at surviving an encounter with a dragon, let alone defeating one. Each dragon presents an opportunity for a unique storyline based on the individual dragon's attitudes and goals. Allowing the characters to learn about, confront, and battle Leydon in the course of a single adventure is a waste of a good opponent.

Characters need not directly confront the dragon at all. Many dragons work through agents. Some might not even be aware they serve a dragon's goals. A series of adventures focusing on disrupting the dragon's plans allows these powerful creatures to be used without risking the lives of the characters, at least too much.

Of course, if a dragon's plans are disrupted too often, it might just focus its attention on the responsible party. This is generally a bad thing and should be used to emphasize the dangerous nature of the world of 1879. Even if they survive, the characters should suffer losses of some sort

to reinforce the power a dragon represents. It should be a significant event, destruction of their home, loss of title or lands, scandal and humiliation in the press; not simply one of the players needing to make a new character. Don't let the death (or other type of loss) of a character happen for no good reason. The characters in 1879 are heroes. If they are going to go down, let them go down heroically!

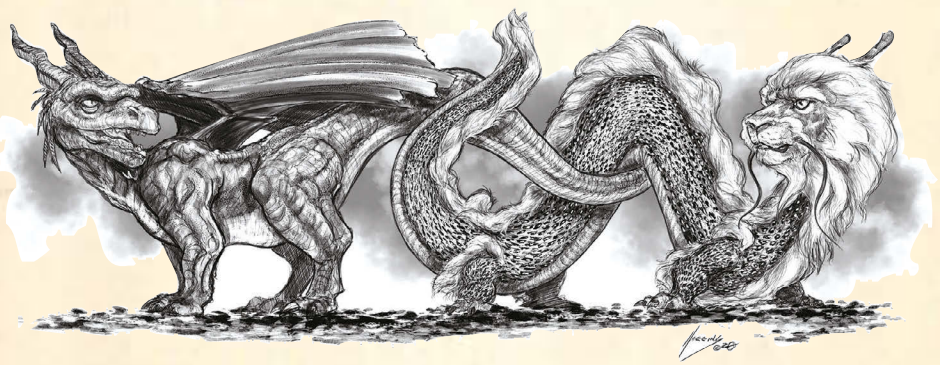
Customizing Dragons

The game statistics provided in this chapter present only a rough guideline for the powers and abilities of dragons. The Gamemaster should use these as a starting point, not as the final word on any specific dragon. These are not simple monsters to slay; they are individuals with goals and motivations.

Gamemasters should reflect a dragon's individuality by adjusting the abilities, attributes, and Step numbers given in the examples to suit the characteristics of the dragon in question. For example, if a dragon is intended to be larger than average, it might have increased physical attribute Steps, Attack and Damage Steps, and similar characteristics. A dragon said to be skilled at magic would have a higher Spellcasting Step. Individuals may also have different Ranks for their Skills and Powers, and may have different Powers from those provided. Refer to the Special Abilities of Creatures section of the Bestiary chapter, 1879 Gamemaster's Guide, p.346, for additional Powers, such as Venom.

Remember each dragon has a unique appearance, personality, and goals. The Gamemaster should consider: what sets this dragon apart? What does it want and how does it go about getting it? Like any sapient being, personality and temperament can provide notable insight into the way a dragon will relate to other people.

Types of Dragons



Dragons show considerable diversity of form and colouration, much more so than humans, Boojums, and Saurids. Two hatchlings from the same clutch may resemble each other only in basic morphology – having four limbs, wings, a head and a tail – and may otherwise differ in colour, scale pattern, dorsal ridges or plates, whether or not they have horns or tail spikes, and so on. That said, dragons classify roughly into five types, with one (Great Dragons) being an evolution of

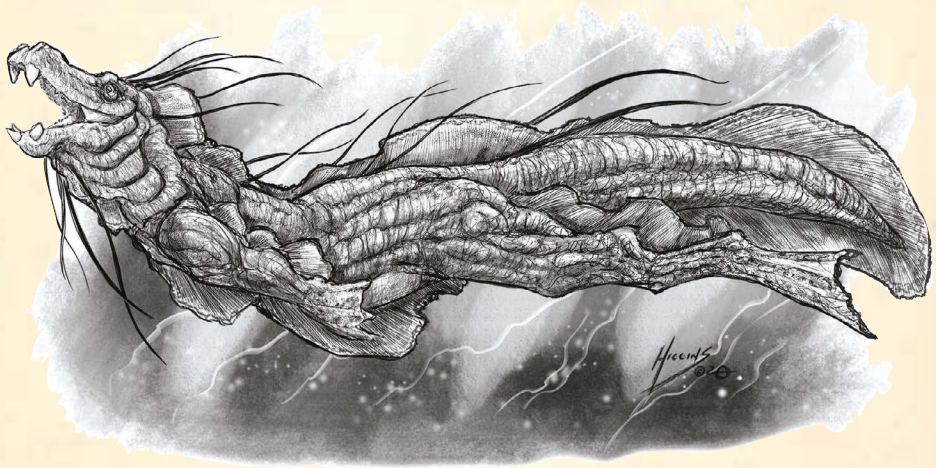
another (Common Dragons). An examination of each of these in turn is in order before going on to specifics about powers, culture, and so on.

Western "Common" Dragons

The first rule of common dragons is, don't call them common dragons. They're proud, fierce entities that do not take well to the meaning of "common", and tend to find themselves hungry after encountering the word. Dropping the offensive term and simply calling them "dragons" will do, but then there's the problem of differentiating them from the other types. Thus far, no satisfactory solution has been found in any Terrestrial language, although "Western dragon" at least makes reference to their usual geographic origin and habitat, and does distinguish them from the Eastern sorts, who also have morphological differences.

These dragons take the form best known to people of European descent: a massive creature the size of a bus, with four limbs, the forward of which can be used to some extent as arms as well as legs, bat-like wings sprouting from a second shoulder girdle just behind the first that supports the forelegs, a long saurian tail, and an equally long neck. Their heads are generally triangular in shape as seen from above, with bony crests over the eyes flaring out to expand the wedge, and a pointed snout with massive teeth that can be kept hidden in the mouth, unlike the carnivorous dinosaurs some people try to compare them to. The males generally have horns, and once in a while the females also, rising from the top of the skull well behind the eye ridges. Some have a ruff around the base of the head that blends into a row of spines down the dorsal ridge, with others have no ruff, and may have triangular plates like the stegosauria. Colouration tends to be darker down the sides and back, and lighter on the belly and the undersides of the limbs, sometimes of two or more hues. Tail spikes may or may not be present.

Leviathans



Found in the deep rivers, larger lakes, and the open ocean, leviathans have no wings, and are built longer and more slender than Western dragons. Their legs have little dexterity, and their feet are webbed for better navigation in their native environment. Their scales tend to be smaller and more tightly overlapping, giving leviathans a wet, iridescent appearance, even out of the water. They

tend towards oceanic colours of blue-green, with some paler and darker colours known. When they leave the water, which is rare, their movement is sharply limited in speed and agility. Through the use of magic, they can fly, undulating through the air as if through water, although they find this tiring and use the ability only when they must. Contrary to myth, leviathans can breathe air as comfortably as water.

Facially, they more resemble a crocodile than a land-dwelling dragon, with a long, toothy snout capable of engulfing an entire school of fish at a mouthful. Their bite is their most terrible weapon, although some can also strike considerable blows with their tail, and even the weakest leviathan can reduce a Cornwall coastal fisher to splinters with a single attack. Their tail may also include a venomous stinger, although if such is present, the dragon will normally hold it back for a foe requiring such and not use it casually.

Eastern Dragons

Eastern dragons are similar in appearance to leviathans in that they have no wings and long, sinuous bodies, but the similarities end there. They have a fringe of whiskers along the chin and back of the head, as well as a pair of horns whether male or female. Their limbs are well developed and highly dexterous, as much so as those of a human or Boojum. Their senses of sight and smell are similarly well developed, and they have larger eyes and nostrils than Western dragons. Where Western dragons appear armour-plated, Eastern dragons have small, iridescent scales in a variety of colours, green, blue, red, and gold being predominant.

Eastern dragons swim through the air by magic as leviathans do, though much more gracefully. They tuck their legs up close to their bodies and move with an undulating motion, constantly swirling through the air, demonstrating their mastery of the winds. They tend to have their lairs in high places exposed to the air, such as mountain peaks. A few of the greater Eastern dragons have used elemental magic to sculpt cloud palaces high above the earth, elaborate structures quite unlike the simple network of caves associated with Western dragons.

Feathered Serpents

Found from Mexihco down through Central America and well into the South American continent, feathered serpents vaguely resemble the Eastern dragons, but have only one pair of forelimbs, no hind legs, and a great pair of feathered wings. Their bodies are also covered in feathers, with a ruff around the neck and a tuft at the end of the tail, all in brilliant colours, blue, green, red, yellow, and purple all being possible in a single dragon. Overall, they are smaller than

Eastern dragons, which makes them the smallest of the four primary types in general. One should not underestimate them though, as they are still dragons, capable of great and powerful magic and tremendously strong. As well, feathered serpents have venomous fangs, and a similarly venomous spine hidden in the feathers at the end of their tail, of a particular virulence.

Tradition holds that feathered serpents are adept with illusion magic, both of the physical and mental variety. Looking back into Meso-American mythology, these dragons were revered as gods, and served both by scholars and by priests who offered blood sacrifices. What the true nature of these beings may be, especially in such a different world than that of Kukulkan and Quetzalcoatl, remains to be seen.

Great Dragons

Not a separate species, but an evolution, Great Dragons may occur within any of the previously described four types. As dragons age, they continue to grow, physically, magically, in knowledge, and in power. There comes a point where a dragon is recognised by its fellows as an elder, one who has gained the wisdom and subtlety required to provide leadership and guidance to the younger of their kind, and where those already acknowledged as Great Dragons accept a new peer.

In general terms, a Great Dragon has at least twice the physical strength and endurance of a younger one. They may be able to control their fiery breath with considerable precision, able to pop a kettle of popcorn without scorching a single kernel. Their Dragonspeech will reach further, and delve deeper into the minds of lesser beings. They may be able to create new magical effects not before seen whenever they need to. More than any of this, though, their knowledge of the world stretches back for thousands of years. Great Dragons will have done and seen more than any being born since the turning of the last millennium. Their plans stretch back behind them into

distant aeons, and forward into all the possible futures. Attempting to outwit a Great Dragon would require a mind more subtle than the greatest Go master Nippon has ever brought forth.

Dragon Powers

All dragons have Armored Scales, Dragonsight, Dragonspeech, Karma, and Spellcasting. They may also possess other powers, depending on their age and status. As a dragon ages, it develops new powers and improves existing ones. Great Dragons often have all of these powers (and more). There are no hard and fast rules for what additional powers a dragon may have, as each one is a unique individual.

Armored Scales

Step: NA

Action: NA

A dragon's armoured hide provides great physical and magical protection against attack. Damage resulting from extra successes on attacks is reduced by one Step per success. For example, under normal circumstances an attack with a melee weapon with two extra successes does +4 damage. Against a dragon with Armored Scales, this only does +2 damage, each extra success losing one Step of staging. This damage reduction also applies to spells that deal extra damage with additional successes.

Dispel Magic

Step: Rank + WIL

Action: Simple

Because of their innate understanding of magical forces, dragons can disrupt magical effects at will. This power works like the Dispel Magic Skill (1879 Players Guide, p.194), but is a Simple Action, and has a range of 30 yards.

Additionally, this power can be used to dispel the magical effects of Skills and creature powers (including spirit and dragon powers) with a sustained duration. Use the Skill or power's Step Number as the Tier on the Dispel Difficulty Table (1879 Players Guide, p.367) to determine the Target Number for the Dispel Magic Test, where Initiate = 1, Novice = 2-4, Journeyman = 5-9, Warden = 10-12, and Master = 13-15. If a creature power or ability Step Number is higher than 15, add +1 to the Dispel Difficulty for each Step above 15. For example, a power with Step 17 would have a Dispel Difficulty of 24 (22+2).

Disrupt Fate

Step: Rank + WIL

Action: Free

This power allows the dragon to alter the fate of other creatures. The dragon spends a Karma Point and then makes a Disrupt Fate Test against the Mystic Defense of a target within line of sight. If successful, the target must immediately repeat the most recent Test made. The new Test result stands and cannot be disrupted a second time.

As long as the dragon has Karma Points available, it may make as many Disrupt Fate tests

as there are targets, but only one Test per target in a combat round. Spending the Karma Point entitles the dragon to use this ability; the dragon's Karma Step is not added to the Test.

Dominate Beast

Step: Rank + WIL
Action: Standard

The dragon can control animals through a combination of intimidation and mental control. The dragon makes a Dominate Beast Test against the Mystic Defense of any animal (or the highest Mystic Defense in a group of animals) the dragon wishes to control, the only limit being that the target beasts must be within line of sight. If successful, the dragon controls the target creatures for a number of minutes equal to its Dominate Beast Step.

An animal under the effect of this power will not take any hostile action against the dragon, and will perform one simple task for the dragon that does not exceed the duration of the power. Attempts by player characters or GMCs to dominate or control a beast under the effect of this power must exceed the result of the dragon's Dominate Beast Test.

Dragon Breath

Step: Rank +15
Action: Simple

Dragons are notorious, and rightfully feared, for their fiery breath. Most Western cultures have tales of a furious dragon raining destruction down on villages, towns, or cities. Dragon Breath targets everything within a 90-degree arc, using the dragon's mouth as the arc's center. The distance the flame extends is based on how much Strain the dragon is willing to take, as indicated on the Dragon Breath Table.

Dragon Breath Table

Strain	*Range*
1	10 yards
5	20 yards
15	40 yards
30	60 yards

The dragon makes a Dragon Breath Test and compares the result against the Mystic Defense of each target within the area of effect. All affected targets take damage equal to the Test result, reduced by Physical Armor. The flames last for one round per success on the dragon's Dragon Breath Test. The dragon makes a new Dragon Breath Test for damage each round, which is applied to all affected targets.

Dragon Breath damages and burns items, including armour and weapons. Damage is applied to the Barrier Rating of the item each round, potentially rendering them useless, though magical items are only affected if the dragon's Dragon Breath test equals or exceeds the item's Mystic Defense. Armour and weapons suffer 2 points of damage each round they are exposed to the flames, with the losses being spread as evenly as possible among the item's ratings. For example, fernweave

armour would lose 1 point each from its Physical and Mystic Armor each round.

If an item's Barrier Rating, a weapon's Damage Step, a shield's Physical Defense bonus, or a suit of armour's Armor Rating(s) are reduced to 0, the item is destroyed. If an item is not completely destroyed, damage may be repaired as normal (1879 Players Guide, p. 278 for damaged weapons, p. 293 for armour and shields).

Dragonsight

Step: Rank + PER

Action: Simple

Dragons can view astral space, with Dragonsight working like the Astral Sight Skill (1879 Players Guide, p. 183), without the Strain requirement. Dragonsight has the same range as the dragon's physical vision, giving it a massive advantage over Astral Sight. The dragon makes a Dragonsight Test as an astral sensing Test. For more information about the use of astral sensing abilities, see Astral Sensing in the 1879 Players Guide, p.341.

Dragonspeech

Step: Rank + CHA

Action: Free (Special, see below)

Dragonspeech allows dragons to transmit thoughts directly to any being within range (line of sight for entities the dragon has not previously met, Rank x 100 miles for known entities). The dragon can also send simple images as well as speech through its mental link. Dragonspeech transcends language, allowing a dragon to communicate with another being whether or not it normally understands the subject's language. The target hears the dragon as an echoing 'voice' in their head and recognizes it as the dragon. In turn, the dragon can 'hear' the target's reply, whether it's spoken aloud or thought about with the intent of the dragon hearing it. There's an entire suite of etiquette involved in dragons using Dragonspeech to communicate with each other. Mortals don't qualify for that level of politeness.

Dragonspeech can be used to communicate with spirits. Use this power in place of Spirit Talk or Elemental Tongues for negotiations. Dragonspeech can also be used in place of the Read Thoughts and Read Memories spells (1879 Players Guide, pp.389, 390). Range for both effects is line of sight, casting time is instant, and there is no Strain cost. Use the Dragonspeech Rank to replace Spellcasting Rank. Targets of the Read Memories effect suffer some discomfort, with a feeling as if their head is a file cabinet and the dragon is riffling through it.

Fear

Step: Rank + CHA

Action: Free

Dragons project an intimidating, even terrifying presence. The dragon can at any time make a Fear Test against the Mystic Defense of all characters within 40 yards. If successful against a given character, the target suffers a -2 Step penalty per success scored on the dragon's Fear Test on all Tests the character makes against the dragon until the next sunrise or sunset (whichever comes first). This power cannot be used against a target again until the duration has expired, even if it was initially ineffective.

Karma Cancel

Step: Rank + WIL
Action: Simple (see below)

Karma Cancel allows a dragon to override another character's use of Karma. The dragon makes a Karma Cancel Test against the Mystic Defense of a target character within line of sight. If successful, the dragon may spend a Karma Point to cancel the target's use of Karma on any Test as a Free Action until the next sunrise or sunset (whichever comes first), whether or not the target remains within line of sight. No further Test is necessary – the dragon simply spends a Karma Point to nullify the target's Karma expenditure. If a target spends multiple Karma Points on a Test (for example, when using the True Shot Skill), the dragon must spend the same number of points to cancel them.

Karma Points

Step: Special (see text)
Action: NA

All dragons have Karma, with a Step indicated by the value in parentheses after the Karma power in the description, and a Karma Modifier of 4, which is multiplied by the dragon's Karma Step since dragons have no Professional Rank. Dragons may spend Karma on any Test. Unless otherwise noted by a particular power, a dragon may only spend one point of Karma per Test. Dragons regenerate one fourth of their Karma per day.

Lair Sense

Step: Rank + PER
Action: Free

Dragons can easily notice intruders anywhere within their lair, the place they have claimed as their home. This means that Hyrdofeay can sense intruders in Westminster. Any time a character in a dragon's lair performs an Action that requires a Test, the dragon makes a Lair Sense Test against the character's Mystic Defense. If successful, the dragon knows the character's location and what they have just done. This power can only be used against any given target once every ten minutes. Dragons often set traps in their lairs to take advantage of this power, forcing characters to take direct action against the trap and thus reveal their presence.

Poison

Step: Rank + TOU
Action: NA

Dragons with this power are able to damage a victim with poison. Some dragons have venomous fangs; others have a stinger on their tail or glands that inject venom with their claws. If the target takes damage from an envenomed attack, they must resist the poison's effects. Dragon venom is typically a damaging poison, but may be of any variety. Some dragons even have a combination of poison types. See Poison in the 1879 Gamemaster's Guide, p.239, for more information on the game statistics provided. A single character can only suffer from one use of the Poison power at a time.

Regeneration

Step: Rank + TOU

Action: Simple

Dragons may heal damage at any time by making a Regeneration Test and reducing their Current Damage by the result. Use of this power costs the dragon a Recovery Test and 1 Karma Point. The Karma Point spent does not add a Karma die to the Test. This power may also be used to heal a Wound instead of reducing Current Damage.

Skills

Step: Special (see text)

Action: Special (see text)

Dragons may know any Skill in any 1879 sourcebook. Refer to the Skills chapter on p.169 of the 1879 Players Guide for a description of the more common Skills and how they work.

Spellcasting

Step: Rank + PER

Action: Standard

Dragons have an inherent ability to manipulate the energy of astral space, and as a result cast spells. The dragon doesn't need to have learned the Base Spell or KAV. It simply shapes astral energy to its will and the spell happens.

Dragons cast all spells with the following modifications.

Astral Condition TN Adjustment: Dragons take no TN Modifier for Open, +1 for Tainted, and +2 for Corrupt.

Focus TN Adjustment: Dragons gain an extra point of advantage, while Great Dragons gain double advantage from having a Focus. For example, normally a blood sample grants a -2 reduction to the Target Number. If a Western dragon has a blood sample from the target, they gain a reduction of -3 to the Target Number for the spell, while a Great Dragon with a blood link would gain a reduction of -4 to the Target Number.

Base Strain: Reduce Base Strain by half for adult dragons, and to one-fourth for Great Dragons.

Raw Magic Warping: Dragons do not check for warping in Safe or Open areas. Adult dragons reduce the Warping and Damage Steps by half in Tainted and Corrupt areas. Great Dragons reduce the Warping Steps for Tainted and Corrupt to 2 and 3, and the Damage Steps to 3 and 4.

Casting Time: Because dragons have direct access to mana, Casting Time is reduced. Hatchlings still require the same amount of time as mortals, using the Casting Time as listed for the Base Spell or KAV. Adult dragons cast all non-ritual spells as Simple Actions. Great dragons cast all non-ritual spells as Free Actions, their only restriction being their Actions per combat round. Yes, this means the great dragon Hyrdofeay, with 5 Actions, can cast 5 spells in a single combat round, and still take 5 physical Actions.

Spells

Step: Special (see text)
Action: NA

Dragons are natural-born spellcasters, with an inherent knowledge of the workings of magic. They do not know spells in the same way as mortal magicians. As described above under Spellcasting, the dragon simply shapes astral energy into the desired form. The Spells power represents the maximum Tier of spell effects the dragon can produce, and so is listed as Novice, Journeyman, Warden, or Master, instead of a number. Dragons may use any spell in the 1879 game world of their Tier or lower.

Suppress Magic

Step: Rank + WIL
Action: Standard

Some dragons have developed their ability to shape magic to the point where they can interfere with the use of magic by other creatures. The dragon makes a Suppress Magic Test against the Mystic Defense of the target, which must be within 30 yards and line of sight. If successful, the target takes a -2 Step penalty per success to magical Skills, damage from magical weapons, and any other magic use. Enchanted armour and weapons cannot have their protection or damage decreased below their base ratings. For example, a heavy revolver enhanced with Forge Firearm cannot have its Damage Step taken below 8 by this power.

The effect lasts until the next sunrise or sunset (whichever comes first) and may only be used against a given target once per day. Dragons can selectively use this ability to suppress a specific type of magic, such as Skills, magic items or spells, instead of suppressing all types.

Wingbeat

Step: Rank + STR
Action: Standard

Dragons with wings can use them to knock over opponents. The dragon makes a Wingbeat Test against all characters in a 10-yard long 90-degree arc. All characters within the area of effect must make a Knockdown Test against the dragon's Wingbeat Test result. If a character fails the Knockdown Test, they are knocked back a number of yards equal to the amount by which they failed the Test. For example, a character failing the Knockdown Test by 8 is knocked back 8 yards.

Draconic Culture

As with humans and Boojums of different nations, different types of dragons have unique cultures, but there are some commonalities that are worth mentioning. Knowing the basic rules of draconic society and etiquette may mean the difference between leaving the lair on foot, or in half a dozen small boxes.

Language

The Draconic language is partly spoken, although with the Dragonspeech power, and partly a matter of posture. The young are taught several hundred Postures, ways of standing, sitting, holding their wings, and learn to communicate a great deal with the tilt of their head, a widening or narrowing of the eyes, and other subtle cues. Like the pitch of the voice in an atonal language, the posture of the dragon adds meaning, turning what could have been a statement into a question, or a query into a flat declaration that the one being questioned already knows the answer, and all that is sought is confirmation. Those who are not of draconic nature, and do not have the necessary anatomy, simply cannot learn Draconic properly. Badly spoken Draconic may be taken as an insult.

The good news is that dragons have an apparently infinite capacity for learning the languages of lesser beings. They generally regard it as polite to speak to each person in that person's native tongue, and so can be counted on to be fluent in English, French, German, Mandarin, Hindi, Kannada, Xhosa, or whatever else is needed. If all else fails, Dragonspeech bypasses the issue of language entirely, allowing direct mind to mind communication in which each person involved hears everything said in their own native language.

Forms and Formalities

Etiquette, it is said, is the grease in the machinery of society. Knowing the proper form for addressing a dragon based on its type, origin, age, and so on, contributes substantially to making a good first or lasting impression. Performing the correct rituals for greetings, departures, and petitioning for favours shows respect for the dragon, and may grant the petitioner an edge in gaining what they want from the meeting. When dragons speak directly with each other, or much more rarely meet face to face, observing the proper forms and formalities keeps the encounter from turning bloody and possibly causing collateral damage to the nearest town.

Leviathans tend to observe the formalities only with each other, having little interest, if any, in life on the surface. Earth long ago lost its aquatic lesser cultures, and so the leviathans have had no one to reawaken the ancient memories of the forms involved in dealing with them. Approaching a leviathan requires great caution, and a willingness to put on enough of a show of respect to gain the dragon's attention, as they tend to ignore anything that isn't a threat, a meal, or another leviathan. With the last, or a surface-dwelling dragon, the meeting is likely to start with a Rite of Challenge or a Rite of Courtship, as leviathans rarely approach each other except to fight for territory or to mate.

Eastern dragons, on the other hand, relish the attention and adoration of lesser races, building elaborate palaces or taking on servants to do so, and populating them with sages, poets, musicians, athletes, and entertainers of various stripes. Resuming their culture from aeons ago has been easier due to the long memory of the East, and the surviving myths and traditions the Eastern dragons have been able to tie into and reawaken. On their appearance, many people swore themselves into the dragons' service, and more gathered in hopes of being hired on as guards, mercenaries, builders, and the like. The dragons in turn have taken up their legendary positions as patrons of the arts, sponsors of great works of scholarship, and near-divine entities residing in celestial palaces, or at least elaborate lairs built in the heights of the mountains.

Their emphasis on manners and decorum reflects the cultures that surround them, and may form some of the basis for the Japanese and Chinese insistence on formality (while this may be stereotypical, it is an extremely pervasive view held for this time period). Their rites and rituals are more complex and cover more situations than those of Western dragons. Spending the time to study

their etiquette is critical to the success of any audience with them. Knowledge of the arts, of history and science, and a talent for conversation will also win points. Those who can pay the appropriate compliments to the delicate pottery and fine jade sculptures in the dragon's lair, without being overly effusive or directly flattering to the host, will rise in the dragon's estimation.

Little is known of the etiquette of feathered serpents. Perhaps those with ancestry leading back to the Toltecs, the Olmecs, and other native peoples of Central and South America will be able to determine how to treat with beings found in the legends of their forebears. Maybe a new role will arise for the feathered serpents in the radically different world they have awakened to, after the fall of so many great civilizations and the rise to dominance of the European colonizers.

Great Dragons hold the position of elders within each type of dragon. They care for the eggs of their type, younger dragons bringing theirs to the Great Dragons to be added to the clutch for safety. They carry forward the traditions, and teach the young the Rites and Rituals necessary to the survival of their species. They guard the past, the troves of knowledge gathered by dragonkind over millennia, making sure that ancient secrets are neither forgotten, nor learned by those who are not ready for both the impact and the responsibility. Each Great Dragon is a rule unto themselves, and has the right to determine how they should be approached, addressed, and bargained with. One should never assume that because one has dealt with a Great Dragon before, that the experience will be in any way applicable to the next.

Dragons of Britain and Western Europe

Later works will explore the dragons of other lands, and may introduce new dragons in the British Isles and northern/western Europe.

Average Statistics

Western "Common" Dragon

DEX: 18 STR: 25 TOU: 27
PER: 19 WIL: 22 CHA: 20
Initiative: 21 Physical Defense: 25
Actions: 1 Mystic Defense: 22
Attack: 23 Social Defense: 20
Damage: Physical Armor: 29
Bite 32; 2 × Claws 30 Mystic Armor: 14
Death: 240 Recovery Tests: 13
Unconsciousness: 220 Knockdown: 27
Wound Threshold: 41 Movement: 8/20 *
Adventure Award: Master Tier x 2 (Group)

Powers: Armored Scales (7); Disrupt Fate 25; Dragon Breath 25; Dragonsight 25; Dragonspeech 25; Fear 25; Karma (10); Karma Cancel 25; Lair Sense 20; Regeneration 10; Spells (Warden); Suppress Magic 8; Venom 25; Wingbeat 30

Skills: Dispel Magic 23; Spellcasting 23; Summon 23

Karma Points: 40

Loot: Magical items and a hoard of coins, gems, artwork, and other valuables worth around £300,000

* The second value is the dragon's flying Movement Rate.

Leviathan

DEX: 15 STR: 25 TOU: 25
PER: 12 WIL: 20 CHA: 15
Initiative: 16 Physical Defense: 25
Actions: 3 Mystic Defense: 20
Attack: 16 Social Defense: 15
Damage: Physical Armor: 25
Bite 30; 2 × Claws 25; Tail 15 Mystic Armor: 10
Death: 220 Recovery Tests: 12
Unconsciousness: 200 Knockdown: NA
Wound Threshold: 38 Movement: 4/15/10 *
Adventure Award: Master Tier x 3 (Group)

Powers: Armored Scales (6); Disrupt Fate 25; Dragon Breath 25; Dragonsight 25; Dragonspeech 25; Fear 25; Karma (10); Regeneration 10; Spells (Warden)

Skills: Dispel Magic 14; Spellcasting 14; Summon 14

Karma Points: 40

Loot: Magical items and a hoard of coins, gems, and other water-resistant valuables worth around £100,000

* The second value is the dragon's Swimming Movement Rate, and the third is Flying.

Eastern Dragon

DEX: 14 STR: 27 TOU: 24
PER: 28 WIL: 28 CHA: 25
Initiative: 26 Physical Defense: 24
Actions: 3 Mystic Defense: 30
Attack: 20 Social Defense: 28
Damage: Physical Armor: 22
Bite 38; 2 × Claws 35Mystic Armor: 16
Death: 200 Recovery Tests: 12
Unconsciousness: 559 Knockdown: 27
Wound Threshold: 38 Movement: 7/25 *
Adventure Award: Master Tier x 2 (Group)

Powers: Armored Scales (5); Disrupt Fate 25; Dragon Breath 30; Dragonsight 25; Dragonspeech 25; Fear 25; Karma (15); Lair Sense 25; Regeneration 13; Spells (Master); Suppress Magic 10

Skills: Dispel Magic 35; Spellcasting 35; Summon 35

Karma Points: 60

Loot: Magical items and historical artefacts, some from thousands of years ago, and a hoard of coins, gems, artwork, scrolls, books, and other valuables worth around £300,000

* The second value is the dragon's flying Movement Rate.

Feathered Serpent

DEX: 18 STR: 23 TOU: 23
PER: 22 WIL: 25 CHA: 25
Initiative: 23 Physical Defense: 23
Actions: 3 Mystic Defense: 27
Attack: 23 Social Defense: 24
Damage: Physical Armor: 20
Bite 30; 2 × Claws 28 Mystic Armor: 15
Death: 200 Recovery Tests: 11
Unconsciousness: 175 Knockdown: 23
Wound Threshold: 35 Movement: 7/22 *
Adventure Award: Master Tier x 2 (Group)

Powers: Armored Scales (5); Disrupt Fate 25; Dragon Breath 25; Dragonsight 20; Dragonspeech 20; Fear 20; Karma (12); Lair Sense 20; Regeneration 10; Spells (Warden); Suppress Magic 10; Venom 25; Wingbeat 23

Skills: Dispel Magic 28; Spellcasting 28; Summon 28

Karma Points: 48

Loot: Magical items and a hoard of precious metals, gems, and other valuables worth around £300,000

* The second value is the dragon's flying Movement Rate.

Hyrdofeay

Pronounced "hear-doh-fee-ay", with the stress on the second syllable, and properly spoken with something of a West Anglia accent, Hyrdofeay proclaims himself the Guardian of the Thames and Thames Basin. His colouration matches that of the river, which means right now he's a purulent, slightly iridescent brown flecked with peculiar shades of yellow, and quite irked about it. He's about the size of a pair of double-decker buses laid end to end, which, coupled with his Fear aura, produces an appearance sufficiently off-putting to discourage all but the most determined visitors.

When he takes mortal form, he prefers that of a tall, elegant human, clean shaven, with skin the same brown as his scales and hair the iron-grey of the Channel. (He does not advertise the fact that he can actually control his skin and hair colour, as well as his race and gender, in casting a Transform Self, as can any dragon.) It was in this form, and dressed in a bespoke Savile Row that cost more than a baronet's household budget, that he addressed Parliament on 20 July 1879, briefly discussing the state of the Thames in highly pejorative terms, and advising Parliament that he expected them to do their duty.

The previous day, Lord Sedgmore had responded to Hyrdofeay's written summons to a joint session in the Commons with what was perhaps an overly tart reply that only the sovereign could call a joint session and then only in the Lords. Hyrdofeay turned up at Lord Sedgmore's London townhouse in full draconic form. He gave the household staff three minutes to evacuate the building, then levelled it with a single blast of dragonfire. After containing the blaze magically so that it did not spread to the neighbourhood, he gave each member of the staff a purse of a hundred guineas as recompense for the loss of their personal belongings, and noted that Lord Sedgmore could file suit against him in Chancery if he felt it appropriate. Lord Sedgmore did not.

A few of the more brazen backbenchers, however, and a clark of the chancellor's staff who had not previously been thought to have quite so much spine, told off Hyrdofeay for daring to address Parliament without being on either the electoral or tax rolls. The dragon left the Commons, went up to the top floor of Victoria Tower, took down the flagstaff, and informed Parliament by dragonspeech that he had established a residence. A few days later, Mr. Fairchild paid him a social call, then informed Parliament of his own opinion, that while the Knights of the Grail could dislodge the dragon, the destruction of Victoria Tower and the loss of the archives of Parliament, still being reconstructed after the 1834 fire, would be a near certainty. Since then, Queen Victoria has not been able to make a proper entrance to the House of Lords, as the Sovereign's Standard cannot be raised over Victoria Tower. She has made her displeasure with Parliament over this breach in tradition known.

Hyrdofeay has since bought property, including a townhome in Holborn, gained the liberty of the City, retained a highly reputable accounting firm to make sure that all appropriate taxes are paid, and filed proof of his residency within the boundaries of Londinium (requiring the clark's office to bring in, with some discomfiture, a Catholic priest to translate the document's Roman-era Latin). He still won't let anyone into the top floor of Victoria Tower, and takes up residence there whenever Parliament is in session. His investments tend to be either property along the watercourses of London and its surrounding region, sometimes with the goal of squeezing out tenants he finds objectionable, or firms engaged in improving the quality of the Thames and its tributaries. His authority apparently does not extend out past the estuary, as he has shown no interest in the Channel, once commenting in passing those waters were "her problem", but declining to specify who he meant.

The aristocracy has added him to the invitation lists, albeit with some trepidation, and in return the dragon has organised a charity gala of his own, benefiting the Sewer Workers' Relief Fund. While he has not snubbed anyone from his list, those engaged in business activities at cross purposes with those of the dragon find their invitations suggesting a markedly higher donation to the charity. An excellent dancer, a wine and art connoisseur with encyclopedic knowledge of the fields, and a gifted conversationalist, Hyrdofeay has acquitted himself magnificently on the social stage, the only whiff of scandal being the protégé he has recently taken, a young woman from a mining family in Cornwall whom he has raised from a Parliamentary page to something of an assistant and representative. Tamsin Quick has proven herself a fast learner, but her origins are still held against her by some of the older guard.

Those who have gotten to know him describe his sense of humour as arch and acerbic, his fashion sense as rivalling that of Brummel, and his business sense to be as ruthless and cold-blooded as one might expect. Anyone with news of particular interest, a business deal that would advance his aims, or an introduction to an exclusive tailor, can get an appointment with him and might actually emerge only slightly shaken. Those who waste his time consider themselves lucky to survive the encounter. Hyrdofeay very rarely resorts to physical violence, noting that generally putting one head up on a stick is sufficient warning to all others, but his sarcastic disapproval is caustic enough to take off skin in broad strips. Don't ask for his attention without proper cause.

Draconic Form

DEX: 22 STR: 30 TOU: 29
PER: 27 WIL: 27 CHA: 25
Initiative: 25 Physical Defense: 32
Actions: 5 Mystic Defense: 40
Attack (8): 30 Social Defense: 37
Damage: Physical Armor: 31
Bite (11): 41; 2 × Claws (13): 43Mystic Armor: 34
Death: 719 Recovery Tests: 14
Unconsciousness: 603 Knockdown: 30
Wound Threshold: 44 Movement: 7/24 *
Adventure Award: Master Tier x 3 (Group)

Powers: Armored Scales (9); Disrupt Fate (5): 32; Dragon Breath (12): 27; Dragonsight (7): 34; Dragonspeech (6): 31; Fear (7): 32; Karma (18); Karma Cancel (6): 33; Lair Sense (7): 34; Regeneration (3): 30; Spells (Master); Suppress Magic (5): 32; Wingbeat (9): 39

Skills: Dispel Magic (12): 39; Durability (15); Spellcasting (13): 40; Summon (10): 37

Karma Points: 72

Loot: Magical items and historical artefacts, some from thousands of years ago, and a hoard of coins, gems, artwork, and other valuables worth around £25,000,000 **

* The second value is the dragon's flying Movement Rate.

** The 1880 UK Defense Budget was approximately £22m.

Y Ddraig Goch

For the non-Welsh speaker, the pronunciation of thes name will likely cause some consternation. The exact tones don't properly translate to English, but the closest phonetic approximation is something like "Ah Thraig Gok". Even this has its failings. The sound from the Y is not heavily emphasised, more of a subtle tone that tends to be pronounced quickly without much pause before saying the rest of the name and inded, in many writings is left out entirely). The sound produced by a "dd" is not quite the same as that of a full "th", but is sort of a mix with a standard "d" noise, with more emphasis on the former. The g at the end of Ddraig also tends to trail off a bit in the pronunciation, almost leaving a bit of an air gap between it and the next g, which has a much sharper start. Finally, the "ch" at the end of the Goch is produced more with a sort of gutteral sound at the back of the throat. Those wishing for an easier reference could simply refer to him as "The Red Dragon", since that is the translation, though if meeting with him and wanting to make a good impression, it's best to actually learn to pronounce his name properly.

Save yourself embarrassment; find a proper Welshman, buy him a proper beer, and ask him to teach you.

– Djehuty Jones

The Welsh dragon's awakening surprised quite a lot of people who thought he was just a handy symbol from the Ninth Century Historia Brittonum, representing the indigenous British tribes the Saxons failed to conquer and who became the Welsh. In early 1880, Frank and Stanley Elmore, having invented a new flotation process for extracting copper from ore, had installed their prototype equipment at the Sygun mine on the Afon Glaslyn, less than a mile downstream from

Llyn Dinas and the hill of Dinas Emrys. The increased efforts of the miners, to bring up enough ore to feed the new machinery, drove a new shaft northward, coming up against a wall of basalt that shouldn't have been there, geologically speaking. Upon setting off a blasting charge, the miners breached the hibernation lair of Y Ddraig Goch. The abruptly awakened dragon spared the miners, who spoke Welsh, but killed the Elmore brothers and their English-speaking engineering crew, then took up residence on Dinas Emrys for the next few weeks. He took some of the miners into his employ straight away, and had them haul up enough of his hoard from his hibernation chamber to purchase the Glaslyn valley up through the north end of Llyn Dinas. Months later, he settled out of court with the heirs of the Elmore family, agreeing to a blood price in gold for the fatalities, and buying the flotation process from the family along with the mine. Since then, Y Ddraig Goch has made a considerable sum selling the process to the Mormons in Deseret, and to South American copper mining concerns in Chile and Peru.

Toward the end of the year, Y Ddraig Goch moved to Cardigan Castle in Aberteifi, buying the property outright from the Bowen family. (Coincidentally, Cardigan Castle is right across Green Street from a pub called the Grosvenor.) He has granted a limited number of interviews with journalists, providing they speak fluent Welsh, in which he has stated categorically the White Dragon, his ancient rival, is long since dead, and that his principle concerns are the advancement of modern Welsh people and their culture. Among other proclamations, he has demanded that the Eisteddfod be returned to Cardigan, as the first Eisteddfod was held there and the tradition should come home. While this has not yet happened, the National Eisteddfod Council is considering accepting the dragon's offer of hosting and relocation of the National Eisteddfod from Denbigh. Y Ddraig Goch has also established a genealogical research centre at Cardigan, in the old guild hall at Pendre and Priory Streets, and is building an Engine facility backing up to it on Upper Mwldan, where ancestral records will be stored in algorithmic form for more efficient correlation and searching.

> *"What he doesn't say is what he's doing with the old records. Y Ddraig Goch, like all dragons, holds a grudge for centuries. He's been searching out the descendants of Vortigern and Lluyllyn the Last and providing them with coin, and talking about restoring the old ruling line of Gwynedd. The lines of Lludd, king of Britain, and Llefelys of France have been diminishing of late, with no solid evidence to back the idea that the dragon is taking vengeance on their descendants for the mead pit, but there it is."*
>
> ***– Owain ap Gruffydd of Llandeilo***

Y Ddraig Goch, as his name suggests, is red from nose to tail, dark crimson over his back and sides, brilliant scarlet underneath. The joints of his wings and legs are a dark blood-red, and he has points like a cat of the same hue, markings around his eyes, along the sides and backs of his ears, and the edges of the spines down his neck. He rarely takes human form, but when he does appears of solid Welsh stock, a bit round of face, with dark eyes and hair, and an olive cast to his complexion. Like other dragons, when in human form he dresses very well indeed, in bespoke suits or traditional Welsh jacket, breeches, woollen stockings, and a low-crowned black hat with a wide, floppy brim. He'll always have a splash of red about him somewhere, his neckerchief or tie or hat ribbon. In person, he's charming, well spoken and more widely read than one might expect, although most conversant with Welsh literature, and likely to threaten more in subtext than directly. He sings

high tenor, and has been known to join the crowd at the Grosvenor if they're singing in Welsh.

Draconic Form

DEX: 20 STR: 28 TOU: 25
PER: 25 WIL: 26 CHA: 27
Initiative: 22 Physical Defense: 29
Actions: 5 Mystic Defense: 37
Attack (8): 28 Social Defense: 40
Damage: Physical Armor: 28
Bite (10): 38; 2 × Claws (11): 39 Mystic Armor: 31
Death: 617 Recovery Tests: 12
Unconsciousness: 562 Knockdown: 30
Wound Threshold: 38 Movement: 9/23 *
Adventure Award: Master Tier x 3 (Group)

Powers: Armored Scales (8); Disrupt Fate (8): 34; Dragon Breath (11): 26; Dragonsight (11): 36; Dragonspeech (9): 36; Fear (7): 34; Karma (22); Karma Cancel (6): 32; Lair Sense (7): 32; Regeneration (5): 30; Spells (Master); Suppress Magic (7): 33; Wingbeat (8): 36

Skills: Dispel Magic (14): 40; Durability (15); Spellcasting (15): 40; Summon (8): 34

Karma Points: 88

Loot: Treasure worth several million pounds in coins, gems, jewelry, artwork, plus priceless historical artefacts like the sword of Vortigern and the crown of Llwyllyn the Last.

Rules

* The second value is the dragon's flying Movement Rate.

Alamaise

Little is known of the Great Dragon Alamaise before his arrival in Alsace-Lorraine a year after the opening of the Rabbit Hole, almost to the day. He flew into Strassburg carrying a chest nearly the size of a hogshead, landed in the street in front of the main Strassburg branch of Société Générale, transformed into a tall red-headed human man in an expensive suit, and strode into the bank. By the end of the day, Alamaise owned property in all three districts of Alsace-Lorraine, including an entire block from Place Gutenberg to the Rue de Miroir and from Rue Gutenberg to the Rue des Serruriers. He retained the staff of the hotel, moved into its top floor, paid off the other guests to relocate to other hotels, and closed all the businesses in the adjoining buildings. What else he has bought or invested in, with the estimated half-ton of gold and gems in the chest, remains a closely held secret. Those who try to investigate are warned off politely. Once.

Since then, Alamaise has brought in contractors and building materials, and engaged on a grand remodelling, turning what was a four-story hotel and a few adjoining buildings of shops on the street level and apartments on the upper floors into a residence to rival the planned Kaiser's palace across the canal to the north. The building has been enhanced considerably by magic, presumably by the dragon, with the stone walls in the completed sections being fused into solid blocks, in turn fused to the foundations, which themselves have been merged into the bedrock they rest upon. Likewise, all wooden beams and framing have been merged into single units, rendering nails and screws and pegs merely decorative. Alamaise maintains a considerable staff in the Hotel Gutenberg wing, including his social secretary, his legal department, and the personal banker assigned to him by the Société Générale.

"The fusion of the walls has done much more than strengthen the building against assault. By growing the stone together and into the bedrock, Alamaise has effectively made the building an extrusion of the Earth itself, as if it had been grown up out of the bones of the planet. This in turn has rendered the building astrally opaque. One can no more see through, or pass through, the walls in the astral plane than in the physical. He has also bound elementals of various sorts as guards. Unless one is fireproof and able to withstand being pummelled by fists of solid rock, I can't recommend attempting any sot of intrusion."
– Herr M. Detweiller, Eastern Prussian Arcane Society

In his draconic form, Alamaise has gold and red scales, like a sunset, and brilliant yellow eyes that glow with a fire of their own. His tail carries spines five feet long at the tip. Notably, he has a pale streak down his chest, from the base of his neck on the right to nearly the top of his right foreleg, where the scales are smaller and lighter in colour. He carries himself with substantial pride and arrogance, even for a Great Dragon, obviously considering all others beneath him and barely worthy of his notice. He seems to have a particular disdain for elves, has none on his staff, and has notably snubbed a few well placed elven aristocrats, costing him a bit of social credit – but no one is brave enough to strike him off their invitation list.

His preferred form when shape-shifting is the tall human man seen at his arrival in Strassburg, clean shaven, skin lightly tanned, hair red as fire caught back in a fashionable short ponytail. While he dresses very well indeed, his suits are cut conservatively, of dark fabrics, and carry less embellishment than might be expected. He's not seen out in public often, only when his business or the social calendar demands it, and prefers, so it is said, to dine alone, although his table manners have been noted to be excellent at the banquets he has attended.

The true nature of his business in Alsace-Lorraine remains to be seen. As previously stated, he and his staff actively discourage enquiries. It has been noted, though, that a great many crates have been delivered to the Strassburg palace bearing shipping marks from foreign lands, and the taxes and tariffs on those generally list them as "antiquities" or "scientific specimens". Quite a lot has come from Greece and Russia, but items from China, India, Poland, and Morocco have been seen. As well, he has visited the museums, and the university and private libraries, in the region, sometimes casually browsing, other times going to see a specific volume or painting or sculpture. The fact he has settled in a territory recently seized by the Prussian Empire from France, and bought property for a residence in the German part of the city, but chosen a French bank to handle his funds and act as his financial representative, has puzzled quite a few. Exactly what his long term plans are is anybody's guess.

Draconic Form

DEX: 29 STR: 38 TOU: 42
PER: 31 WIL: 37 CHA: 29
Initiative: 29 Physical Defense: 43
Actions: 6 Mystic Defense: 45
Attack (15): 44 Social Defense: 43
Damage: Physical Armor: 54
Bite (18): 56; 2 × Claws (15): 53 Mystic Armor: 56
Death: 1138 Recovery Tests: 23
Unconsciousness: 977 Knockdown: 38

Wound Threshold: 73 Movement: 12/28 *

Adventure Award: Master Tier x 6 (Group)

Powers: Armored Scales (12); Disrupt Fate (13): 50; Dragon Breath (14): 29; Dragonsight (14): 45; Dragonspeech (13): 42; Fear (15): 44; Karma (28); Karma Cancel (12): 49; Lair Sense (14): 45; Regeneration (11): 53; Spells (Master); Suppress Magic (12): 49; Venom (12): 49; Wingbeat (12): 50

Skills: Dispel Magic (15): 52; Durability (15); Spellcasting (15): 56; Summon (15): 56

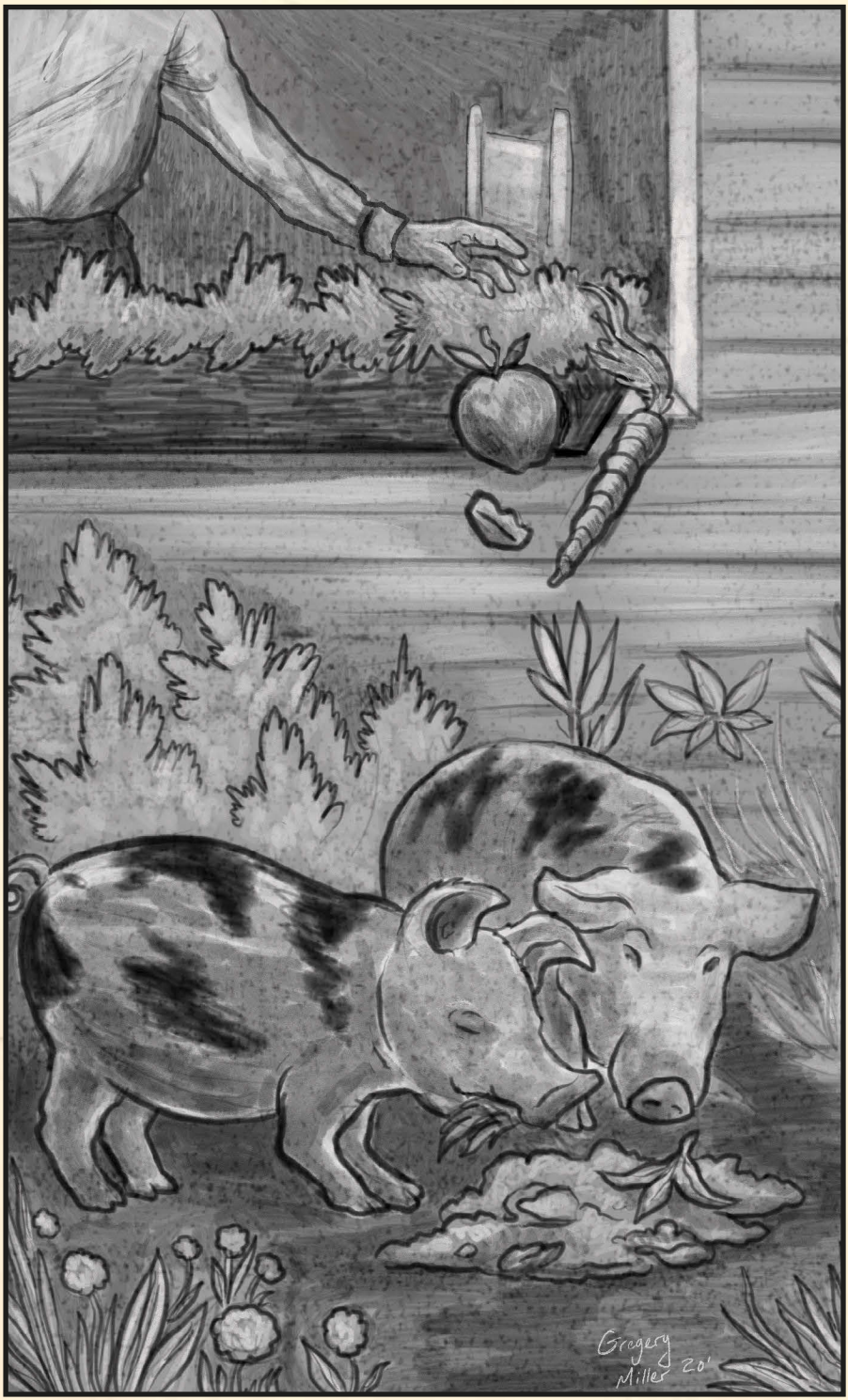
Karma Points: 112

Loot: Treasure worth millions in coins, gems, jewelry, artwork, ancient manuscripts, and real estate, scattered across many countries. Artefacts of previous civilizations as necessary to his intent.

Rules

Fireball Spit: Alamaise may use his Dragon Breath to spit a fireball, with a range of 100 yards and causing a Step 52 explosion at the target point, with anything surviving being set ablaze at Step 12. Make a Dragon Breath Test against the Physical Defense of the target for accuracy, and roll extra successes to the Effect Test at +2 Steps per success. A miss places the explosion a number of yards away in a random direction equal to the difference between the Test result and the target's Physical Defense. On a Rule of One result, the fireball is not launched. This costs the dragon 10 points of Strain per attempt.

* The second value is the dragon's flying Movement Rate.


Gregory
Miller 20

1879 GAMEMASTER'S GUIDE

5

Death and Desease

"Madnesses of the past are not petrified entities that can be plucked unchanged from their niches and placed under our modern microscopes. They appear, perhaps, more like jellyfish that collapse and dry up when they are removed from the ambient sea water."

– H.C. Erik Midelfort, A History of Madness in Sixteenth-Century Germany

This chapter delves into some of the horrific, grotesque, and far too commonplace ways the Victorian era killed people. From poisons in the food supply to diseases with no cure, life at the end of the Age of Steam and the beginning of the Age of Electricity wasn't much improved from Hobbes' definition of life in the Middle Ages.

A Terrible Miasma

By 1880, Leeuwenhoek had been gone for a hundred and fifty years, John Snow and Henry Whitehead's investigation of the Broad Street cholera epidemic was twenty-five years in the past, and

Pasteur's process had been under patent and in commercial production for fifteen years. Even with all of that, some people still gave credibility to the idea that disease was caused by the miasma, or foul vapours emitted from garbage, decay, and poor sanitation. There are those for whom no amount of evidence will suffice. It only takes a few such in Parliament to seriously impede the progress of the Empire. HRH Albert, God save him, has begun to show signs of weariness after spending much of his life arguing for the advancement of science. Without him, the Empire surely would have stagnated and been surpassed long ago.

On the other hand, belief in the miasma theory has driven a good deal of improvement in London and other cities. The necessity of protecting the public from foul vapours has led to considerable funding for sanitation projects. Joseph Bazalgette was brought in, and Parliament allocated £2.5 million (about £300 million in 2018 currency) of public funding to create a network of sanitary sewers, routed to six main interceptor lines, and from there out to the estuary, so London's sewage could be flushed out to sea on the tide instead of dumped straight into the Thames. Mr. Bazalgette personally reviewed every plan, and still oversees the Metropolitan Board of Works as its chief engineer. As a result of his constant doubling of capacity estimates, London's sewage system should be able to handle the growth of the city far into the next century.

Other cities have not been so fortunate as to have someone willing to work themselves to exhaustion for the public good, or the funds available. Paris has run into severe infrastructure troubles on top of resource shortages, the entire city honeycombed belowground with crypts and mining galleries that go back before the Roman occupation of Gaul. Berlin simply brought in the military and set the soldiers to work digging, a typical Prussian solution of putting more men on the job. As long as their economy does not falter, the German approach of locating the funding when the bills come due may very well carry them through. New York's efforts have bogged down both figuratively and literally, mired in the city's political corruption and having to drain a number of literal swamps the city has been built atop of, so that the pipes can rest on stable foundations.

Sewage of course is not the only challenge to public health. Garbage collection and the disposal of same has been a problem for every city since the time of the Pharaohs. The British habit of keeping a pig in the garden, and feeding it the table scraps and kitchen waste, takes care of one problem, but creates another. A pig out back of every house plus the horses going up and down the street in front keeps the dung-carts on the move, all day, every day. The refuse collectors, known in Britain as dustmen, stay similarly busy, as they do in all cities around the world, trying to stay ahead of the population and keep the environment liveable. They don't always succeed.

Just riding the bus can be risky. Bad enough getting in and out requires climbing past everyone else, the potential of a poke with an umbrella, a jab with a cane, treading on someone's foot. The knifeboard doesn't even have steps going up to it, just a ladder if the gentlemen (ladies don't sit up there) are lucky, cleats nailed to the back of the bus if they're not. Only the recently introduced garden-seat buses, with benches like those found in the parks set transverse instead of longitudinal, and modesty boards around the edge of the roof to keep people looking up a lady's skirt, have steps, and those are a tight spiral of cast iron and difficult to navigate in a crinoline. But then there's finding a seat, good luck, most men won't rise for women on the bus, and nobody gives up a seat to the elderly, especially if they're obviously of lower class than those already seated. In that sort of crowding, every time someone coughs, everyone else risks tuberculosis, or whatever other communicable disease is going around this week.

Infectious Diseases

Speaking of diseases, let's talk about a few that might have been mentioned in passing but not covered before.

Diphtheria

Type: Debilitation
Onset Time: 2 to 5 days after exposure
Effect Step: 11
Duration: 2 weeks

Usually spread by physical contact, but in crowded conditions as an airborne infection, diphtheria causes a low fever, sore throat, and fatigue. As it progresses, the disease destroys tissue in the nose and throat, which accretes in a greyish pseudomembrane. This causes a croup-like cough, trying to dislodge the membrane, which can only be done surgically. If the membrane extends to cover the trachea, the victim will be unable to breathe. Tracheostomy has been successful in approximately 25% of these patients. Further symptoms may also include swelling of the neck, rapid heartbeat, kidney failure, and loss of the blood's ability to clot, due to the toxins released by the disease organism. Paralysis of facial, head, or neck muscles may also occur. No effective medication has yet been found that will treat or prevent diphtheria, although recent experiments in developing an antitoxin from horses exposed to the disease have been promising. Globally, the fatality rate is 50%.

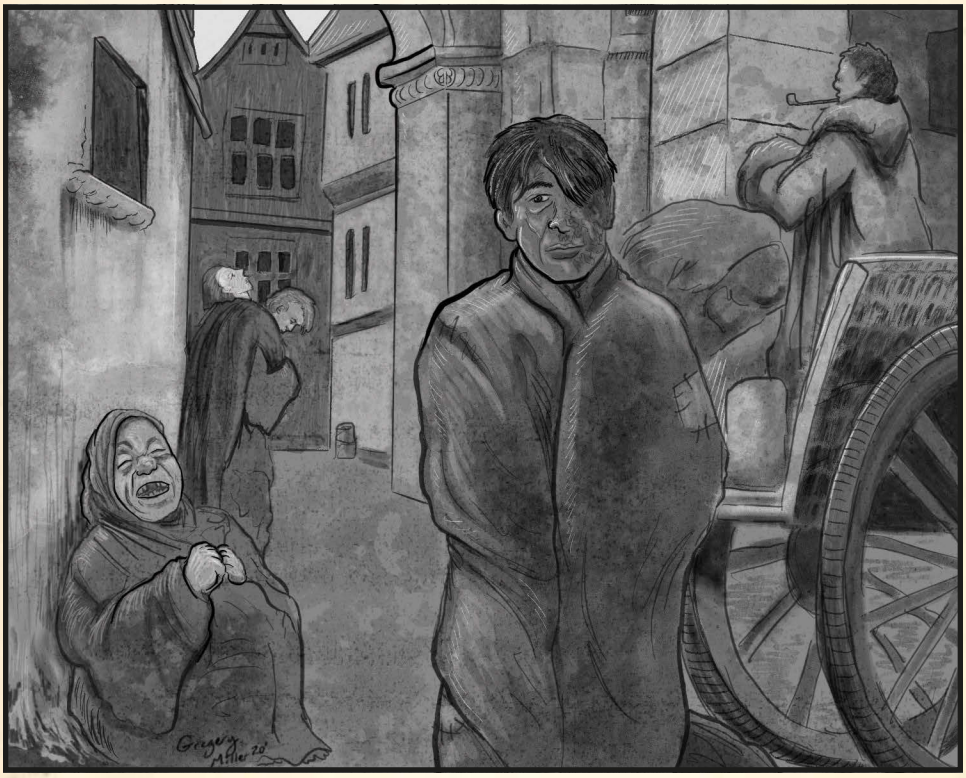
Effect: On exposure, make a Toughness Test against the Effect Step of the disease. On a failure, roll 1d4+1 to determine how many days before symptoms begin. The individual becomes infectious within the hour, capable of spreading the disease before symptoms begin. At the onset of symptoms, the victim becomes Fatigued. Each day, the victim makes an opposed Toughness Test against the disease Effect Step. If the victim succeeds, the disease's Effect Step is decreased by 1. A decrease to zero cures the victim and allows recovery from Fatigue. If the disease succeeds, the victim takes its Effect Step in damage, and the Effect Step is increased by 1, plus 1 for each extra success scored. If the victim takes a Wound, they develop one of the additional symptoms listed. Difficulty in breathing is automatically the second additional symptom, and blockage of breathing is the fourth. These Wounds may be healed by the usual mechanism of spending the day's first Recovery Test. Performing a tracheostomy requires a Physician Test against the Effect Step of the disease, at a penalty of -1 Step per Wound the victim has taken. A failure causes an additional Wound, and incurs an extra Effect Test from the disease. On a Rule of One result, the patient dies.

Leprosy (Hansen's Disease)

Type: Chronic
Onset Time: Unknown; individuals have developed symptoms up to 20 years after contact with victims
Effect Step: 9
Duration: Ongoing

While the causative agent (Mycobacterium leprae) was discovered by Dr. G. H. Armauer Hansen of Norway in 1873, thus granting the disease his name, leprosy remains one of the oldest and most poorly understood diseases of Mankind. Historically, lepers have been required to segregate themselves from the population, and to give warning on their approach, based on an assumed high risk of contagion. This has been shown to be erroneous, as prolonged exposure to leprosy patients by caregivers has not resulted in the sort of transmission rates that would justify the pariah status

assigned to victims of the disease. Poverty-ridden areas have a higher incidence of leprosy, possibly due to overcrowding encouraging the spread of disease, but this does not differentiate leprosy from any other contagion. Red squirrels in Europe and armadillos in the Americas have been found with strains of M. leprae also found in humans, and active cases of the disease. Whether these animals are vectors, or the origin of the illness, or simply other victims, has not yet been determined. Given that no cases of leprosy have been found in the records of Native American tribes prior to contact with European settlers, transmission from human to animal is most likely in regard to the armadillo, but how such transmission might have occurred remains a mystery.



Initial symptoms may be mistaken for neuropathy due to diabetes or injury, manifesting as numbness, increased and painful sensitivity, or tingling in the hands and/or feet. Skin lesions, initially numb to the touch and insensitive to temperature, and oddly or under pigmented, follow. As the disease progresses, these lesions may become raised, reddened, or ulcerated, and may be mistaken for the rash following an insect bite or contact with irritants such as poison ivy. Long term, the hands and feet may become clubbed as secondary infections cause cartilage to be resorbed. Nerve damage and insensitivity to pain may result in secondary injuries, which in turn may lead to infection and poor healing.

Treatment with white mercury has shown no more benefit than it has with syphilis. A temporary remission of symptoms may be obtained, but at the cost of mercury poisoning, and the symptoms will return as soon as the treatment halts, the disease merely repressed and not

cured. Thus far, none of the known antifungals have been shown effective against Hansen's disease. Prognosis for victims is poor, and treatment remains palliative, consisting of management of symptoms and behavioural training for self-monitoring. Ostracism by society and isolation by law remains common throughout both Western and Eastern cultures.

Mechanics: Development of an active case of leprosy should be discussed between player and Gamemaster, as the social stigma and slow erosion of an incurable disease will significantly impact the character's playability. Each game week, a Disease Effect Test is made against the character's Toughness Step, and the character takes Damage equal to the result. This Damage may be healed normally. For each Wound, the player puts a tick mark next to a physical Attribute (Dexterity, Strength, or Toughness), as they would for significant use of a Skill. When three tick marks accumulate, the tick marks are erased and one point of that Attribute is permanently lost. One tick mark should be then be put next to the Wound Threshold. The character ignores Wound Penalties equal to the number of Wound tick marks accumulated, but takes an equal number of points of Strain for each Action while Wounded, to reflect their insensitivity to pain. Wounds taken from leprosy Effect Tests require one week to heal, with a Recovery Test spent each day. Any day a Recovery Test is not spent takes one Test off the accumulated count. If the character's status as a leper is known, they will be treated as being a number of Social Levels below their actual SL equal to the number of Attitude steps below Awestruck of the GMC toward them, which may put them into negative Social Level (see Infamy in the 1879 Players Guide, pg.165). For example, a GMC who had previously been Friendly toward the character would treat the character as being of 2 Social Levels lower due to their disease. The GMC may also become Unfriendly at the discretion of the Gamemaster.

Picardy Sweats

Type: Debilitation
Onset Time: 1 to 6 hours after exposure
Effect Step: 14
Duration: 2 to 3 days

A recurring illness of unknown origin, the Picardy Sweats originally appeared in the Picardy region of France in 1718, hence the name. The symptoms are similar to the English sweat, which has not been seen since 1551. During the onset time, the patient may experience chills and shivering, dizziness, pain in the neck, shoulders, and upper back, and a sudden onset of exhaustion. After the onset time has passed, the disease progresses to a high fever, a purulent rash normally confined to the face and upper torso but sometimes spreading to or appearing in patches on other parts of the body, and bleeding from the nose. In more severe cases, headache, delirium, intense thirst, and tachycardia may appear. Unlike the more common relapsing fever, there is no scab or targeted rash to indicate a tick bite. While the method of transmission remains unknown, the Picardy Sweats are highly contagious. Anyone having direct contact with a victim risks infection.

Mechanics: Roll 1D6 for the onset duration. The victim is immediately Fatigued and remains so until the disease has passed. Make a Disease Effect Test against the victim's Toughness Step every three hours, with a minimum of one Test. The victim takes an amount of Strain equal to the Test result. Once the onset has passed, make an opposed Effect Test against the victim's Toughness Step every 4 hours. If the disease succeeds, the victim takes the Test result in Strain. If the Test scores more than one success, make a second Test for actual Damage taken by the victim. If the victim succeeds, the disease Effect Step is reduced by 2. When the disease Effect Step reaches 0,

the victim is cured and no longer contagious. On a Rule of One result for the disease, the victim has shaken it off and may recover Strain and Damage taken as normal. On a Rule of One result for the victim, one point is permanently lost from the Toughness Attribute. Both Strain and Damage caused by the Picardy Sweats can cause Wounds, reflecting the lethal nature of the illness. Every third Wound causes the permanent loss of one point from the Perception or Willpower Attribute, at the player's choice. One dose of aspirin every four hours reduces the Disease Effect Step by -4 Steps, with a minimum Step of 1. No other treatment is known at this time. Anyone treating a victim, or spending more than half their time in proximity, must make a Toughness Test against the victim's current Disease Effect Step every four hours to avoid infection.

A Toxic Environment

As if all of this wasn't bad enough, people in the late 1800s went out of their way to make their world more dangerous. Some of it was done because they didn't understand the risk, and some because their enthusiasm for a new thing ran ahead of their common sense. Sometimes, it just came down to the desperation to maintain enough of a profit margin to keep the business afloat, or greed for more profit at the cost of customer safety. All of this combined to produce some very dangerous materials, risks in the food supply, and occupational hazards that in the modern era would shut down the factory for decontamination.

Materials and Comestibles

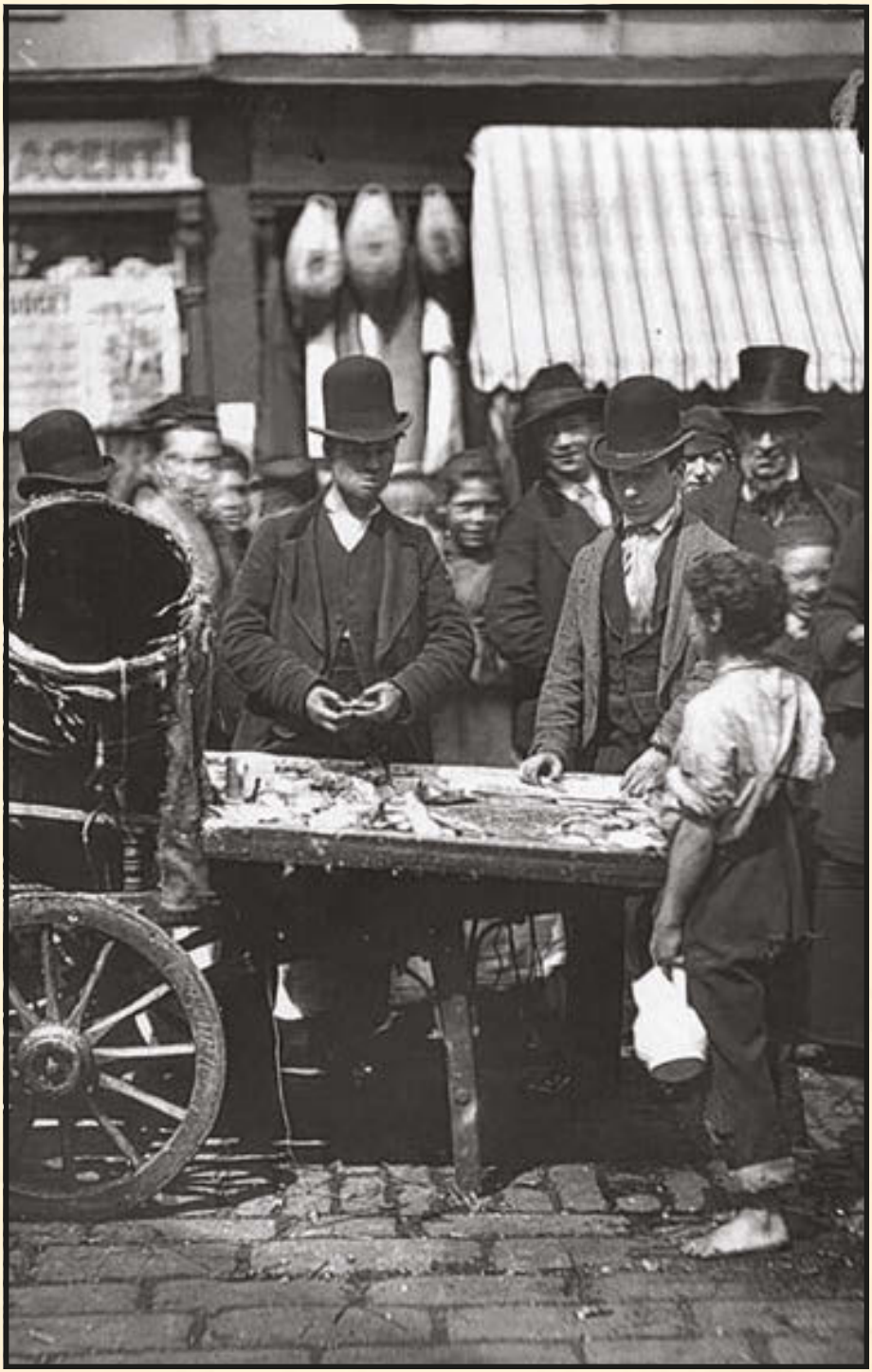
Let's take a little stroll through the marketplace, and note what should be avoided. Hint: all of it.

Arsenic

Poison Type: Damage
Effect Step: 12
Onset Time: 1 hour
Duration: 1+ hours

A poison known for getting rid of rats and troublesome lodgers, arsenic has long had a place in the wainscoting and the tea pot. One would think with it being so well known for its toxicity, arsenic would be a controlled substance, one that people would take some sort of care with. Far from it; arsenic is the asbestos of the 1880s, dozens of household uses and it's in everything. Got bedbugs? There's an arsenic laundry soap for that. Just be sure to rinse thoroughly, don't want any left in the linens. Want a pop of colour in the parlour? Arsenic makes a lovely green dye, used in wallpaper. The fumes aren't really that bad, but do keep the children from licking the walls. Oh, and it takes so well to fabric, too, but a high collar and proper undergarments will be needed to wear that green ballroom gown safely. Don't want the dye leaching into one's skin. Skin blemishes? Nibble an Arsenic Complexion Wafer. It may not get rid of the pimples, but at least one will be fashionably wan.

The ease with which anyone could obtain arsenic, among other poisons, of course contributes to the number of poisonings occurring each week, both accidental and not. The official numbers can't be trusted, nobody's going to report a poisoning that benefited them, regardless of whether



they had anything to do with it. The rules of evidence are a bit thin, especially down on the bottom end, and suspicion of being a poisoner can be enough for a one way ticket to the Gruv and the Hornblower's Hill penal settlement. The odds of getting away with it were actually pretty high for a long time. With the symptoms being so very much like cholera, it's not until well after Dr. Snow and Rev. Whitehead carried out their crusade that people really started looking at those who died of gastric complaints. Imagine sending a child, a girl of barely eight years, off to the chemist's shop for thruppence worth of arsenic soap. Does the chemist worry they're selling a deadly poison to a child? Is there at least a book to be signed? It is to laugh. That should take care of the bedbugs, says the chemist, pats the child on the head, and sends her off with her toxic burden.

Small wonder Mary Robson was able to pour a cup of tea for so many people that annoyed her. Twenty-one, they thought, or at least that's all they were able to document.

Mary Ann Cotton, she's dead and she's rotten
Lying in bed with her eyes wide open.
Sing, sing, oh what should I sing?
Mary Ann Cotton, she's tied up with string.
Where, where? Up in the air.
Selling black puddings, a penny a pair.

Mechanics: Arsenic initially causes vomiting, abdominal pain, bloody diarrhoea, headache, and confusion. Make an Effect Test against the victim's Toughness Step on exposure, as normal, to see if the poison takes effect. If this Test succeeds, the victim takes the Test result in Damage, is Fatigued, and takes an extra -1 Step to all Perception and Willpower Tests and all Tests based on those Attributes. The poison lasts for one hour plus one additional hour for each extra success on the initial Test. Each additional hour, make another Effect Test for additional Damage suffered. There is no antitoxin or chelation for arsenic, although magic may be able to help. The Fatigue and Step penalties last until 8 hours after the final Effect Test, or until all the Damage and Wounds caused by the poison are healed, whichever comes last.

Celluloid

The wonder material of the era, the first true plastic, flammable, sometimes explosive, celluloid can be found in hundreds of forms throughout the world. Alexander Parkes originally named the compound of camphor and nitrocellulose as parkesine. Yes, nitrocellulose is also known as guncotton, an explosive used in ammunition. Parkes went bankrupt trying to scale up the process. When John Wesley Hyatt and Daniel Spill formed competing companies to produce the material in America and Britain respectively, people rejected the old vanity title and adopted the American name of celluloid. The cheap plastic could be formed into the likeness of much more expensive materials such as tortoiseshell and ivory, allowing women who could not afford the rare natural materials to own brooches and combs that at least looked expensive. In a less modified form, celluloid made for white detachable collars and cuffs that could be rinsed in cold water each night to remove grime or ink, leaving the lowly clark's sleeves ready for the next day's calculations. Unfortunately, as celluloid ages, it decomposes and becomes more likely to burst into flame when jostled unduly. The compressed celluloid of a billiard ball tends to detonate in more spectacular fashion, resulting

in at least one gunfight in Silver City, Nevada, that started when the cue ball exploded on the break. Safer materials are being researched. Until they come onto the market, though, one should be careful to enquire as to whether or not the billiards are ivory.

Mechanics: When an item made of celluloid takes damage over its Critical Threshold, it catches fire and burns at Step 4, taking damage itself as well as doing damage to its surroundings, until its Barrier Rating is exhausted. If the item takes double its Critical Threshold or more in a single hit, it explodes, at a Step equal to its remaining Barrier Rating and with a blast radius of 5 feet. If no Barrier Rating or Critical Threshold have been assigned, assume both to be 4 for small objects such as decorative combs, 7 for medium objects such as hanging mirror frames, and 10 for large objects such as decorative folding screens. Compressed celluloid items, such as billiard balls, explode at Step 12 and, like dynamite, become much more prone to do so as they age. A freshly made celluloid billiard ball has a Barrier Rating and Critical Threshold of 12, but loses one point of Critical Threshold each month. After a year, a simple collision with another ball on the table is enough to set it off. The impracticality of carrying old billiard balls as grenades should be obvious.

Food Adulterants

We spoke of greed and desperation surrounding the profit margin above. Here's where it shows up the most readily. All manner of substances were chucked into the food supply to make it go farther, be more attractive to consumers, or just keep it on offer that one day longer.

Bakeries tend to be a primary example in most documentaries. The process of adulterating bread dough can be readily demonstrated, and the results compared to a proper loaf with ease. As the century progressed, the bakery was one of the last workplaces to be automated. This combined with the sharp rise in flour prices thanks to the rescinding of the Corn Laws drove the cost of producing a loaf of bread for sale so high that only the middle class and above could afford proper bread. The bakers started tossing in pretty much anything even vaguely flour-like that was cheaper. Alum, sawdust, chalk, you name it, if it would add bulk and weight to a loaf and stay down when someone ate it, they used it. The bakeries survived, most of them, some long enough to afford industrial mixers and chain ovens, and like everyone else make it up in volume. Those bakeries that couldn't crank up their production levels either got fancy, selling braided loaves and marzipan cakes and such to the high street trade, or went out of business entirely.

And that was just the bread. Meat, in the days before widespread availability of refrigeration, got treated with a wide variety of chemicals and a total lack of respect. If you were lucky, your butcher had a cold room in the basement, and only cut up what they thought they could sell of a day. If you were unlucky, or poor, or both, that meat may or may not have been today's butchering. If it didn't smell too bad to eat, you ate it, because it was what was available. Veg came in a bit better, generally brought into the cities before dawn and distributed to the shops and the pushcarts and the cress girls by daylight. It's hard to freshen up or disguise a wilted bunch of cress. Vegetarianism wasn't popular in Europe in those days, though. If you weren't from India, and you didn't eat meat, people wondered what sort of odd spiritual group you'd joined. Yes, the Seventh Day Adventists had it a bit rough. They were generally healthier for it, though, as was anyone who took a bit more care with their food supply.

Mechanics (Optional Rules): Anyone with a Social Level of 3 or better, attempting to eat food obtained from an SL 2 or SL 1 establishment, must make a Willpower (8) Test to not spit it right back out. After a week subsisting on what food is available at SL1 or SL2, SL3 and higher characters become Fatigued. This represents the lack of nutrition and the difficulty of digesting the non-food additives. Anyone from SL1 of SL2 attempting to consume food prepared to SL4 or SL5 standards must make a similar Willpower (8) Test, and must also make a Toughness (6) Test to handle food that is too rich for their system. Failing the Toughness Test brings the meal back up. After a week of being able to handle higher SL foodstuffs, SL1 and SL2 characters gain +1 Step on all Toughness Tests to resist disease, and for endurance, such as to resist being Fatigued.

The Corn Laws were protective tariffs, meant to shore up the price of domestic grain and ensure the profitability of British farms by keeping the price of imported grain artificially high, despite the ample supply that would have brought the price down. When the Famines struck, Parliament struck down the tariffs in what was meant as a humanitarian measure. The price of grain plummeted, and cheap bread became widely available. As imported grain flooded into the market, though, it knocked the legs out from under British grain farmers, who could no longer compete. It simply cost them too much to bring a crop to market. They let their agricultural labourers go. Some, the larger landholders who could raise the capital, bought tractors and other heavy machinery, and made a go of it, compensating in volume what they were losing on each hundredweight. The newly unemployed workers, having gone from nearly starving but at least having honest work, to outright starving with no work, flooded into the cities, giving the factories a ready source of cheap labour to fuel the Industrial Revolution. Some became Luddites, and destroyed farm machinery in the hopes of getting their jobs back. We all see how well that worked. And so cheap bread is why you have so many people starving on the streets in London.

– Djehuty Jones

Industrial Diseases

The concept of a safety and health department looking after British factories appears to have been completely foreign. Literally so, as the Prussians have such, what with worker resource losses having adverse effects on the efficiency ratings. The idea that dangerous machinery should be enclosed so it doesn't snatch people up by their shirt sleeves and rip their arms off, or that chemical fumes should be kept contained and contamination avoided, was for a long time (and to some extent still is) seen as expensive, something that cuts into the profit margin. If a factory worker gets cut into, well, another one can always be hired, there's a line at the door waiting for the next opening.

Caisson Disease

Type: Damaging
Onset Time: Variable; based on compression depth and decompression time
Effect Step: Variable, from 8 to 25
Duration: 8 Effect Tests

Poorly understood, but known to be related to atmospheric pressure and its effects upon the body, caisson disease was first named by Dr. Andrew Smith in 1869, project physician for the Manhattan to Brooklyn suspension bridge. The malady left Washington Roebling, chief engineer of the project, bedridden only a year after ground had been broken, and led to his wife, Emily Warren Roebling, becoming the first female field engineer of a major construction project in the Union. Over the course of building the two stone towers that bear the weight of the bridge across the East River, dozens of workers in the caissons, giant boxes made of fifteen feet of southern yellow

pine, fell ill after working in the compressed-air atmosphere at the bottom of the river. Eventually, a system of decompression time was worked out by trial and error, waiting chambers built adjacent to the airlocks that let workers into and out of the caissons, and incidents of caisson disease declined. Dr. Smith wrote a paper on the phenomenon, and co-authored multiple others with physicians and physicists around the globe, properly naming the disease as "decompression sickness", but the popular nickname persists, as such things do.

The onset of caisson disease may be immediate after the victim leaves the compressed environment, whether that be exiting a pressurised caisson or coming up to the surface after a diving excursion in the ocean, or may not be until hours later. Symptoms divide into three broad categories, each with nicknames given by those working in industries at risk. The "bends" strike the joints, muscles, and skeletal systems, inflicting pain that may range from annoying to agonizing, often contorting the victim both by pressure within the affected body part creating flexion and spasms, and by attempts to relieve the pain through posture. The "chokes" affect the respiratory system, causing difficulty in breathing, which may be due to lung damage, or to spasms in the diaphragm, or both. The "staggers" reflect neurological damage, causing difficulty in balance and motion, slurred speech, and other symptoms easily mistaken for a stroke by someone unfamiliar with the victim's history. More than one of these symptom clusters may be present. Decompression sickness is governed by the Harvard Law, and will vary considerably from one victim to the next in symptoms, and whether or not it even strikes. Individuals with the exact same experience in compression and decompression may present with no symptoms at all in one and lethal collapse in another.

The Harvard Law states, "under the most rigorously controlled conditions of temperature, pressure, humidity, and other variables, the organism will do as it damned well pleases".
– Percival Squallow

Currently, the only therapy for decompression sickness is immediate recompression and staged decompression according to the proper tables. The longer the victim goes without recompressing, the more damage will be done. While medications, such as opioids, will help with the pain, they will not treat the underlying cause.

Mechanics: On exiting a compressed environment in haste, without following the proper decompression protocol, each character must make a Toughness (26) Test. If successful, no symptoms occur. On a failure, each victim's disease Effect Step is set to the number by which they missed the Target Number. For example, a victim rolling a 14 on their Toughness Test would face a decompression sickness Effect Step of 12. The Effect Step determines how often an Effect Test is made, and the onset time.

Decompression Sickness Effect Step Frequency Table

Step Range	Frequency for Test	Onset Time
0 – 5	1x / day	1 day
6 – 10	1x / 12 hours	12 hours
11 – 15	1x / 6 hours	6 hours
16 20	1x / 3 hours	3 hours
21+	1x / hour	1 hour

If the victim takes twice or more than their Wound Threshold from any Effect Test, they lose one point from Dexterity, Toughness, or Perception, at their choice. This determines whether they have the bends, the chokes, or the staggers respectively. After the first Effect Test, players may choose to lose a point from a different Attribute, and may substitute Willpower for Perception if they have previously taken a loss from Perception. This reflects expansion of the symptoms and the far-reaching nature of neurological damage. Wounds caused by caisson disease may not be healed until recompression therapy has been successful.

Recompression therapy requires the proper equipment, normally only found in industrial and military sites where compressed environments are present. To be effective, therapy must begin before 24 hours have passed since symptoms appeared, or 2 Attribute points are lost, whichever comes first. After that point, therapy will not work. Make a Physician Test against the victim's decompression sickness Effect Step. One Test may be made per hour, up to the character's Rank in Physician. Once a successful Test is made, the right decompression protocol has been established, disease Effect Tests stop, and the victim may begin to recover.

Miner's Lung

Type: Debilitation
Onset Time: Variable; requires ongoing coal dust exposure
Effect Step: 9
Duration: Chronic

Also known as black lung, miner's lung develops from long-term inhalation of coal dust. The malady may be found in mild to moderate forms in the larger cities, in the poor areas where lack of ventilation traps the dust in the living quarters, and in those who work as firemen, boiler technicians, steamfitters, and stationary engine drivers. More severe cases occur in the coal mining industry, with the worst being found in long-term employees of the cheaper concerns, the ones that don't wet down the coal and flush out the air in the mines as often as they should.

Once inhaled, coal dust remains in the lungs, an inorganic substance the body has no way of dislodging. Scarring forms around the particles, and over time can develop into obstructive fibrosis. This leads to loss of lung capacity, which in turn causes loss of stamina. In addition, persistent inhalation of particulates causes chronic bronchitis, a condition characterised by a persistent productive cough for periods of three months or longer. The presence of chronic bronchitis does not necessarily indicate miner's lung as a coexisting condition, but an ongoing cough that does not respond to chlorodyne should be checked by a physician as a possible indication of something serious.

Both miner's lung and chronic bronchitis are closely related to silicosis, caused by inhalation of dust in a desert or sandy environment. This is rapidly becoming a problem in the dry areas of the Gruv. Travellers in the central plains are advised to wear dust masks when passing through areas of scrub or hardpan, as the soil of the Gruv is high in silica, and the dust kicked up by passage of animals and vehicles can be hazardous.

Mechanics: Persons routinely exposed to airborne coal dust take a penalty to Fatigue Tests and other Toughness-based Tests that involve breathing capacity. See the following table.

Black Lung Capacity Loss Table

Exposure Level	Penalty of	Every	Typical Of
Mild	-1	3 years	Living in London's East End
Moderate	-1	2 years	Working as a steamfitter or engine driver
Severe	-1	Year	Working as a coal miner
Extreme	-2	6 months	Working in a poorly run coal mine

Whenever a victim of miner's lung fails a Toughness-based Test involving breathing capacity, such as Fatigue after exertion, they take Damage equal to the Effect Step of the disease. On a Rule of One result for the Toughness Test, the victim is incapacitated by coughing for five minutes, unable to take any Simple, Standard, or Sustained Actions. If the victim takes a Wound from the disease Effect Test, the Effect Step is permanently increased by +1. Damage and Wounds from miner's lung may be healed normally.

The same mechanics can be used for silicosis caused by dust in the Gruv. No mechanics are required for chronic bronchitis, although it is suggested that victims should take a -3 Step penalty to attempts to be quiet, due to the uncontrollable nature of the cough.

Phossy Jaw

Type: Debilitation
Onset Time: Variable; requires substantial phosphorus exposure
Effect Step: 10
Duration: Chronic

Early matches were of the "Promethean" type, the end of the stick coated with a mixture of potassium chlorate and sugar and allowed to harden. To light it, the match was dipped in sulphuric acid, then held well away for a moment while it fizzed and then burst into flame. Having Promethean matches meant carrying a little bottle of sulphuric acid, which came in handy as adventuring kit. However, a better solution was needed.

The first friction matches used a mixture of potassium chlorate and antimony sulphide, and were "strike anywhere" matches, not exactly safe as any friction against the head could ignite them, but safer than carrying a vial of sulphuric acid. Safety matches followed, which had to be struck on the box, as the striking strip was impregnated with red phosphorus and reacted with the head of the match during the strike. A move to white phosphorus made the matches safer for the buying public, but still highly dangerous to the workers, mostly women, who made them.

Manufacturing with white phosphorus without regard to contamination of the working environment releases vapours that transfer to the workers. Most factories do not provide a lunchroom. Few even provide a sink where the workers can wash up before their meal break. This results in phosphorus contamination being transferred from the workers' hands to the food consumed. Over time, exposure to phosphorus causes decay of the teeth and jaw, a condition known as phossy jaw.

The match girls (and anyone else with the condition) suffer horribly. The condition starts with toothaches and swelling of the gums, then moves on to abscesses, tooth loss, and bone decay settling into the jaw. Long term, the condition causes brain damage and eventually death. Affected bone glows greenish in the dark. The only treatments are surgery and removal of the patient from the environment that caused

the condition, neither of which the match girls can normally afford. (See the 1879 London Sourcebook, p.89, for a note about this.)

Mechanics: While phossy jaw is the result of a Poison, the symptoms act more like a disease. Phossy jaw starts after at least one week of heavy white phosphorus exposure, such as in a munitions factory explosives mixing room, or one month of mild exposure, such as in a match factory. Make the initial Test using the disease base Step of 11 plus 1 for each day of heavy exposure or week of mild exposure, against the victim's Toughness Step. If the Test succeeds, the victim takes the base Effect Step in Damage. Make another disease Effect Test using the base Step against the victim's Toughness Step each week that white phosphorus exposure persists, and one week after exposure is discontinued. Each Wound taken represents rotting of the teeth and jaw. Every other Wound causes the permanent loss of 1 point of Charisma Attribute. Every third Wound causes the permanent loss of one point of Toughness Attribute. Every fourth Wound causes the permanent loss of one point of Perception Attribute.

Wounds caused by phossy jaw cannot be healed by normal means. All exposure to white phosphorus must cease for at least one week before any attempt may be made. A Physician Test against the base Effect Step of the disease plus 1 for each Wound the victim has suffered must be made to attempt surgical excision of diseased teeth and bone from the victim's jaw. If successful, and the victim is not further exposed to white phosphorus, the progression of the disease is halted. Wounds may then be healed by the normal means, but disfigurement from the surgery and the disease remain. Lost Charisma and Toughness may be bought back up with character advancement only after successful surgery, representing post-surgical treatment to restore function and appearance. Lost Perception cannot be regained, as neurological damage is beyond the capability of the era's medicine.

1879 GAMEMASTER'S GUIDE

New Spirits

It is on the acceptance or rejection of the theory of the Unity of all in Nature, in its ultimate Essence, that mainly rests the belief or unbelief in the existence around us of other conscious beings besides the Spirits of the Dead.
– Helena Blavatsky

New Spirit Powers

See Spirit Powers, 1879 Gamemaster's Guide, for further explanation of how these work.

Enhance Summoner

Step: CHA + Force Rating
Action: Standard

The spirit is able to provide a significant increase to its summoner's magical ability, but only for a short time. The spirit merges with the summoner, and makes an Enhance Summoner Test against the summoner's Mystic Defense. Each success grants a +1 Step bonus. If the Test scores multiple successes, the summoner may distribute the Step bonuses as they see fit - multiple Step bonuses to a single Test, each one to a different Test, or any combination thereof - but may only apply a Step bonus to one Test per round. The effect lasts until the summoning ends, or all Step

bonuses have been spent. The summoner takes Strain equal to the spirit's Strength Rating when the Enhance Summoner Test is made, to reflect the difficulty inherent in channelling the spirit's energy. While the power is in effect, the summoner takes on some superficial characteristics of the spirit, which are exaggerated when applying the bonus to a Skill or Test. For example, an air elemental would cause the summoner's hair to drift as in a breeze, a fire elemental would result in the summoner giving off streams of smoke, or a water elemental would result in the summoner's movements becoming more fluid and graceful.

Hardened Armor

Step: NA
Action: NA

Earth and wood spirits only. Additional successes from Attack Tests do one Step less damage per success against an elemental with this power. For example, instead of +2 Steps damage per additional success, the attacker only gets +1 Step damage per additional success.

Poison

Step: Force Rating
Action: NA

Ally and wood spirits only. The spirit's attacks are envenomed. The most common poison causes damage, though some spirits may have debilitating or paralytic poison instead.

New Spirits

Ally

This category covers those spirits that are neither elemental nor ancestral, including entities from the deep astral, spirits of civilization, and spirits of nature.

Kolero

Put too many rats in a box, and they start eating each other. Cities are just big boxes to keep people in, and crowding too many people together results in violence sooner or later. There's some argument as to whether Kolero came into being as a manifestation of urban rage, or already existed and was drawn to a resonant phenomenon. Those encountering the spirit generally aren't concerned with such abstruse points, but rather more with their own survival, or the destruction of their target, but not usually both at once.

The larger and more bloodthirsty the mob, the more likely Kolero is to be part of it. The spirit encourages rage, and feeds off it, in a violent cycle that can be difficult to break. The tighter the crowding, the faster tempers rise. Suddenly, a passenger on a crowded train savages another with teeth and nails over a collision that barely merited an "excuse me". Their passion spent, Kolero moves on, leaving the perpetrator aghast at what they did under its influence. Scotland Yard's Arcane Crimes Division has learned to send a spirit worker or two any time the riot squad is called out, looking for anyone with glowing red eyes, or a dark swirl above the part of the crowd that's pushing hardest.

Summoning Kolero can be done, but one would have to wonder to what purpose. Vengeance, maybe, or mayhem; some dark motive that involves wielding rage like a weapon. Anyone doing so is likely to be charged with an offence, should Arcane Crimes catch up with them.

Force 9 Ally (Urban) Spirit, "Kolero"
DEX: 14 STR: 15 TOU: 14
PER: 12 WIL: 14 CHA: 12
Initiative: 14 Physical Defense: 21
Actions: 3 Mystic Defense: 20
Attack: 18 Social Defense: 20
Damage: Physical Armor: 10
Claw 13; Bite 16 Mystic Armor: 12Death: 78 Recovery Tests: 6
Unconsciousness: NA Knockdown: 15
Wound Threshold: 19 Movement: 12
Adventure Award: Warden Tier (Group)
Karma Points: 18 Karma Step: 12
Powers: Aid Summoner (9); Astral Sight (21); Empathic Command (23); Empathic Sense (21); Enhance Summoner (21); Find (21); Frenzy 9 (23); Incite Mob (23); Lifesight (21); Manifest (9); Possession (23); Spellcasting (21)
Rules
When using Enhance Summoner, the host becomes visibly enraged, their muscles tense, their veins bulging, eyes glowing red, and hair standing on end. The host automatically fails any Test to restrain themselves from violence or furious action. Under Possession, the same appearance applies, but the host may make an opposed Willpower Test against Kolero's Willpower to hold back from violent action. This Test does not count as a Willpower Test to force the spirit out, but if such a Test immediately follows, the host gains +1 Step to the second Willpower Test for each extra success scored in the first.

Ixthalion

While there may be many ways for a spirit to rise in status, one of the quickest ways is by being summoned and completing services, which in turn adds to the spirit's energy. Repeated summonings make for more powerful spirits, as every priest and shaman knows. Ixthalion would very much like to not be one of the lesser entities, kicked around by the big spirits and at risk of being eaten if a Great Form feels peckish. Being summoned, though, just doesn't sound like the best option. Older spirits tell such horrible stories about the Earthly plane, about summoners who demand great service for little reward, about enchanters who bind spirits into items and drain the spirit like a battery. The whole thing sounds dodgy at best, and terribly risky. This has left Ixthalion in a quandary, paranoid about being summoned and what might happen, and yet needing to enhance its power so it's no longer one of the little fish in the big pond of the astral domain. To add to the problem, its name has become known to the spirit working community (rookie mistake on its part), so Ixthalion is one of the few spirits that can be specifically summoned. The end result is a twitchy, nervous spirit that constantly looks for the flaw in the bargain.

Force 4 Ally Spirit, "Ixthalion"
DEX: 5 STR: 5 TOU: 5
PER: 6 WIL: 6 CHA: 6
Initiative: 8 Physical Defense: 11

Actions: 1 Mystic Defense: 13
Attack: 9 Social Defense: 13
Damage: Physical Armor: 5
Unarmed (5): 10 Mystic Armor: 7
Death: 32 Recovery Tests: 2
Unconsciousness: NA Knockdown: 5
Wound Threshold: 8 Movement: 12
Adventure Award: Novice Tier
Karma Points: 8 Karma Step: 7

Powers: Aid Summoner (4); Astral Sight (10); Confusion (10); Detect Trap (10); Detect Weapon (10); Empathic Command (10); Empathic Sense (10); Lifesight (10); Manifest (4); Spellcasting (10); Suppress Curse (10)

Rules

Ixthalion cannot be summoned without a bargaining Test (1879 Players Guide, p.405, and 1879 Gamemaster's Guide, p.447), whether or not the summoner's Skill Rank is greater than its Force Rating. It gains a +4 Step bonus to its Force Rating for all Tests involved in negotiating for its services. Ixthalion will not agree to any service that is open ended, has no time limit, or would drain its energies. Attempts to bind the spirit, such as using it to power an enchantment, or otherwise restrict it, grants the spirit an immediate and free opposed Test, its WIL+FR against the summoner's Summon Skill, to break free. Ixthalion never attacks a summoner if negotiation fails or it goes free, but instead immediately flees to the depths of astral space. Attempting a repeated summoning after a failed negotiation or a betrayal requires two extra successes.

Ancestral

Eorma

When Eorma still carried an axe, his king was Cnut, and he came to England to fight against Edmund's forces in the reconquest. Although the Danes won at Assandun, Eorma had quarrelled the night before with his cousin Malte over a woman, and in the rush of the battle, Malte struck him down from behind with an English pike seized in the fight. Finding his body with a bloodied English weapon next to it, everyone assumed he was just another casualty, he was mourned, and they moved on. They had half of England to rule, after all.

Eorma has not been able to rest. The usual expedient of seeking justice against his murderer went by the wayside hundreds of years ago. His remains got proper treatment, so that's not an option either. Eorma can be called upon to assist in setting right a betrayal, especially one by family. He may show up on his own if such a thing has happened. It's possible he may be able to move on once he's set to rights enough injustices, operating under a situational binding. Exactly how this sort of thing works is still under study, as it's only been a few years since the existence of spirits became provable.

Force 9 Ancestral Spirit, "Eorma"
DEX: 14 STR: 14 TOU: 14
PER: 13 WIL: 13 CHA: 13
Initiative: 13 Physical Defense: 20
Actions: 3 Mystic Defense: 21

Attack: 18 Social Defense: 21
Damage: Physical Armor: 10
Spectral Axe: 19 Mystic Armor: 12
Death: 78 Recovery Tests: 6
Unconsciousness: NA Knockdown: 13
Wound Threshold: 19 Movement: 12
Adventure Award: Warden Tier (Group)
Karma Points: 18 Karma Step: 11

Powers: Aid Summoner (9); Astral Portal (9); Astral Sight (22); Confusion (22); Detect Trap (22); Detect Weapon (22); Empathic Sense (22); Evil Eye (22); Find (22); Lifesight (22); Manifest (9); Possession (22); Spellcasting (22); Temperature

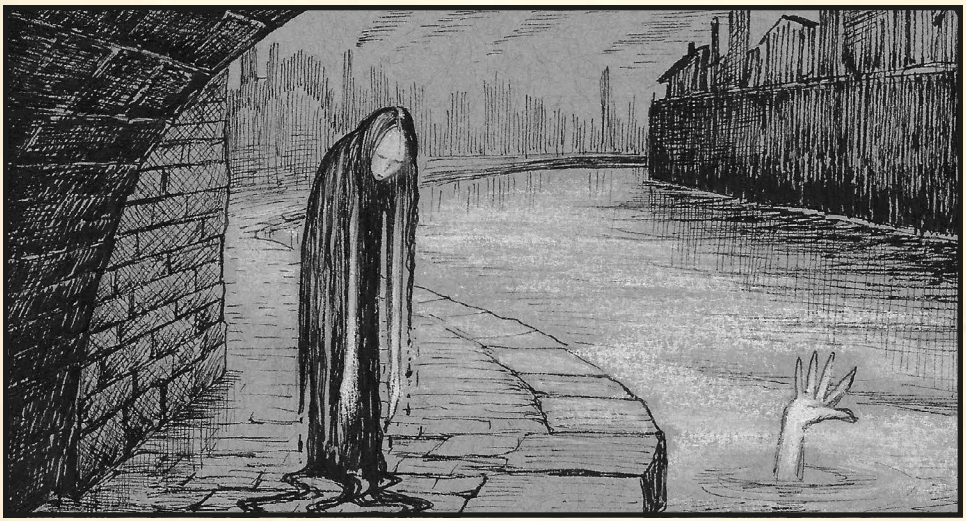
Rules

Eorma's spectral axe goes against Mystic Armor, not Physical. If summoning Eorma to fight against someone who has committed a betrayal, make the Test at +2 Steps. If the foe has committed treachery against blood kin, Eorma will grant an extra service beyond those obtained in negotiation or the Summoning Test. If the proper formula for calling up an axeman to the banner to stand in battle can be recited in 9th Century Danish, the Summoning Skill is not needed to call Eorma forth, although a negotiation Test may still be required, especially if the reason for the summons cannot be clearly expressed in the same language. (Best to actually learn old Danish and not try to do the summon phonetically.) If the summoner or another person willingly allows Eorma to possess them, the duration is extended from minutes to hours, and control of the body's actions can be passed at will between Eorma and his host. When Eorma possesses a person, he can fight with his own stats, and Manifest his armour and axe.

Jeanette Hartley

Jeanette, a shopgirl from Leeds, died in 1853 at the age of 22 when she was murdered and her body thrown off a bridge into the canal. Heavy rain that night caused an overflow into the sewers, and her remains have been caught in the depths ever since. Jeanette has spent her time rising in the spiritual hierarchy, responding to open summonings and performing whatever tasks she could in order to increase her strength and gain power. She hopes that one day a summoner will ask her what she would require for a great service, or that she will find someone willing to entertain a bargain offered by a spirit. She wants her remains to be dredged up and given a proper burial, so that she might have a chance to move on to whatever destination awaits her. As for justice, her killer was arrested eight months later on an unrelated charge. He was given a choice of imprisonment or enlistment, and died in battle in the Crimea.

Force 6 Ancestral Spirit, Jeanette Hartley
DEX: 9 STR: 7 TOU: 9
PER: 10 WIL: 10 CHA: 10
Initiative: 10 Physical Defense: 14
Actions: 2 Mystic Defense: 16
Attack: 12 Social Defense: 16
Damage: Physical Armor: 6
Unarmed: 8 Mystic Armor: 10
Death: 56 Recovery Tests: 4
Unconsciousness: NA Knockdown: 7



Wound Threshold: 14 Movement: 12
Adventure Award: Journeyman Tier
Karma Points: 12 Karma Step: 9
Powers: Aid Summoner (6); Astral Portal (6); Astral Sight (16); Confusion (16); Detect Trap (16); Detect Weapon (16); Empathic Sense (16); Find (16); Lifesight (16); Manifest (6); Possession (16); Spellcasting (16); Temperature (16)
Rules: Jeanette prefers not to use her Possession ability. She believes it to be rude, even with consent from the target.

Elemental

Caridea

Caridea is what happens when a summoner becomes arrogant and attempts to control something beyond their reach. A powerful air elemental, Caridea was badly abused by a previous summoner, who succeeded in binding it when negotiations failed, and tortured the spirit when it disobeyed. The spirit has not recovered from the experience, reflected partly in its lower Charisma, Toughness, and Damage Ratings, partly in its increased Willpower, and will lash out at the slightest provocation. Caridea does not manifest in any solid or static form, showing up only as swirls of wind, a gathering of storm clouds the size of an elephant crackling with tiny lightning, or a vaguely defined and translucent avian / draconic form constantly shifting in structure and detail.

Force 10 Air Spirit, "Caridea"
DEX: 14 STR: 13 TOU: 11
PER: 14 WIL: 15 CHA: 11
Initiative: 14 Physical Defense: 26
Actions: 3 Mystic Defense: 26
Attack: 24 Social Defense: 24
Damage: Physical Armor: 12
See Powers Mystic Armor: 10
Death: 54 Recovery Tests: 5

Unconsciousness: NA Knockdown: NA
Wound Threshold: 15 Movement: 20
Adventure Award: Warden Tier (Group)
Karma Points: 20 Karma Step: 13

Powers: Aid Summoner (10); Astral Sight (24); Detect True Element (24); Engulf (23); Enrage Element (25); Find (24); Frighten (25); Insubstantial; Manifest (10); Manipulate Element (25); Share Knowledge (10); Spear (23); Spellcasting (24)

Rules

Caridea becomes violent on any failed negotiation Test or other interaction Test that attempts to bargain with or dominate it. If no actual harm was meant, an interaction Test with an extra success will calm the spirit. If any harm was done, or shown to be intended, the spirit will not relent until it has caused a Wound, or until it has taken a Wound, at which time it will attempt to break free of its summoning and flee. It prefers to attack from a distance by enraging the air around its target, following up with Lightning Bolt spells and Air Spears. Only in extreme situations will it resort to its Engulf power, and will not relent until its victim is unconscious or dead. Note an Engulfed victim is effectively held by the attacking spirit. Caridea has been known to carry its Engulfed victims upward to great height, then release them from the attack. Falling Damage isn't the spirit's problem.

Cinder

Born in a tenement fire just two weeks ago, summoned into existence by one of the flat-dwellers burning to death when the building collapsed, Cinder has a long way to go before it can be counted among the ranks of the Blazing Ones. Already, though, it has learned that when it burns a person, it gains mana from the attack, from scorching the life force away from its victim and subsuming it into itself. Not cruel, just hungry, Cinder has no understanding of what it is doing – it's too new, too raw, too beholden to basic drives and has not yet developed the intelligence to pick and choose how it feeds. Rats won't do, nor pigeons. They can be tricked into picking up the glowing spark, the shiny thing, the warmth that lays out false promises as bait, but the reward from scorching them is nothing compared to the gush of energy from something intelligent, something Boojum, something human, something with consciousness of its own mortality. The cruelty of the very young carries no malice, only the focus on the needs of the self, the gratification of the desires of the moment, and at the moment, Cinder is ravenous.

Force 1 Fire Elemental, "Cinder"
DEX: 5 STR: 4 TOU: 4
PER: 3 WIL: 5 CHA: 3
Initiative: 7 Physical Defense: 8
Actions: 1 Mystic Defense: 8
Attack: 6 Social Defense: 5
Damage: Physical Armor: 5
Burn: 9 Mystic Armor: 1
Death: 28 Recovery Tests: 2
Unconsciousness: NA Knockdown: NA
Wound Threshold: 8 Movement: 6
Adventure Award: Novice Tier
Karma Points: 2 Karma Step: 4

Powers: Astral Sight (4); Elemental Aura (1); Detect True Element (1); Manifest (1); Manipulate Element (6); Spellcasting (4)

Rules

Cinder manifests as a bright spark, a pinpoint of heat and light, a cast-off from a larger fire that simply won't go out. It floats about the city, feeding occasionally on anything flammable as it feels the need, and looks for opportunities for greater input. A creature of base drives, Cinder will land right under the thumb of someone about to grasp firmly, searing a tiny burn into their flesh and rejoicing in the surge of astral energy, the spike of pain and mana released by the wound. How many like it are loose in London right now, sparks that flew out from a great conflagration, seeking more fuel?

Galenea

Although she speaks fluent Hellenic Greek and several other Mediterranean languages, Galenea prefers the far northern or southern climes, the closer to the poles the better. She, for the elemental insists that she is female and always manifests as such, disdains the fluidity of liquid water for the crystalline brilliance of ice. Summoners are advised to brush up on their ancient Greek in language, etiquette, and literature, as Galenea has little patience for the boorish and uncultured. To those who properly address her, who extol her beauty in extemporaneous verse, and who respect her disdain for summer, may find her granting their wishes in abundance. The best results come from those who summon her from the ice of a frozen river or lake, surrounded by new-fallen snow, and use the Athenian formulae for their incantations.

Force 8 Water (Ice) Elemental, "Galenea"
DEX: 9 STR: 8 TOU: 8
PER: 9 WIL: 9 CHA: 11
Initiative: 13 Physical Defense: 21
Actions: 2 Mystic Defense: 22
Attack: 19 Social Defense: 21
Damage: Physical Armor: 8
Unarmed: 8 Mystic Armor: 8
Death: 44 Recovery Tests: 4
Unconsciousness: NA Knockdown: NA
Wound Threshold: 13 Movement: 7
Adventure Award: Journeyman Tier
Karma Points: 16 Karma Step: 11

Powers: Adaptability (8); Aid Summoner (8); Astral Sight (17); Detect True Element (8); Elemental Aura (8); Engulf (17), Enrage Element (17); Manifest (8); Manipulate Element (17); Share Knowledge (8); Spear (16); Spellcasting (17); Temperature (17)

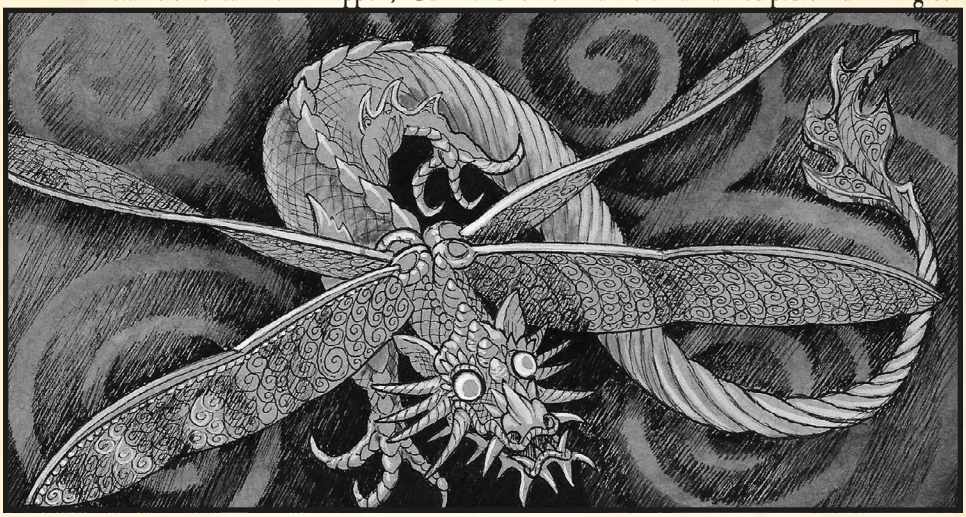
Rules

Galenea refuses to Manifest unless at least ten gallons of water are present, from which she can form a temporary body made of ice using her Temperature and Manipulate Element powers. The resultant ice golem, or animated ice sculpture, has her stats, and cannot be easily shattered as would natural ice. She can only use her Temperature power on water she is manifesting through, to freeze it for her preferred form. In a fight, she has been known to abandon a manifestation one round, and create another the next, effectively vanishing from in front of her attacker to reappear behind them, or to use her Spear power from directly below her foe if they are standing in snow

or on ice. Characters Engulfed by her take Step 8 Cold Damage, armour piercing, per round, in addition to any other effects. Summoners who have actually learned Hellenic Greek with their Speak Languages Skill, and who make a successful First Impression, Etiquette, or Seduction Test against her Social Defense after a successful Summon Test, gain one extra service for each success. A further relationship with the elemental may arise based on how graciously the summoner treats her. Summoners who recite the formulae phonetically gain one extra service in addition to whatever their Summon Test brings them.

Kinzoku Ganmoku-sensei

A metal elemental from Nippon, Ganmoku-sensei manifests as a sculptured and filigreed



dragonfly, varying in size from the actual insect to a behemoth that rivals a true dragon, as the need arises. While it spends most of its time tending to its primary purpose, guiding and assisting the great smiths of its native land, the spirit has been encountered in many other nations. Ganmoku-sensei seeks out metalworkers of high skill, and provides them with inspiration and higher knowledge of their craft. In return, it asks for purified bits of metal, not just smelted to remove foreign substances, but ritually cleansed of influence. The specific metal varies, but generally will be one of the more rare ones found in the region. Ganmoku-sensei has at different times asked for an ounce of nickel, ten grams of tungsten, and a gram of osmium, and rarely seeks precious metals such as gold and silver. In return, the spirit grants knowledge of smelting, forging, and smithing techniques, provides guidance in chasing and etching and other forms of embellishment, and leaves the metalworker substantially more skilled in their craft. Some metalworkers in Nippon regard the spirit as a divine being, or a revered ancestor, and build shrines to it in their workplaces. Doing so does not guarantee its favour, nor a visit, but the rituals of preparing purified metals for offering at the shrine definitely improve both the skill and focus of the metalworker. Attempts to summon Ganmoku-sensei are only made by the most arrogant or ignorant, and tend not to end well, as the spirit does not take kindly to blatant shows of disrespect.

Force 13 Earth (Metal) Elemental, "Kinzoku Ganmoku-sensei"
DEX: 19 STR: 15 TOU: 15
PER: 17 WIL: 18 CHA: 17
Initiative: 19 Physical Defense: 27
Actions: 3 Mystic Defense: 36
Attack: 28 Social Defense: 34
Damage: Physical Armor: 32
Claw (12): 27, Bite (15): 30 Mystic Armor: #
Death: 92 Recovery Tests: 9
Unconsciousness: NA Knockdown: 15
Wound Threshold: 24 Movement: 6 / 22*
Karma Points: 30 Karma Step: 16
Adventure Award: Master Tier (Group)

Powers: Aid Summoner (13); Astral Sight (30); Detect Element (31); Detect True Element (13); Engulf (31); Enhance Summoner (30); Enrage Element (31); Gather Element (31); Manifest (13); Manipulate Element (31); Remove Element (31); Share Knowledge (13); Spear (28); Spellcasting (30)

Rules

* The second number is the spirit's Flying movement.

Ganmoku-sensei may appear on its own and offer a deal. If the metalworker to whom it has appeared can provide it with a required amount of a specific metal within a specific time, the spirit will remain as a teacher for a period of one week up to six months. Training under the spirit will improve the metalworker's Ranks in all relevant Skills by 3, up to the maximum for Core, Optional, and Free Skills. The masterwork produced at the end of the training will be worth a year's earnings, assuming the metalworker is willing to sell it.

Attempting to summon Ganmoku-sensei requires two extra successes. Subsequent negotiation Tests are at 4 Steps for the summoner. If negotiation fails, and the summoner does not have the Rank to demand service, Ganmoku-sensei will attack, with the intent of leaving the summoner unconscious and visibly scarred.

The spirit may use its Manipulate Element power to reshape anything made of metal into any form of equal mass, as a Sustained Action requiring at least two combat rounds, and possibly more for large and/or complex objects.

Pinopsida

A spirit of the high forest, of evergreens close to the snow line, Pinopsida could have spent the next century as it had the last however many, seeing to the quiet groves and ranks of pines and firs in the cold, thin air of the Pyrenees. Such was not to be. A new road had been decreed, across the border from Lourdes to Pamplona. Such a route would drive through the center of Pinopsida's domain, severing one part of the natural world from another. After considerable effort to prevent it entirely, Pinopsida accepted the fact that people are going to carve their way up into the mountains. It made arrangements with the survey team and construction crew to spare its domain, and go through a desolate neighbouring area instead, where the impact would be felt a bit less. The earth

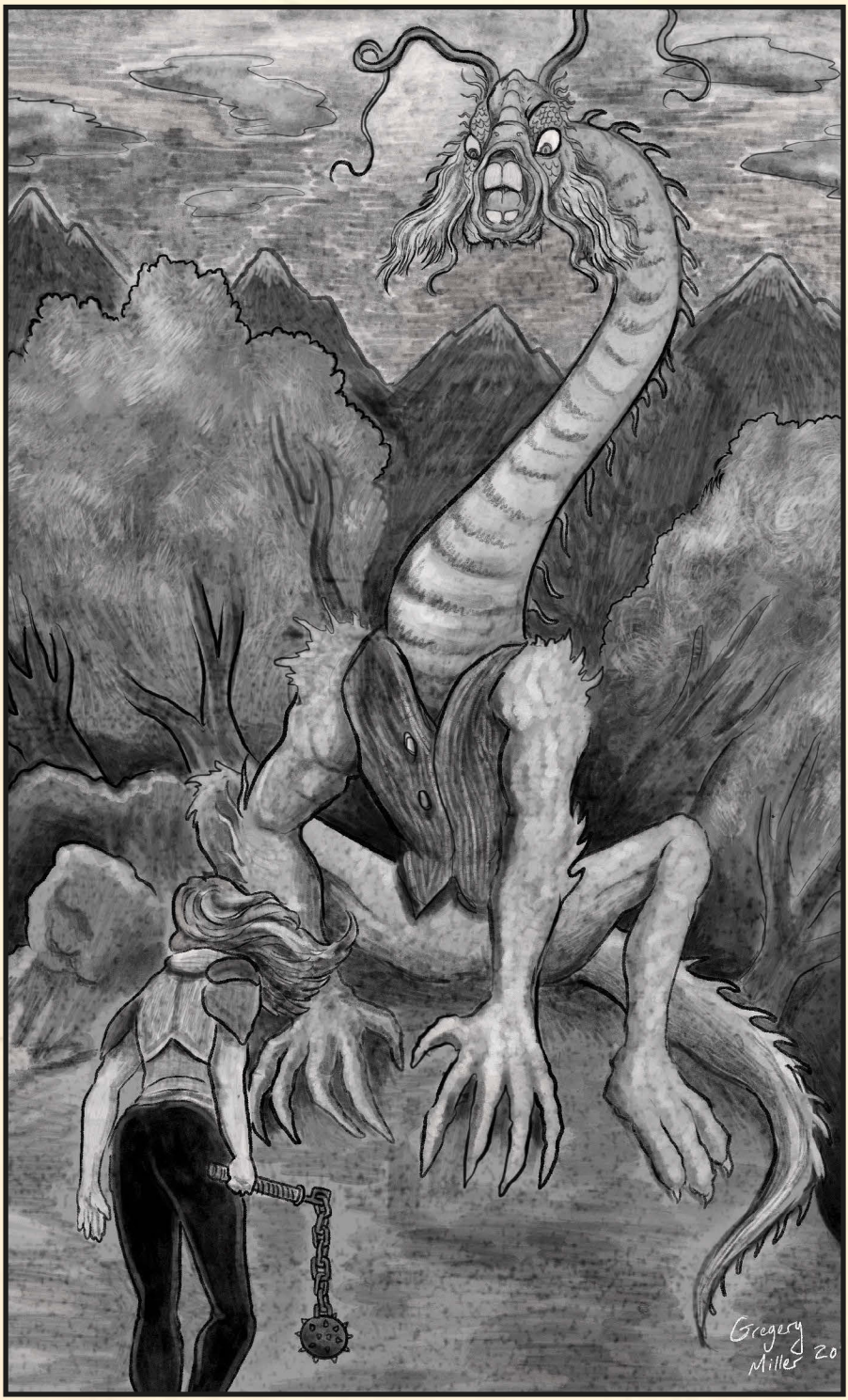
elementals felt betrayed by this, and hung Pinopsida out to dry, leaving it on its own. When the planners changed the route back to its original route because of the increased financial costs of the alternate one, Pinopsida had no recourse but its own strength, which dwindled as its domain has been ravaged by steam shovels and men with axes. At this point, it's desperate and will take whatever help it can get regardless of the price, as long as its domain can be saved and the spirit will survive.

Force 5 Wood Spirit, "Pinopsida"
DEX: 7 STR: 8 TOU: 8
PER: 9 WIL: 10 CHA: 9
Initiative: 10 Physical Defense: 9
Actions: 2 Mystic Defense: 19
Attack: 16 Social Defense: 16
Damage: Physical Armor: 11
Unarmed: 11 Mystic Armor: 5
Death: 44 Recovery Tests: 4
Unconsciousness: 36 Knockdown: 13
Wound Threshold: 13 Movement: 6
Adventure Award: Journeyman Tier
Karma Points: 10 Karma Step: 8

Powers: Aid Summoner (5); Astral Sight (14); Detect True Element (5); Engulf (15); Enrage Element (15); Find (14); Hardened Armor; Manifest (5); Manipulate Element (15); Share Knowledge (5); Spear (13); Spellcasting (14)

Rules

Pinopsida will accept any bargain offered that includes preservation of its domain and its strength, as long as it does not involve being bound away from its domain in the process.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1879 GAMEMASTER'S GUIDE

New Creatures

"Man selects only for his own good: Nature only for that of the being which she tends."
- Charles Darwin, The Origin of Species

This chapter provides the tools necessary to create new creatures for 1879, explores the magical creatures that have appeared on Earth since the opening of the Rabbit Hole, and describes additional creatures that have been catalogued in the Gruv.

Creature Creation Process

The Bestiary chapter of the 1879 Gamemaster's Guide provides many creatures that may appear in an 1879 campaign or adventure. Eventually, however, player characters may become familiar with these creatures' powers and abilities, and will no longer be surprised by their sudden appearances or overwhelmed by their attacks. This section provides guidelines to help Gamemasters create their own creatures.

- Designing a new creature follows a series of eight steps:
- Determine Attributes
- Determine Characteristics
- Determine Creature Traits
- Determine Attack and Damage Steps
- Determine Karma
- Determine Powers and Spells
- Determine Adventure Award
- Write Commentary, Rules, Adventure Hook

Determine Attributes

Attributes are measured in Steps rather than values. There is no hard and fast way to determine the average Attribute Steps for a new creature. Almost any combination is possible. The following text serves as a guideline; use the existing creatures as examples.

Dexterity: The smaller the creature, the more nimble it is (a mouse can react much more quickly than an elephant). Dexterity also influences the base Step number for a creature's physical attacks.

Strength: Strength determines the base Step number for the physical damage a creature inflicts. The larger the creature, the stronger it will usually be. Because Strength determines how much a creature can lift and carry, this becomes a particularly important Attribute for pack animals.

Toughness: Toughness determines how much damage a creature can take before it falls unconscious or dies. This Step number also determines how fast a creature heals.

Perception: Perception relates to a creature's innate intelligence. This value does not reflect its sentience or lack thereof, but simply means that it is well-adapted and highly effective at identifying food or enemies. A creature with high Perception also uses any innate magical abilities effectively.

Willpower: A very tough creature with a low Willpower Step may wilt at the first sign of danger, but take a very long time to die (whimpering and crying all the while). A creature with high Willpower appears fearless and is less likely to believe illusions.

Charisma: This Attribute determines how much of an impression the creature makes on others and how resistant it is against taming and/or domination attempts.

The Sons of the Sprocket have grown far too accustomed to the creatures they encounter in the Anunnaki ruins, as they explore for possible alien technology caches. Their tactics have gotten routine and their players are losing interest. The GM decides something new and weird is needed, and begins to plan a nasty surprise.

Caridad, the group's GM, determines first that the new creature will be small and quick, something that will disrupt the party's well-drilled responses and leave them scrambling to figure out where the threat is each round. A Dexterity of 10 will guarantee the creature will go first in combat more often than not, and be deucedly hard to hit with physical weaponry. To balance this off, she gives it a Strength of 5 and a Toughness of 6. If the Sons of the Sprocket can land a blow, it'll count. Wanting to later give the creature some magical abilities, the GM sets its Perception to 8 and its

Willpower to 7, and to make it difficult to tame, she gives it a Charisma of 7. Caridad names it the Flying Ferret, which will help determine some of its later characteristics.

Determine Characteristics

Creature characteristics function like player character characteristics, although they may be modified by creature abilities. See the modified Characteristics Table below to determine the base characteristics of a creature. The equivalent Attribute values can be adjusted by the Gamemaster to fine-tune the relevant characteristics.

Characteristics Table

	Equivalent Value	Defense Rating	Carry	Un-con	Death	Wound Threshold	Recovery per Day	Mystic Armor
2	2	2	15	4	6	3	1	0
3	5	4	30	10	13	5	1	1
4	8	5	60	16	20	6	2	1
5	11	7	95	22	27	8	2	2
6	14	8	140	28	34	9	3	2
7	17	10	195	34	41	11	3	3
8	20	11	255	40	48	12	4	4
9	23	13	330	46	55	14	4	4
	26	14	410	52	62	15	5	5
11	29	16	500	58	69	17	5	5
12	32	17	600	64	76	18	6	6
13	35	19	705	70	83	20	6	7
14	38	20	825	76	90	21	7	7
15	41	22	950	82	97	23	7	8
	44	23	1085	88	104	24	8	8
17	47	25	1230	94	111	26	8	9
	50	26	1380	100	118	27	9	10

Caridad's creature thus far has a Physical Defense of 14, a Mystic Defense of 11, and a Social Defense of 10. It's going to be hard to hit with pretty much anything. With a Death Rating of 34 and an Unconsciousness Rating of 28, though, if the party can hit it, they'll knock it down fairly quickly.

Movement Rate

A creature's Movement Rate is based on its physical makeup. Use the Races as a guideline and for comparison for bipedal creatures. For example, a humanoid creature will have a Movement Rate of 6. Existing creatures can also be used for guidance. See the Creature Movement Rate table below. Use these as a base and adjust them by +/–1 if necessary. The Movement Rate is further modified by some of the Creature Traits below.

Creature Movement Rate

Creature	Move	Creature	Move	Creature	Move
Alligator	6/8*	Grenadier Bird	3/10**	Rhinoceros	8
Bear	8	Harpy	15	Rocky Anteater	7
Buff	13	Horse, Draft	8	Sabertooth	7
Cheetah	9	Horse, Pony	8	Salamander	9
Cheshire	9	Horse, Riding	10	Scorpiodied	8
Crawling Wig	3	Horse, War	8	Shardraqx	9
Dog, Guard	7	Hunchbeak	10	Sihrstuulah	5/14**
Dog, Hunting	7	Jabberwock	11	Sisnapishtu	10
Dog, War	7	Josisaur	7	Sissetbandura	9
Dormouse	7	Leopard	8	Snake	5
Eagle	2/9**	Lion	8	Sparker	4
Elephant	8	Lizard	7	Spikejawed Sandhog	7
Falcon	2/9**	Monkey	6/7***	Sticksand	4
Flatback	5	Mordslanger	9	Storkasaur	4/12**
Galvanant	4	Nallshpritzer Soldier	7	Storsventok	7
Garnickey	8	Nallshpritzer Worker	7	Tar Beetle	4/6**
Geealong	7	Pack Mule	8	Thorny Molecrab	7
Gengit	5	Purpose	5/12*	Trihorn	9
Giant Flea	9	Pythonipede	12	Tusk'r	8
Goat	8	Rail Runner	13	Wild Boar	8
Golden Sloth	5	Rat	6	Wolf	8
Gremlin	11	Reef Dragon	8/9*		

* Second value is aquatic movement

** Second value is flying movement

*** Second value is climbing movement

The Flying Ferret wouldn't deserve its name if it couldn't fly, so Caridad gives it a Movement of 8/10, making it as fast on the ground as a horse, and as fast in the air as a grenadier bird.

Determine Creature Traits

A creature's Characteristics do not solely depend on its Attributes, but also its physical makeup. The Characteristics Table applies to creatures that have humanoid bodies. If the creature is quadrupedal, or otherwise differs, apply one or more of the Traits listed below. There is no need to list these Traits with the creature's game statistics; they just serve to help when creating one. However, any assigned Traits might influence the creature's description (see Write Commentary, p.157).

Additional Arms: Increase the number of Standard Actions the creature can carry out each round by +1 per additional pair of arms.

Additional Legs: Increase the creature's Knockdown Step by at least +1 per additional pair of legs. Use a base Movement Rate of 7 for dog-sized creatures with multiple legs, 8 for horse-sized creatures, and 9 for creatures with six or more legs.

Additional Sense: The creature has additional senses, such as Low-Light Vision, Heat Sight, enhanced hearing, or Astral Sight. These provide no bonuses to Attributes or Characteristics, but the additional sense(s) should be reflected in the creature's Perception Step.

Ethereal: The creature has an incorporeal form, much like that of a spirit. Increase the creature's Physical Defense by +5 or more.

Fast: The creature can move faster than usual. Add +1 (or more) to its Movement Rate.

Flight: The creature is able to fly or glide through the air. Add +2 (or more) to its Movement Rate as a separate Flying Movement Characteristic.

Gaseous: The creature has a gaseous form, and appears as a cloud of mist or smoke. Increase the creature's Physical Defense by +3 or more.

Immunity: The creature is immune to a certain form of attack, such as non-magical melee weapons or fire damage. This immunity must be listed in the rules section following the creature's statistics.

Increased Karma Pool: The creature has more Karma Points than usual (see Determine Karma, p.153). Increase the creature's Karma Points by a multiple of +5, to a maximum of two times the original value.

Increased Knockdown Step: The creature has a higher Knockdown Step than normal, because it's heavier than usual for creatures of its size or because of its physical makeup. Add +1 Step or more to the creature's Knockdown Step.

Karma: The creature is able to use Karma and has a Karma Step (see Determine Karma, below) and a number of Karma Points available to it. Unless the description states otherwise, creatures regenerate spent Karma Points at the rate of Karma Step points per day.

Large: Any creature larger than 12 feet tall or wide, or weighing 1,000 pounds or greater, subtracts –2 (or more) from its Physical Defense.

Magical Immunity: The creature has a strong magical defense. Add +1 (or more) to the creature's Mystic Defense and Mystic Armor.

Multiple Actions: Most creatures can perform just one Standard Action per round. Creatures with this trait are able to take more Standard Actions during a combat round (in addition to Additional Arms, above). As a general guideline, divide the creature's Dexterity Step by 5, rounding up from 2.5, and use the result as the number of additional Standard Actions, with a minimum of 1 extra Action. If the creature has powers, use the higher of its Dexterity or Perception Steps.

Natural Weapon: A creature's natural weapons, such as claws, sharp teeth, beaks, horns, antlers, or stingers, increase the physical damage it can inflict on its victims. The Damage Step of the natural weapon is based on its Size. Use the Melee Weapons table in the 1879 Players Guide, p.281, as a guide.

Natural Armor: A creature's natural armor determines its Physical Armor. Use the Armor Table in the 1879 Players Guide, p.295, as a guide. Initiative Step penalties may be applied or disregarded as appropriate.

Quick: The creature moves unnaturally fast in combat. Add +1 Step (or more) to the creature's Initiative Step.

Reduced Karma Pool: If the creature has Karma, it possesses fewer Karma Points than normal (see Determine Karma, below). Reduce its Karma Points in multiples of five, to a minimum of 5 points.

Reduced Knockdown Step: The creature is easier to knock down than normal, because it is lighter than usual for its size or because of its physical makeup. Subtract –1 Step (or more) from the creature's Knockdown Step.

Shapeshifter: This ability can only be possessed by humans, who gain it from LGF as an alternative to becoming a Boojum. Shapeshifters can change between their human and animal forms by taking half their other form's Wound Threshold in Strain and spending two combat rounds unable to take any other Action, including Free Actions. Shapeshifters have two sets of Attributes, one human and one animal. They advance their Attributes independently as they advance in Professional Rank. When they shift, they get a free Recovery Test that does not count against their daily limit. This Recovery Test can heal damage or a Wound at the player's option. When in human form, and put under stress, the player must make a Willpower (8) Test or shift to their animal form. (The Gamemaster may adjust the Target Number of the Willpower Test according to circumstances.) On one success, they remain human, but take on an animalistic appearance. This gives a +1 to Social attacks but causes a temporary -1 shift in Attitude for NPCs and a temporary -1 to SL. Lack of self control is considered shameful in Victorian society. Stress includes taking a

Wound, taking a hit that scores more than one success, taking a social or Mystic attack that scores more than one success, etc. If the result of enemy action, the Willpower Test is made at a penalty equal to the opponent's success count minus 2. A Taunt that scores 3 successes requires a Willpower Test at -1 Step. In human form, the character will vaguely resemble their animal form. For example, a fox shapeshifter will have high cheekbones and sharp teeth, and a small and graceful build.

Slow: The creature moves slower than usual. Subtract –1 Step (or more) from its Initiative Step. Subtract –2 (or more) from its Movement Rate. If the creature is unable to move (a plant, for example), it has no Movement Rate, and is generally easier to attack (–3 or more to the creature's Physical Defense).

Small: Any creature smaller than two feet tall or wide, or weighing twenty pounds or less, adds +2 (or more) to its Physical Defense.

Social Immunity: The creature is resistant to Social attacks, including attempts to tame, control, or befriend it. Add +1 (or more) to the creature's Social Defense.

Vulnerability: The creature is susceptible to a certain substance or a special form of attack, such as salt or fire-based damage. This vulnerability must be listed in the rules section following the creature's commentary, including any special rules that apply if the creature is confronted with it.

Caridad has already given the Flying Ferret its Flight ability, but notes the creature has it for later. She decides to make it both Fast and Quick, bumping its Movement to 9/11 and its Initiative Step to 11. To compensate for this, she makes it easier to knock down, due to its being lighter than a regular ferret, reducing its Knockdown Step from 5 to 4. The Flying Ferret is also Small, which raises its Physical Defense by +2, to a 16. It's going to be deucedly hard to hit, but if the party can land a hit on it, it's down easy.

Determine Attack and Damage Steps

A creature's Attack capability is measured in Ranks, as if it had the Unarmed Combat Skill, which are added to the creature's Dexterity Step. As a rule of thumb, most creatures have 1 to 3 Ranks in this ability. More lethal creatures may have a higher Rank and thus a higher Attack Step.

The base Damage Step is the creature's Strength Step. Add to this if the creature has claws, teeth, talons, or other natural weapons, which generally increase damage in the range of +1 to +3.

All the Flying Ferret has going for it is a bite attack, which it's reasonably good at, but its teeth are small. Caridad gives the creature an Attack Step of 2, but only allows +1 Damage for its teeth, giving it a total Attack of 12 and a total Damage of 6. It's going to be annoying, but not lethal.

Determine Karma

Magical creatures, such as dual-natured animals, spirits, and dragons, can have Karma. As with people, a small number of mundane creatures are also able to develop magical powers and the ability to use Karma. The higher the Karma Step, the more powerful the creature is. As a rule of thumb, humans have a Karma Step of 5, and the great dragon Hyrdofeay has a Karma Step of 18. Creatures recover a number of Karma Points per day equal to their Karma Step.

Caridad decides the Flying Ferret doesn't rate Karma, and doesn't give it any.

Determine Powers and Spells

Creatures can be assigned to one of four categories: mundane creatures, dual-natured creatures, spirits, and dragons. Each of these creature types has its unique list of abilities and powers. Use common sense when assigning new powers to a creature. For example, horses certainly don't know how to handle melee weapons, but a buggane might learn. The Step of a power is usually determined by adding the Rank to the corresponding Attribute Step. The maximum Rank a creature can have in any power or ability is Rank 10 for mundane creatures and Rank 15 for magical ones.

Again, Caridad decides that the Ferret has enough going for it already, and doesn't give it any powers, giving up her earlier idea of throwing in a spell effect or creature power. She leaves the Flying Ferret's Perception at 8, though, to keep its Mystic Defense high.

Determine Adventure Award

The final step in creating the mechanics for a new creature is to assign it an Adventure Point (AP) Award. To do this, use the Creature Scaling Table. Use the highest Attribute Step, Attack or Power Rank, Damage Rank, and Defense or Armor value for each category. If the exact value isn't found on the chart, use the next highest available. For example, if the creature's Dexterity Step is a 10, use the PR5 row, Attribute Step 11.

It is okay for one category to be a little high if another is low. In general, this is best applied to the creature's Attack and Damage. For example, most Initiate Tier (PR 1 equivalent) creatures should have at maximum an overall Attack Step of 11 (Dexterity Step 8 + Attack Rank 3) and a maximum overall Damage Step of 13 (Strength Step 8 + Damage Rank 5). It is okay to have a creature with 4 Attack Ranks and a Dexterity Step of 7 for an Initiate Tier creature, provided that the other categories match for an Initiate Tier opponent. In general, the Damage Step should be lower to compensate. The table provides for a large variation, but your average Initiate Tier creature would have Step 5 in most Attributes, an Attack Rank of 2, a Damage Rank of 3, Armor of 5,

and a Death Rating of 32.

Once all the categories are determined, add the Award for each of the categories to get the total Adventure Award for the creature. Round off to the nearest 100 APs.

Spells

If the creature has spells, compare them to the Attack and Power Ranks. If the highest Tier spell the creature can cast is higher than the creature's best Attack and Power Ranks, use the equivalent maximum PR for the Tier for the Attack/ Power Rank line.

Karma

If the creature has a Karma Step higher than 4, the Adventure Award is increased by +1 PR, or decrease the number of creatures appearing to 1 per 2 PC.

Number of Standard Actions

The creature's Number of Standard Actions is used to determine how many characters are needed to defeat it. A creature with one Standard Action will usually be a match for one character. A creature with two Standard Actions is usually a match for two or three characters, and is designated as "1 per 2 PC". A creature with three or more Standard Actions will usually require the entire group to defeat it, and is designated as "Group".

In addition, certain powers allow for additional sources of damage without a creature spending a Standard Action. Examples include "Aura" powers such as Burning Aura and Freezing Aura that cause damage to anyone near the creature, the Fire Trail power which causes damage as part of the creature's movement, additional attack causing powers such as Second Attack, or a multiple attack power such as Multi-Strike. This does not include conditional attacks such as Air Dance, Swift Kick, or Momentum Attack, which may or may not reliably work in any given combat round. Decrease the number of creatures to 1 per 2 PC, or Group. If the creature needs further adjustment, add +1 or +2 PR to the Adventure Award. If the creature is at PR15 (Group), increase the Adventure Award to PR15 x2 (Group) instead of +1 PR, or PR15 x3 (Group) instead of +2 PR.

Adventure Award Adjusting Powers

+1 PR or decrease number of creatures to 1 per 2 PC	+2 PR or decrease number of creatures to Group
Burning Aura, Damage Shift, Freezing Aura, Fire Trail, Reinforcement, Second Attack, Second Charge, Second Shot, Second Weapon	Frenzy, Lightning Throw, Multi-Charge, Multi-Shot, Multi-Strike, Quickshot

Adjusting Adventure Award and Number of Creatures

By adjusting the Adventure Award downward and/or decreasing the number of creatures, a Gamemaster can use a creature from a higher Tier. For every -1 PR, decrease the number of creatures from 1 per character to 1 per 2 PC or 1 per 2 PC to Group.

By adjusting the Adventure Award up and increasing the number of creatures, a Gamemaster can use a creature from a lower Tier. For every +1 PR, increase the number of creatures from Group to 1 per 2 PCs or from 1 per 2 PCs to 1 per character.

Creature Scaling Table

PR	Tier	Award	Attribute Step	Attack/Power Rank	Damage Rank	Defenses/ Armor Rating	Death Rating
1	Initiate	3	5	3	5	0	19
2	Novice	8	7	5	7	2	35
3	Novice	25	8	6	8	3	45
4	Novice	55	9	7	9	4	55
5	Journeyman	100	11	9	11	7	65
6	Journeyman	200	12	10	12	8	75
7	Journeyman	330	13	11	13	9	85
8	Journeyman	570	14	12	14	10	95
9	Warden	1000	16	14	16	13	105
10	Warden	2000	17	15	17	14	115
11	Warden	2500	18	16	18	15	125
12	Warden	3300	19	17	19	16	135
13	Master	4500	21	19	21	20	145
14	Master	5700	22	20	22	21	155
15	Master	7500	23+	21+	23+	22+	165+

Caridad checks the Flying Ferret's statistics against the Creature Scaling Table. She sees its Dexterity Step of 10 puts it on the PR5 row, for 100 APs. Its Attack Step of 12 lands on the PR8 row, for 570 APs. The Ferret's Damage Step of 6 only earns it 8 APs, on the PR2 row. Its Physical Defense of 16, on the other hand, puts it all the way up on the PR12 row for 3300 APs. Finally, its Death Rating of 34 lands it another 8 APs. It has no Spells, Powers, Karma, or additional Actions. Adding it all up, Caridad comes up with a grand total of 3986, which Caridad rounds off to 4000. This puts the Flying Ferret at the middle reaches of the Journeyman Tier, around PR6 or PR7, in terms of session AP award (see the 1879 Gamemaster's Guide, p.166). If Caridad wants to use this creature against a Novice Tier group, she may want to only send in one ferret for the entire party.

Write Commentary

Once the creature's game statistics have been determined, a commentary must be written, describing the creature, and giving its common habitat, habits, and other characteristics. The decisions made about the creature's Attributes and Traits should provide a fairly clear idea of what the creature looks like, what it eats, where it hunts and lives, and so on. As an option, answer the following questions in order to help flesh out the creature.

- What does the creature look like?
- How does it mate / reproduce?
- Is it a pack animal?
- What does it eat?
- How well does it get along with other creatures?
- What does it fear?
- When does it hunt and when does it sleep?
- Can it be trained?
- Where can it normally be found?
- How does it relate to the other creatures in its ecosystem?

This step also requires a decision as to what, if any, equipment the creature may use. Most animals and non-sentient creatures do not use equipment, but a race of subterranean creatures might use stone spears and knives.

Finally, decide if the creature collects loot. If the creature is sentient, it may be guarding a cache of money and weapons of previous victims. If the creature is a popular target of adventuring groups, its loot may consist of the belongings of many previous challengers. Many creatures with magical abilities hoard magical treasure or have magical body parts, including horns, feathers, teeth, or blood. Decide what type of treasure a creature possesses, and its worth in pounds sterling and Adventure Points.

Rules

If applicable, add a rules section below the commentary. This section should describe how the creature behaves in combat and any rules unique to the creature. Some creature powers need special treatment, mostly with regard to characteristics such as range (Breath Weapons) and effect (Poisons). Some creature traits also need to be addressed in this section, e.g., Immunity and Vulnerability.

Adventure Hook

To give Gamemasters useful ideas on how to use the creature in their campaigns, add an Adventure Hook suggesting how to use the creature as a starting point for an adventure.

Example Creature

Flying Ferret

DEX: 10 STR: 5 TOU: 6 PER: 8 WIL: 7 CHA: 7
Initiative: 11 Physical Defense: 16 Actions: 1 Mystic Defense: 11
Attack (1): 12 Social Defense: 10 Damage: Physical Armor: 0
Bite (1): 6 Mystic Armor: 3 Death: 34 Recovery Tests: 3
Unconsciousness: 28 Knockdown: 4 Wound Threshold: 9
Movement: 9/11 Adventure Award: Journeyman Tier
Rules

The second Movement Rating is the creature's Flying Movement. One of the more annoying experiments to get loose from Dr. Wilhelmina Strauss's laboratory during the Promethean Raids, the Flying Ferret took to urban life in London like the proverbial duck to water. In some areas, coveys of ferrets have pushed out the native rock doves, or eaten them, in either case taking over their nesting grounds and feeding sites. The Metropolitan Board of Works has put a bounty of 1 shilling each on the flying ferrets, but given their speed, and enough wits to spot an obvious trap, they're deucedly hard to take. In form, they're a bit shorter of body than the standard European ferret, a bit closer to a stoat really, but narrow and light-boned. Their bat-like wings sprout from a second pair of shoulders just behind the first, with the membrane attaching halfway down the body for greater support. Their brownish fur and dark points blend in only passably well, much of London being in shades of grey due to the coal smuts. Besides being quicker than a greased snake, and preferring high cornices to burrows, they're not much different from their original breeding stock in terms of behaviour, diet, and so forth, but have very little fear of people. Strolling food vendors have learned to carry sticks in ferret-infested areas, to drive the beasts away from the goods on offer. The number of small lacerations suffered from a ferret snatching a roll or a bit of fried fish from someone's hand has risen alarmingly in Whitechapel.

Adventure Hook: The nurses at London Hospital, on Whitechapel Road, have been complaining about the flying ferrets roosting on the church across Oxford Street for some weeks now. The other day, one of the novices was scratched across her face, narrowly missing her eye, by a ferret in the process of stealing her lunch. Two other nurses have filed reports of ferrets stealing their caps. The Hospital is offering a bounty on the entire nest. The deacon of the church won't allow anyone from the Hospital to go climbing up on the building, saying he'll take care of it, but he hasn't yet, and the Hospital administration has complained to the Board of Works. Someone needs to get up onto the roof of the church in the middle of the night, put paid to the ferrets, and claim the reward from the Hospital without the deacon sending the coppers after them.

Earth Bestiary

This section details some of the creatures that have been identified on Earth since the Opening. Current theory assumes the same basic factor that causes humans to suffer LGF and transform into Boojums is also present in other species, resulting in fire-breathing turtles and dire oxen. In many cases, these creatures resemble those out of regional legend, but only to a certain extent. Perhaps once these creatures walked the Earth, and the legends are the distorted stories,

handed down through countless generations, that have survived.

We are deeply indebted to Dr. Max Keblovszkij, FRCVS, for permission to quote extensively from his book, Veterinary Field Guide to Folkloric Creatures of the British Isles, 1881 edition. Without Dr. Keblovszkij's efforts to collate his case notes and field observations, and publish a new version of his Field Guide each year, veterinary science would have nowhere near the grasp of the new species arising as a result of the opening of the Rabbit Hole.

We are also indebted to the Prophet Jones, also known as Rev. Edmund Jones of the Tranch, a dissenting minister at the Ebenezer Chapel at Pontypool. If not for his works, the Account of the Parish of Aberystruth, and the Relation of Apparitions of Spirits in the County of Monmouth and the Principality of Wales, initially dismissed as the works of a far too credulous recorder of folklore, we would have much less understanding of the folkloric creatures of Wales. These works, so hard to come by in their original printing of just two hundred volumes each, have now been collected and revised by the Prophet Jones' nephew, Ebenezer Jones of Trevecca, as the Accounts of the Spirits of Wales, and re-issued in a leather-bound edition of two thousand copies. The revised volume maintains the original folklore but sets it next to field observations and accounts with two or more witnesses of the actual folkloric creature, noting the differences between the lore and the creature, which can be critical to the survival of those encountering such creatures.

Afanc

The afanc (pronounced avank) gets its name from a Welsh legend of a lake monster, but may be found throughout Britain proper, and has become an especial problem in Cornwall. While it has a shell like that of a turtle, it cannot withdraw into it. Its head and legs more closely resemble a beaver or stoat, covered with heavy dark fur. Its short, blunt snout conceals teeth the size of daggers. While its claws are likewise massive, the afanc uses them only for digging and for tearing apart prey it has already slain, unable to bring them to bear as weapons due to its ponderous build. At its fullest growth, the afanc approximates a cow in size and weight, resulting in a prodigious appetite for meat that makes it a fearful creature indeed.

One might not expect a beast as great and slow as the afanc to be an ambush hunter, but like a crocodile, it lies in wait in the water, just the tip of its snout and its eyes visible. When prey comes to the water's edge, it uses its fiery breath to maim its target, then lunges from the water to finish off its victim with its bite, easily a match for a snapping-turtle in power and for a wolf or jackal in brute savagery. Given its size, it can readily consume a calf in one meal. While thankfully, like many large predators, it dines only once per day, the losses to a dairy-cattle herd in a week can drive a farmer to bankruptcy.

DEX: 5	STR: 10 TOU: 10	PER: 3 WIL: 6 CHA: 5
Initiative: 5	Physical Defense: 10	Actions: 2 Mystic Defense: 7
Attack: 9	Social Defense: 7	Damage: Physical Armor: 8
Bite (4): 14	Mystic Armor: 7	Death: 100 Recovery Tests: 5
Unconsciousness: 84		Knockdown: 12
Wound Threshold: 16	Movement: 4	Adventure Award: Warden Tier

Powers: Breath Weapon (Fire): 11; Durability: 3

Rules

The afanc may only use its breath weapon when at least partly submerged in water. It takes a -3 Step penalty to its Breath Weapon if the water is not its home. If in its home pond or other body of water, the afanc cannot be forced out except by a pair of Ychain Banog, a breed of oxen unique to Wales, two fully grown bulls that have not been bred. Two successful Grappling attacks must be made to secure ropes or chains to the afanc. Until the slack is taken up and the bulls begin to pull, the afanc may make an attack against the rope or chain to attempt to escape it or break it, going against the Barrier Rating of the rope or chain or the result of the Grappling attack, whichever is higher. Once the bulls begin to pull, the symbolic magic of the act takes effect and the afanc is drawn forth from the water without any further Tests required.

Adventure Hook: The Burton Textile Mill uses a water turbine to power its factory equipment, driven by a millrace that used to feed a grist mill on the same location. An afanc has moved into the millpond, and has been feeding off the area's deer, the occasional stray dog, and in one tragic case a mill worker who went down to the millpond for a smoke before her shift. The millrace and the factory are both of wooden construction, and while the one stays wet and is thus more or less resistant to the afanc's fiery breath, the other is full of highly flammable materials. The Burton family has offered a hundred pounds to anyone who can remove the afanc from the millpond without setting fire to the factory, with the caveat that any damage to the mill will be deducted from the reward. The mill worker's family is offering ten pounds to anyone that can retrieve enough of their relative's remains to give a proper burial.

Bodmin

Taking its name from the Cornish moor where its folklore says it originated, the bodmin appears as a pale greyish-brown cat, ideally coloured for vanishing into the moorland. For many generations, rumours circulated through Cornwall that panther-like cats were roaming the area, and responsible for the occasional partly eaten sheep or cow being found. Scientists dismissed the idea out of hand, citing the lack of prey animals on Bodmin Moor, and in the region in general, to support a viable breeding population of large predators. Now, however, we know the bodmin can simply drop down to the size of a housecat when prey is scarce, and live comfortably on mice. When a sheep wanders away from the flock, the bodmin can surge up to panther size, or to the size of a bull mastiff for larger prey, such as cattle. A solitary hunter, like most cats, the bodmin only crosses into the territory of its neighbours during the mating season. The females give birth generally in the early spring, to two and sometimes three kits. As with most wild cats, the bodmin is shy of people, and will either run, or use its size changing ability to drop down into the underbrush and slip away. Only when confronted directly does it normally choose to fight, although a female with young is, as with many species, not to be trifled with.

DEX: 8 / 7 / 6 STR: 4 / 5 / 6 TOU: 5 PER: 4 WIL: 5 CHA: 4
Initiative: 10 / 9 / 8 Physical Defense: 13 / 10 / 6 Actions: 1 Mystic Defense: 6
Attack: 10 / 9 / 8 Social Defense: 6 Damage: Physical Armor: 3
Claw/Claw/Bite: 6/6/8 / 7/7/9 / 8/8/10 Mystic Armor: 4
Death: 45 Recovery Tests: 2 Unconsciousness: 37 Knockdown: 4 / 5 / 6
Wound Threshold: 8 Movement: 8 Adventure Award: Journeyman Tier
Powers: Durability (3); Transform Self

Rules

The bodmin's stats are for its small, normal, and large forms, in that order. No Test is required for its Transform Self power, but it can only use the power once per combat round, and can only shift one size stage at a time, thus from Small to Normal, or Normal to Large, but not from Large directly to Small.

Adventure Hook: The party has been engaged to intrude upon a factory in the middle of the night and cause a small bit of mischief, nothing permanent, just enough of a problem to stall production for a few days. Unknown to them, one of the factory cats is a bodmin, which has recently delivered two kits. She will not take kindly to the intrusion.

Bridgebane

"Oo's 'at trip-trappin' across me bridge?" Children all across Britain have heard this line in the nursery, and children elsewhere in the world have heard variants of it, for generations, the story of a troll who lives under a bridge and demands a fearful toll of those who would cross, until confronted by a determined hero, often but not always a large billy goat. While we now have trolls of a quite different sort living among us, people whom LGF has granted tusks, horns, and massive size, these are just our neighbours, still people and not likely to make unruly demands of pedestrians. The bridgebane, on the other hand, does just that.

Short like a dwarf, squat and powerfully built, the bridgebane has both tusks and fangs, and quite a few more teeth besides, and a voracious appetite for raw meat. Its arms, twice as long as its legs, can reach up over the edge of a bridge or cliff or pier, raking its intended victim's legs with massive claws. Once the victim is down and bleeding, the bridgebane swings up and finishes the job. From a distance, and with a bit of fog, the bridgebane's profuse body hair and short legs led to it being mistaken for a dwarf in a fur coat at its first appearance, at the old Stone Bridge in Tyne below the High Level Bridge, causing a hue and cry to be raised for a peculiarly dressed murderer. Three dwarf factory workers were set on by a mob and nearly beaten to death before constables could pull them free. The next night, with all three men in hospital, the bridgebane struck again, and this time the wagon driver got a good look at what cut his horse's legs out from under it.

Bridgebanes have a rudimentary sort of intelligence, and will sometimes challenge people crossing its hunting ground rather than straight-up ambushing them. The well-prepared traveller, who knows of the probability of a bridgebane in the area, can buy off their life with a few pounds of cheap chuck, tossed over the side to the creature. This doesn't always work though, as sometimes the challenge is just a prelude to an attack, as a cat will let a mouse have a moment of freedom before pouncing again. Hunting down a bridgebane can be difficult, as they ball themselves up in the dark recesses under the bridge or in a cave on the side of the cliff. Finding them is the easy part of the task though, as attacking them in such close quarters is terrifically dangerous. Smoking out a bridgebane and shooting it from a fair distance requires a well coordinated team and the ability to make a clean shot through a haze of smoke.

DEX: 8	STR: 10	TOU: 9	PER: 4	WIL: 5	CHA: 4
Initiative: 9	Physical Defense: 11		Actions: 2		Mystic Defense: 5
Attack: 13	Social Defense: 5		Damage:		Physical Armor: 5
Claw/Bite: 15/18		Mystic Armor: 5	Death: 55		Recovery Tests: 4

Adventure Hook: The old bridge, built of stone in the 1500s, collapsed last spring. A new bridge, of proper steel, was started this spring, but a bridgebane moved into one of the piers as soon as the caissons were closed and the spans started to be added. Construction has come to a halt after the loss of three workers. The firm putting up the bridge is frantic to make their next deadline so they don't lose the contract, and is offering £20 to anyone who can go out on a partly completed bridge and get rid of the beast.

Buggane

While the buggane gets its name from a bestial ogre in Manx folklore, bugganes have been spotted on the mainland, not just the Isle of Man, much to the sorrow of those encountering them. Averaging eight feet tall, bipedal, with a thick black pelt, heavy claws, and tusks, they vaguely resemble an unfortunate cross between a snark and an American black bear. Facially, though, they're more like a giant mole, with deep set squinty yellow eyes, a long snout with heavy whiskers, and a receding skull that's streamlined for underground travel. They generally make their home in a burrow or handy underground shelter, such as an abandoned coal mine or the basement of a decaying building. Bothering a buggane in its home results in its using Aggressive Attack every round until the intruders are gone, rather like disturbing a very large badger.

Bugganes have a particular hatred for religious symbols and structures belonging to traditions newer than the Picts, which includes pretty much everything in the British Isles that's not a dolmen circle or a mound. While it's somewhat dubious that a buggane actually tore the roof off St. Trinian's Church back in the 14th Century, they react with savage hostility when finding religious structures, shrines, or people carrying obvious symbols in their territory. The best advice for someone attacked by a buggane is to break the beast's line of sight, put away the symbol, and then show back up and toss the creature a bit of food, preferably a sweet. Thus distracted, the buggane may forget about the icon it found so objectionable, assuming of course that while its line of sight to one person is being broken, another isn't laying about its head with a cudgel. Bugganes often take bits of the smashed items back to their burrows, and create a small hoard with them. Why, nobody knows.

They cannot cross sanctified water, regardless of the Faith that consecrated it, but this applies only to free-standing or flowing water, not to muddy ground made by pouring out a blessed vial. Churches on the Isle of Man have been installing pipes a yard or so out from the building, in a closed circle, to surround the building with holy water without having to dig a moat.

DEX: 6 STR: 11 TOU: 9 PER: 4 WIL: 5 CHA: 3
Initiative: 6 Physical Defense: 9 Actions: 3 Mystic Defense: 7
Attack (2): 13 Social Defense: 5 Damage: Physical Armor: 3
Claw/Claw/Bite: 14/14/12 Mystic Armor: 8 Death: 57
Recovery Tests: 4 Unconsciousness: 48 Knockdown: 11
Wound Threshold: 14 Movement: 6 Adventure Award: Journeyman Tier
Loot: Broken religious relics and damaged sacred items

Rules

Bugganes are Immune to Fear and Charm attacks, so Battle Shout simply won't work, and resistant to Social attacks in general, giving them a slightly higher Social Defense. They're highly resistant to magical attacks, which boosts their Mystic Defense and Mystic Armor.

Adventure Hook: St. Andrew's in the Vale, as if it didn't have enough problems being the only Catholic church in a staunchly Protestant county, has a new shrine icon of St. Andrew arriving in just three days. It's a massive piece, the size of a door, and will have to be carried up from the train station three miles away in an oxcart, as the road, hardly more than a sheep-path, is just not up to handling a steam lorry. While it'll be draped in canvas tied down with sturdy rope, the priest is worried about the buggane that has taken up residence in the barrow-entry two thirds of the way along. Father Nicodemus would rather not disturb the creature, much less harm it, although he's a bit dubious about its possible infernal nature, and worried it may be out and about and take exception to the workmen's crucifixes and his rosary, if not the icon itself. The bishop, who's come out to oversee the installation, has no such qualms, believing the buggane to be a fiend from Hell and a worthy target for pious hunters, and wants it exterminated before the icon arrives. The village folk don't want a hunt for a large mystical creature going on in their vicinity, and would rather everyone just calm down and deal with trouble if it arises. All three of these factions are looking for assistance.

Glaistyn

The glaistyn (pronounced glaysh-tin), as far as we ken, are a race of shapeshifters living in the ocean, who come ashore as horses or as humans looking for breeding stock (maybe). Where they were the past thousand years, nobody knows, although there's enough legends of something like them that maybe they were there all along, and just couldn't appear but once in a very great while until the magic returned for serious. That's as may be.

What is known is the glaistyn come wandering up out of the surf looking for a likely young lad or lass, they're not picky. They get close, and read the person's memories to find out what sort of person they're most like to be attracted to, then transform themselves into a reasonable facsimile. Whether lad or lass themselves, the glaistyn always keeps their hair full and long, so they can hide their ears, which stay a horse's whether they're in human or equine form. There's some that say the coastal folk habit of caressing the ear of a loved one comes from checking to make sure it doesn't come up to a point.

If the lad or lass finds the glaistyn comely, and likely they will, the glaistyn turns on the charm, giving their target's attitude a little nudge here, a little nudge there, until soon enough they're agreeing to go sporting in the waves, and that's when they're done. As soon as the lad or lass's foot touches the surf, the glaistyn takes control of them, and marches them straight into the ocean, never to be seen again by those on shore. What happens to them, really, nobody knows, but folk like to think that their lost wee laddie or lassie are having babies with the glaistyn rather than being eaten by them.

While glaistyn also come ashore looking for prime horseflesh, and will enchant a stallion or mare into the surf the same way they seek humans, they don't seek out horses nearly so often. Sometimes, they'll appear as a particularly friendly and attractive steed, enticing a human to ride them bareback, and off they go into the surf to claim their victim. Why they don't target Boojums isn't yet known. Those that say Boojums are too ugly for the glaistyn get a loud harumph from the elves, growls and possibly challenges from the dwarves and snarks, and laughter from the trolls, who know that they're just too big to carry off.

Horse Form

DEX: 7	STR: 8 TOU: 9	PER: 7 WIL: 7 CHA: 9
Initiative: 7	Physical Defense: 8	Actions: 1
Mystic Defense: 10	Attack (3): 11	Social Defense: 13
Damage:	Physical Armor: 0	Bite/Trample: 11/16
Mystic Armor: 3	Death: 55	Recovery Tests: 4
Unconsciousness: 46	Knockdown: 10	Wound Threshold: 14
Movement: 10		
Human Form	DEX: 7	STR: 6 TOU: 9
PER: 7	WIL: 7	CHA: 9
Initiative: 7	Physical Defense: 10	Actions: 1
Mystic Defense: 10	Attack (3): 9	Social Defense: 13
Damage:	Physical Armor: 0	Fist: 6
Mystic Armor: 3	Death: 55	Recovery Tests: 4
Unconsciousness: 46	Knockdown: 6	Wound Threshold: 14
Movement: 6		

Adventure Award: Journeyman Tier

Powers: Control Animal (8); Control Person (8); Improve Attitude (7); Read Memories (7); Transform Self (7)

Rules

The glaistyn's Transform Self power can only be used when their feet are in water, and can only switch them between their equine and human forms. Likewise, their Control Animal and Control Person powers can only be used when the target has at least one foot in water, or when a human target is mounted on an equine-form glaistyn and the glaistyn's feet are in the surf. Their Read Memories does not require touch, and can be used at a range of thirty yards.

Adventure Hook: There's been two recent disappearances at Brighton Beach, one a young man from Sheffield and the other a young lady from Gloucester, both of whom had come down to Brighton for the bathing season but had no other connection to one another. Both were last seen in the vicinity of the surf and in the company of an attractive young person (a woman and a man respectively) who now cannot be located. Rumours are beginning to fly that there's a glaistyn taking advantage of the warm-weather crowds to do a bit of hunting. The tourist bureau and the railways are both offering a tidy sum for anyone who can put paid to the situation before business, already slacking off in the middle of what should be the most profitable part of the year, takes a critical tumble.

Gryphon

These four-legged creatures combine a lion's body with the head and wings of a large eagle. The gryphon's front legs are covered in feathers and end in sharp talons. Its hind legs are properly leonine, covered in soft fur and ending in paws. The gryphon stands twelve hands at the shoulder, is five to six feet long, and has a wingspan averaging twenty feet. It may be found anywhere in the British Isles and northern Europe, although not as far as Scandinavia, being somewhat averse to the deep cold. Gryphons make their nests in the mountains, the steeper and more craggy the better, and

generally act very much like horse-sized birds of prey.

While theoretically the gryphon could be tamed and used as a mount, thus far attempts to do so have resulted in breakage and bedlam, more than a few maimings, and several fatalities. Gryphons actively resist most techniques used in breaking horses and other land-based mounts. Falconers who have been consulted have suggested raising the gryphon from a cub, the way a falcon or hawk is raised from an egg. Some experiments in this are under way, mostly by the military of Britain and Prussia, who have the resources for such long-term efforts. Consultations have also been held with Saurid hapatvnorefvar, in hopes that the techniques they use to tame and ride the pteranodon-like creatures of the Gruv might be useful. Not much has come of that as of yet. Of especial note is the fact that gryphons cannot be stabled near horses. One simply does not put a massive predator where the horses might smell it on the breeze without causing the aforementioned breakage and bedlam.

DEX: 7 STR: 8 TOU: 7 PER: 4 WIL: 8 CHA: 5
Initiative: 9 Physical Defense: 10 Actions: 2 Mystic Defense: 6
Attack: 11 Social Defense: 10 Damage: Physical Armor: 4
Bite/Claw/Claw: 16/14/14 Mystic Armor: 4 Death: 58
Recovery Tests: 3 Unconsciousness: 48
Knockdown: 8 Wound Threshold: 11
Movement: 10 / 16
Adventure Award: Journeyman Tier
Powers: Aerial Combat (7): 12; Down Strike (5): 13; Durability (2); Enhanced Sense (Hearing): 2; Enhanced Sense (Sight): 4; Social Immunity

Rules

Gryphons take no penalties to sight-based Perception Tests regardless of distance. If the target is within line of sight, the gryphon can see it clearly. The second Movement Rating is the gryphon's flying speed.

Adventure Hook: A mated pair of gryphons has nested on the cliffside overlooking the exit of a railway tunnel. Their two cubs, having recently fledged, have taken to chasing the trains going into and emerging from the tunnel. Thus far, there's been no collisions or damage, but the railway is highly concerned about the risk. The passengers have been panicking, and some demanding their fares refunded. Shooting the juveniles would bring down the wrath of the parents, and potentially cause tremendous damage and loss of life. The likelihood of taking down all four gryphons in a short enough time to prevent a counterattack, without use of military ordnance, is vanishingly small. A proposal to drop dynamite on the nest from a Giffard was rejected outright, due to the possibility of causing a landslide and blocking the tunnel. Dr. Keblovszkij has advised that chasing off the gryphons from their nest would be exceedingly difficult, and it's best just to wait until the younglings leave on their own, at which point the nest will be abandoned. The railway isn't satisfied with that answer. Have you got a suggestion?

Mauthe Doog

A massive black dog, nearly the size of a calf, the mauthe doog gives its loyalty where it sees fit, which is not always the most comfortable for those receiving it. If treated properly, as one would treat a massive guard animal, the mauthe doog will take care of its domain, coming and going as

it believes its duties require. Those it finds trespassing, who do not bear the proper token or have not been introduced properly, may or may not get a warning bark before the dog is upon them.

One of the more notable mauthe doogs resides at Peel Castle, on the Isle of Man. It appears in the primary guard chamber each evening, as soon as the first gas-lamp is lit, claiming a space by the hearth, and vanishing when the last light is extinguished in the morning, leaving through the wall as often as by the door when something on the property attracts its attention. The castle's guard force calls it Peveril, and leaves out a bowl with their dinner scraps each night. For the most part, this has worked out quite well. One guard, though, having had more beer than his ration properly allowed, defied procedure, snatched up the keys from the guard desk, and went out to lock up the castle gates on his own, instead of with a partner as procedure decreed. A ferocious barking was heard from the area of the first gate, and the guard returned at a dead run, ashen of complexion and in a lather of fear, cast down the keys before the guard-captain, and fell dead on the floor. There have been no violations of procedure since.

DEX: 5	STR: 6	TOU: 5	PER: 4	WIL: 4	CHA: 4
Initiative: 6	Physical Defense: 7 / 12		Actions: 1		Mystic Defense: 7
Attack (3): 8	Social Defense: 8		Damage:		Physical Armor: 0
Bite (3): 9	Mystic Armor: 1		Death: 29		Recovery Tests: 2
Unconsciousness: 24	Knockdown: 6		Wound Threshold: 8		
Movement: 7	Adventure Award: Novice Tier				
Powers: Astral Sight (12); Ethereal; Social Immunity					

Rules

The mauthe doog can switch between its physical and ethereal forms as a Free Action, taking no Strain. When ethereal, its Physical Defense is increased, it becomes immune to ranged weapons, and takes damage from melee weapons based on Willpower rather than Strength. Its Social Immunity boosts its Social Defense by +3 under normal circumstances, and gives it another +3 to its Social Defense against fear, intimidation, or domination.

Adventure Hook: Not recognizing it for what it was, the day shift warehouse crew at Findley's Iron and Steel chased the big black dog out, and threw scrap wood at it. The night crew foreman called it a good doggie, and gave it part of his sausage roll. Now the dog won't let the day crew back into the warehouse. Chucking a brick at it did no good. The brick went right through, then the dog turned solid again and nearly tore off Nesmith's foot in retaliation. The night shift foreman has been able to introduce enough day shift people who weren't there the day the dog was run off to keep the warehouse limping along, but half the shift can't report for work. Findley's could just fire the offenders, but that would require replacing half the shift, including the foreman, and wouldn't go over well with the rest of the workers. Besides which, Mr. Findley will walk to Hell and knock for admission before he lets some bloody spirit dog run his warehouse. Anyone with an idea of how to either convince the self-appointed guard beast that the day crew should be forgiven, or run it off once and for all, should apply at the central office.

Redcaps

Legend tells us that redcaps are brutal gnomes who get their name from dipping their woollen caps into the blood of their victims. The fact that dying a cap with blood would turn it rusty brown,

not red, should tell you how reliable the legend is in this case.

First off, they're not gnomes. They're not even warm blooded. Redcaps are the mobile fruiting bodies of a saprophytic fungus. They rarely occur in the singular, normally sprouting in rings of at least three. What appears to be a bright red pointed cap is actually the fungal cap, the actual top of the redcap's head. The annulus below the cap folds down over the top end of the stalk in the appearance of a face. Below that, the stalk sprouts arms off the side, ending in rudimentary hands with claws like a badger, then bifurcates down to just above the volva, creating a pair of stumpy legs. The fruiting bodies sprout, like most fungi, after a good soaking, usually with rain, growing to a foot and a half high before maturing, but they'll grow bigger and faster if the mycelium, the network underground that forms the main body of the fungus, gets soaked with mammalian blood.

The primary purpose of the fruiting bodies is to provide decaying organic matter for the mycelium to feed on. When anything warm blooded strays within range, the fruiting bodies separate from their volvae and go hunting. Anything they kill, they bring back and dump on top of the mycelium. The redcaps then emit a burst of reproductive spores and die, thus spreading the fungus and providing more material for the mycelium to recycle.

Besides being fast, tough, and murderous, redcaps can release spores with a variety of effects – fear, paralysis, hallucinations, poisoning, or homicidal rage. These can be puffed out in a cloud, spreading according to the breeze, or directed with a stream of air from rudimentary organs in the stalk vaguely resembling lungs. The annulus flutters in a distinctive way when the redcap takes in air to propel its spores, disturbingly resembling a tiny person drawing a deep breath. Anyone seeing a redcap do this is advised to flatten it with a shovel before it can exhale, or run like the wind. Getting caught in a spore cloud is a guaranteed way to make death by redcap that much more miserable of an experience.

It should be noted that redcap rings are exempt from the burn restriction orders put out during dry weather. Anyone spotting a redcap ring is welcome to set fire to it, although they ought to try to obtain a piece of one of the fruiting bodies first as evidence.

DEX: 11	STR: 8	TOU: 7	PER: 3 WIL: 3	CHA: 3
Initiative: 12	Physical Defense: 16		Actions: 3	Mystic Defense: 4
Attack: 16	Social Defense: 4		Damage:	Physical Armor: 3
Claw: 12	Mystic Armor: 3		Death: 41	Recovery Tests: 3
Unconsciousness: 34			Knockdown: 9	
Wound Threshold: 11	Movement: 4		Adventure Award: Journeyman Tier	

Powers: Spores, Attack Step 18, Effect Step 16, effects may vary. Range 6 foot radius or 15 foot targeted stream (requires one combat round preparation before firing).

Loot: Items left from previous victims

Rules

Redcaps will attack anything the size of a fox or larger that gets within fifteen feet of their ring. Spotting them in the forest, in the heavy undergrowth the mycelium prefers, requires an Awareness (10) Test.

Adventure Hook: The groundskeeper of the local cemetery just filed a report with the constable, having spotted a redcap ring sprouting down at the lower end by the woods. It's raining. By the time anyone gets there with Chinese Dragons, the fungus could have spread into the graves

for several rows. Who knows how many redcaps there may be awaiting when the cleanup crew goes in. They're offering fire-department rates to anyone that wants to pick up a shovel and help stamp out the little buggers.

Selkie

Whether selkies derive from humans (or seals) undergoing LGF, or some other origin, only they know, and they're not talking about it. While they do not shed their skins in order to shapeshift, everything else from the folklore about these human/seal shapeshifters seems to be true. In seal form, they prefer the northern Atlantic, and rookeries on distant, rocky islands that are hard to reach by boat. In human form, selkies tend to integrate with a human population, preferably an isolated fishing village or other small habitation where they are known to the locals, who will not reveal them to the wider world. This allows them to more easily keep their human-form clothing and possessions stored away safely, such as in a boathouse locker, where they can dress/undress and shapeshift in private. They work with their human neighbours and relatives in traditional occupations, as fishermen, boat crew, dockworkers, and the like. Little gives them away; everyone in their village may smell of fish and salt water, and being somewhat heavy-set and round of feature isn't that distinctive.

> *Selkies may be a kind of Boojum all of their own, which could explain why you don't see elf or snark selkies. LGF only produces one kind of strangeness in a person, and a snark selkie would be two kinds of strange. And afore you give me grief for calling snarks strange, note my name.*
> *– Gwenhyfer Renteze*

Selkies and their human relatives tend to be highly protective of each other, as families generally are, and their immediate environment. Humans related to or part of a village with selkies will not hunt seals, and will protect their rookeries, without explaining why. Selkies have been known to sink whaling and seal-hunting vessels without warning. As the British Empire depends for most of its economic and military might on the ocean, conflict with the selkies is inevitable.

Of note, children of selkies are always selkies, while children of a selkie and a human are normally (approximately 80%) selkies. Watch for the children whose parents rush them inside, or away from the water, or into a sweater or coat when strangers enter the village. Those will be selkies nine times out of ten. While there's not been enough time to establish a pattern, the Portal having only opened three years ago, selkies in the folklore do not migrate away from shore, and tend to stay close to their home villages and rookeries in general. The British Navy may find this a barrier to recruiting them, if they can identify them as such for certain. It's hard to determine someone's nature when they can quietly slip off the pier or over the gunwale and into the ocean while you're arguing with their neighbours, or they're out to sea legitimately aboard a fishing trawler.

Seal Form

DEX: 5 / 9* STR: 8 TOU: 8 PER: 5 WIL: 6 CHA: 5
Initiative: 6 / 12* Physical Defense: 7 / 13* Actions: 1 / 3* Mystic Defense: 8
Attack: 6 / 10* Social Defense: 7 Damage: Physical Armor: 0 / 3**
Bite / Charge: 12 / 18* Mystic Armor: 3 Death: 79 Recovery Tests: 4
Unconsciousness: 66 Knockdown: 8 Wound Threshold: 13 Movement: 6 / 12*
Adventure Award: Journeyman Tier

Powers: Durability (3); Resist Temperature (Cold) (10); Transform Self
Loot: Whatever personal possessions the selkie has accumulated

Rules
* First value is on land, second value is in water.
** First value is human form, second value is seal form.

For most human form values, use the base Human statistics from the 1879 Players Guide, or any handy human GMC, to represent variety in the human forms selkies have across their population. Durability may vary from selkie to selkie in both human and seal forms. All Powers are retained in both forms. Selkies in human form are rounded, plump, a bit graceless but strong, with broad faces and large eyes.

Selkies may only shapeshift in close proximity (50 yards) to enough salt water to immerse themselves in. Fresh water will not do. Carried items, such as human clothing, do not shift with the selkie.

Adventure Hook: The people of a small village in the Orkneys need assistance from someone with both firepower and discretion. A foreign ship raided a seal rookery in the North Sea, just outside of British territorial waters. While the hunting party was driven off, they fired a few parting shots and promised they'd be back in greater force, to skin every last seal on the island. Besides the island being in international waters, there's other reasons the villagers don't want to go to the Navy for help. They've got relatives on that island, and would like to keep that from any government. They can't offer much in ready coin, but a favour owed by a selkie clan could be a powerful thing.

Skogkatt

The northern parts of the British Isles have much in the way of Scandinavian heritage, some from trade, some from colonists, and some from raids by Danes going a-Viking. In the Orkneys, the population remains over half Norwegian in ancestry despite four centuries of being under Scottish rule and still leaning Jacobite a hundred years later.

In the hills between Murra and Rackwick, and among the crags on the western coast of Scotland from Kearvaig all the way down to the Isle of Mull, the skogkatt has found a new home. Originally from Norway, this mountain dwelling cat looks from a distance like a hefty long-haired barn cat, but up close turns out to be the size of a Welsh sheepdog. Farmers report the skogkatt as amiable, but independent as cats tend to be and not amenable to domestication. If treated properly, with food and water set out as one would with a working dog, and given the run of the farm, including permission to come into the house on cold nights, the skogkatt will form a working relationship with the farming family, and restrict its hunting to vermin and small predators, keeping foxes out of the henhouse and rats out of the grain. The skogkatt's true distinction, though, lies in its climbing ability.

All cats, with very rare exceptions, climb, and enjoy high places. The common house cat may of times be found atop the wardrobe. The skogkatt, however, takes this to extremes, and with considerable ability. Not for the skogkatt the top of a fence post, no, although it may deign to perch there briefly, surveying the pasture with regal disdain. No, the skogkatt ascends to the roof

of the barn, and takes up its post above the hayloft door, sitting as comfortably on the top end of the highest beam as a cook might on a kitchen stool. What's more, the skogkatt attains these heights with precious little effort, walking up the barn wall as easily as you or I might stroll down the pavement. In the wild, they have been observed to wander casually up sheer cliffs that a person could not attain without pitons and a rope. Some form of magical effect may be involved, but thus far nobody has investigated, there being more important things for magicians to do than determine how a cat climbs a wall.

DEX: 7 STR: 6 TOU: 6	PER: 4 WIL: 5	CHA: 3
Initiative: 7 Physical Defense: 10	Actions: 1	Mystic Defense: 5
Attack (3): 9 Social Defense: 4	Damage:	Physical Armor: 3
Bite (6): 12, 2 x Claws (4): 10	Mystic Armor: 3	Death: 34
Recovery Tests: 3	Unconsciousness: 28	Knockdown: 6
Wound Threshold: 9 Movement: 8	Adventure Award: Novice Tier	

Powers: ClimbingS (5): 12, Enhanced Senses (Listen, Sight) (4): 8, Great LeapS (4): 11, Locate Target (5): 9, Low-Light Vision, Sense Magic (5): 9, Silent WalkS (4): 11, Sprint (2)

Rules

The skogkatt refers a Pouncing Attack from ambush, and will not chase prey more than two combat rounds. Its Climbing Target Number is reduced by two rows on the Climbing Target Table (1879 Gamemaster's Guide, p.227), so that it treats a Sheer Surface (15) as a Rocky Cliff (9), a Wall (12) as a Pole (7), and does not require a Test to climb a pole or tree.

Adventure Hook: The vicar of the local Anglican church has complained to the constabulary of a very large cat in the steeple, ringing the bell at odd hours. The constable who climbed up to humour the old man came back down more quickly than was really safe, swearing that there was a tiger in the belfry. A local farmer bought a skogkatt from an unscrupulous animal dealer, hoping to settle it on his farm, but it's wandered off, and is living in the highest structure in the village. When it gets bored, it plays with the bell rope. Technically, the farmer owns the skogkatt, as he does have a bill of sale from the dealer, but the animal was caught in the wild in Scotland in violation of the poaching laws. Some good citizen who could help the constabulary sort out the mess would be owed a favour.

Water Sheep

Imagine you are a shepherd, and you go out one morning to find a tenth of your flock in the bay. Not drowned and floating, no, submerged and contentedly grazing on seaweed. Your faithful sheepdog runs up and down the shingle, barking frantically, but of course the sheep cannot hear her. How will you get them back onto land before the tide goes out and the undertow sweeps them out to sea? Can you, even, or are they solely aquatic now?

That was the scene, and those were the questions, all along the coastlines of Britain, France, Spain, Portugal, and Italy, as a breed previously believed to be a legend (and not a particularly clever one at that) made its post Rabbit Hole reappearance. Thought to be a Roman fairy tale, the water sheep proved to be quite real indeed, in all of its golden wooled, web footed, amphibious glory. But how to build a paddock for sheep out in the water?

The answer came from an equally old source, fishing, which provided the ideas of weirs and

seining nets. All along the coastline, wherever the Roman Empire had colonised, land-dwelling farmers went into the sea and set up fenceposts, wove wicker and hawthorn and whatever else was ready to hand, and strung heavy netting with a mesh open enough to allow fish and other inlet natives in and out, but keep the sheep penned. This solved part of the problem, but not all of it. Sheep draw predators, and water sheep are no exception. The approach of anything large enough to maybe represent a threat results in the sheep stampeding out of the water to escape ashore, or vice versa. Not all farmers were able to capture their wayward animals, some of whom have survived in the wild. Railways close to the water have had to build sheep fences to keep amphibious flocks off the tracks. And how to herd animals in the water? While sheepdogs can swim, they're not particularly effective in the ocean.

Besides its golden colour, however, the fleece of the water sheep is naturally fire resistant, not quite as much so as asbestos, but won't cause lung disease just from having it about. Slowly but surely, water sheep wool is becoming more popular as an alternative to asbestos for insulation and firebreaks, as well as for turnout coats for firemen, work smocks for foundrymen, and other applications where fire and heat are dangers. The backlash from the asbestos mining industry has begun. Parliament may have to rule on the issues involved in the next session or so.

> *Lucy Anne Evelyn Deane Streatfeild, a factory inspector for the Home Office, was the first to classify asbestos as a hazard. Mesothelioma is not treatable. Secondary exposure, such as doing the laundry of asbestos workers, is nearly as hazardous as primary. Gas and electric fires have introduced asbestos into the home, as insulation in the firebox and around the heating elements, leading to an expansion of mining and processing, and exposure on the part of the average person.*
> *– Percival Squallow*

DEX: 4 STR: 5 TOU: 5 PER: 3 WIL: 3 CHA: 3
Initiative: 4 Physical Defense: 5 Actions: 1 Mystic Defense: 4
Attack (1): 5 Social Defense: 4 Damage: Physical Armor: 2
Headbutt (3): 7 Mystic Armor: 2 Death: 29 Recovery Tests: 2
Unconsciousness: 24 Knockdown: 5 Wound Threshold: 8
Movement: 7 / 5 * Adventure Award: Initiate Tier
Powers: Sense Danger (5): 8; Sprint (4)

Rules

Water sheep take half damage from fire-based attacks, and cannot be set ablaze by anything less than dragonfire. They may remain submerged indefinitely, but will leave the water for land if the food supply runs low, or a predator appears, or something spooks them.

* The second number is Swimming.

Adventure Hook: The party gets a panicky telegram from a Weird Scientist of their acquaintance, Terrible infestation, Come at once, and the address of a large estate out in the country. On arrival, the Weird Scientist explains the Aristocrat who owns the estate is her patron. She's here to demonstrate her new amphibious submersible, a vehicle capable of travel on land, on the water's surface, and below the waves. She came down a couple of days early to set up. This morning, she awoke to find a flock of water sheep had wandered in from somewhere and taken up

residence on the estate's private lake, and on the pier where she'd set up her vehicle and equipment. They're underfoot, and she can't start up the vehicle and do the test run, that she really needs to do today, for fear of injuring or killing someone's sheep. They don't have ear tags, or identifying marks that she or the groundskeeper could find. He's out making the rounds of the nearby estates to see if anyone's missing a flock. Can you please get them out of the lake so she can do her trials before tomorrow's demonstration? In return, you get to stay at the posh estate as her crew for a couple of days.

Yeti

Legends have persisted in the Kingdom of Nepal and the surrounding region for generations of a feral biped living in the high forests and lower slopes of the Himalayas, a species with heavy fur to protect it against the cold and the snow. Known variously as the bun manchi (Nepali, wild man), michê (Tibetan, man-bear), mi-go (Tibetan, wild man), or yeti (Tibetan, cliff bear), the native peoples disagree as to whether the creature is ursine or hominid. Some of the tribes that still follow a shamanic path believe it to be their God of the Hunt. The Sherpas call it yeti and believe it to be a dangerous beast, one to be avoided, but not intelligent. Nepalis hold that it may be a race of uncivilized people, closer to apes than humans are, living in the wild as is their nature and probably best left undisturbed to find their own way.

Whatever the nature of the creature may be, there can be little doubt it exists. British expeditions in the area have encountered the creature, starting with Brian Hodgson in 1832. Up until that point, Westerners had dismissed the stories as native superstitions, but when Hodgson reported seeing a "tall, bipedal creature" covered in "long dark hair", which "fled the guides as if in fear", there were those who took him quite seriously indeed. Within the last year, two noteworthy encounters have proven beyond doubt the natives should have been taken seriously all along.

In the first, a team mapping the area and led by Major Trevor Parnwell of Her Majesty's 17th Foot spotted a dark-furred hominid easily the size of a troll. The Major, who had been carrying his rifle with a round chambered due to rumours of wolves in the area, fired, and the hominid fell with a terrible scream. Several more hominids charged up over the rise, and battle might have been joined, except the report of the Major's rifle set off a small avalanche. In the aftermath, none of the hominids could be found, nor could the British team including Major Parnwell, and the survivors made their way back to base camp to file their report.

In the second, a biological survey team had set up camp in the high forest, and staked out a goat as bait in a nearby meadow. They had then taken up station in the treeline with dry-plate cameras, in hopes of capturing images of the reputed wolves. To their surprise, a great furred hominid rose up from out of the tall grass, having crept up on the goat undetected, cut the rope, and ran off with the goat over its shoulder. The photographs did not show much in the way of detail, but confirmed the creature was definitely anthropomorphic, bipedal, and while nearly the size of a troll had no horns. The rope, when examined, showed indisputable evidence of having been cut with a sharp implement in a single sweep, so the yeti is either a tool user or has claws equal to a tyrannosaurus in size and a barber's razor in keen edge.

A bounty of £500 has been offered by the Royal Society for better photographic evidence, £600 for a dead specimen, and £800 for a live specimen. A French expedition, carrying the latest in moving picture technology, intends to leave for Nepal later this year.

DEX: 7	STR: 7	TOU: 7	PER: 4	WIL: 5	CHA: 5
Initiative: 7	Physical Defense: 10		Actions: 1		Mystic Defense: 6
Attack (7): 14	Social Defense: 7		Damage:		Physical Armor: 3
Club (3): 10	Mystic Armor: 2		Death: 43		Recovery Tests: 3
Unconsciousness: 36	Knockdown: 7		Wound Threshold: 11		
Movement: 8	Adventure Award: Initiate Tier				

Rules

Something akin to Neanderthals who have survived into the modern age, yeti are effectively a primitive tribe that has managed to avoid contact with the modern world. How much longer their seclusion can be maintained depends on the diligence of efforts of the outside world to find them, and given the intrusiveness of Europeans, that won't be long at all. Yeti are expert flint-knappers and makers of bone and stone tools. They recognize simple metal and modern implements, such as knives and shovels, and will use them if they can be acquired. They use fire to warm their caves and cook their food, and are adept at building smokeless fires and venting any incidental smoke into natural chimneys for diffusion and exit far from their location. Yeti are basket weavers, but have not yet developed pottery. Their language is simplistic, partly due to their not having evolved sufficiently for complex verbal communication. While shy, and generally pacifistic, they will fight to the death to defend their homes and their young.

Adventure Hook: Given the recent encounters, several expeditions have been planned to retrieve a yeti specimen. The Nepali government has flatly rejected most of the applications, as they will not allow the yeti to be hunted. It's sacred to some of the people in the area, and there are tribes that would open fire on anyone who attempted to kill a yeti and haul the body away for dissection. The party has been hired to find a middle of the road solution – definitive proof and scientific evidence of the yeti, without upsetting the locals or causing a diplomatic incident with the Kingdom of Nepal or the Qing Empire of China. Their benefactor would also appreciate if it was done without unduly disturbing the yeti themselves. If they're a previously uncontacted culture, their scientific value could be enormous as long as they remain uncontaminated.

Gruv Bestiary

Before we get to the latest round of biting, stinging, venomous, and otherwise pugnacious creatures, and the accompanying warnings and precautions, let us take a moment to consider the flora of the Grosvenor World. Previous missives have catalogued a fair number, mostly those that present some sort of hazard to life or limb, if for no other reason than those were the ones first brought to my attention by the military. In focusing on those, we have missed a number of plants with considerable utility for Earther settlers, and some that the average civilian may run afoul of in less adventurous settings, such as farming or prospecting for mineral resources. Discussing these specimens reveals deeper truths about the Grosvenor World itself, truths that have been speculated upon, and occasionally stated outright only to be met with derision from certain elements within the scientific community. Let us build a stronger case for this assertions, point by point, and let the overwhelming weight of the evidence carry the argument, as is proper in scientific debate.

Plants of the Grosvenor World

Assertions have been made in reports on the animals, dinosaurs and related saurians, and giant insectoids of the Gruv that apparently require further support. This section of my current report turns to the plant life of the Gruv for that support, considering evidence from another kingdom entirely for the sake of independence from previous data.

Blue Sedge

Plantae Angiospermae Poales Cyperaceae Carex coerulaes. That so many of the plants here resemble those of Earth strains credulity. This is an alien world. Where are the truly alien flora, plants we would have to create entirely new orders for? The fact that something so very like a sedge grass can be found here, close enough to classify it under the genus of Carex, and performing a function useful to Terrestrial colonists strains the imagination, and leads one's mind in decidedly unscientific directions. And yet here we are, with a broad leaf perennial grass, that grows in neat clumps, spreads slowly and not aggressively, and gathers the metals in the soil into its leaves in the process, with the copper combining with the plant's natural sulfur compounds to produce the characteristic blue coloration.

The soil of the Gruv is generally contaminated with heavy metals – copper, lead, nickel, and so on. I'm told there may be rarer elements as well, lanthanum and such. The Saurids have been using blue sedge for hundreds of years to decontaminate their farmland, making it safe for growing fodder, grain, and vegetables. Our own farmers have adopted this technique. A single crop of blue sedge is not enough for heavily contaminated land, but good enough for the areas where we have been settling, that have been chosen partly based on their contamination level. When the sedge is harvested, pulled up roots and all, a simple extraction such as that used with woad derives a powdery residue that can be sold on to a smelter for a few pence and the metals recovered from it. The herbaceous residue can then be composted or used directly as green manure. One doesn't even have to be worried about livestock grazing it and requiring chelation later on, as it's generally unpalatable to any but the most determined or clueless – so keep the garnickies out of the field.

Blue sedge seed prices out at 15/- a pound, with one pound seeding about an acre. Smart farmers let the plant go to seed before harvesting.

Iron Cactus

Plantae Angiospermae Caryophyliales Cactaceae Cactoideae Echinocactus ferramans On Earth, Pandanus candelabrum only grows in soil over kimberlite. The Boers and their British successors in South Africa have used it as a diamond locater. Copper may be found in Deseret and the far western Union by looking for the California poppy. The science of geobotany has arisen to study the interrelationship of soil, minerals, and plants, partly to look for further such resource identifiers. In the Gruv, deposits of iron have a highly obnoxious plant growing over them, because of course they do, this is the Gruv and the plants have attitudes that would never be tolerated back home.

E. ferramans, as its scientific and common name both might suggest, has a preference for soils with a high iron content that verges on exclusivity. While it will germinate in iron-poor soil, it will only mature when growing over deposits of magnetite or hematite. This would make E. ferramans an ideal indicator of where to mine for iron, except of course for its aggressiveness and persistence.

The common name derives not from the preferred growing conditions, but for the plant's uptake of free iron and its concentration in the cacti's thorns. This gives the spines a noteworthy

rusty colour and appearance. Contact with the spines should be avoided, as being pierced by one presents the same problems as stepping on a rusty nail – infection, difficulty in healing the wound, and the possibility of tetanus, better known as lockjaw. At present, no vaccine exists against tetanus, and treatment for active cases gives a poor prognosis, as there is no cure, with palliatives only giving the patient a slim chance of outlasting the disease.

One would think avoiding a cactus capable of causing lethal illness would be a simple matter, but of course it can't be. E. ferramans grows similarly to its relative, the exploder pod, in small, barrel-shaped extrusions above ground covered in spines, while the majority of the plant remains underground. Immature cacti as small as a golf ball have the potential of causing injury. The plant matures at nine inches in diameter, roughly the size of a football, by which time its spines have become viable seeds, and two inches long with roughened ends that aren't quite barbs. Being a perennial, it can regrow from any reasonably sized root fragment, if the soil conditions are amenable. This of course means the spoil heap must be regularly doused with kerosene and set ablaze. The tailings mound should likewise be inspected every few weeks, and any patch attempting to establish itself seen to, so the donkeys pulling the tailings carts don't take a spine above the hoof, or a labourer in the ankle.

At least they don't explode.

Newly Described Creatures of the Grosvenor World

With the flora attended to, let us move on to what I am sure most readers have skipped ahead to anyway, the fauna.

Phantom Lizard

Animalia Chordata Reptilia Squamata Lanthanotidae Lanthanotus evanescii

Like its Terrestrial cousin, L. evanescii differs from monitor lizards in having no tympanum or other externally visible auditory organ, although they can hear and are highly sensitive to ground vibration. Averaging ten inches in length for the males and twelve for the females, they have the cylindrical body, long neck, and short limbs of the monitor family. Most notably, though, these brightly coloured lizards have gained the power of illusion magic, allowing them to keep their colouration, used for mating, signalling, and so forth, and still avoid predators. Where the Terrestrial chameleon shifts its skin colouration to blend in with its environment, L. evanescii bends light around itself to present the appearance of something that is definitely neither a lizard nor edible, much like the physical illusions of Earth's Mages. The young hatch already able to make an illusion of a rock. As long as they hold still, predators that rely on sight, and not scent or body heat, will pass them by.

As they mature, phantom lizards learn to imitate other things, normally the most common lizard-sized objects in their environment. Many people have walked right past a phantom lizard and not known it, since it was pretending to be a clump of scrub grass at the time. This imitative ability has caused problems recently, and I'm sure the more clever among you are already nodding your heads and seeing where this is going. What are the most common objects for a lizard that has gotten into a military fortification? Imagine the consternation when a soldier wakes in the middle of the night, their sergeant shouting at them to ready their arms and get to their position, only to find three boots by their cot where there had been only two? And of course they grab the wrong one, only to have it wiggle out of their grasp and run off? Sergeants do not like confusion among their

troops. Officers do not appreciate the humour when it disrupts their drill schedule. The poor lizard doesn't appreciate having a soldier's foot land on it when it's trying to take a nap.

Dwarf and snark soldiers have been tasked with checking encampments for phantom lizards, but this can only be done in the wee hours of the morning and the first hour after sunset, when there's enough difference in the temperature of the area and the body temperature of the lizard for a casual glance to notice. A more intensive search can be done, but requires more time, and the sergeants have better uses for their troops than hunting for stray wildlife. Among the civilian population, some of the Boojum children have a thriving little business going, charging a penny to come in and check the house for lizards, and tuppence each for removing any they find. Of course, the more enterprising sorts find another house to let their fresh catch loose in, so they can charge another tuppence for the same lizard. Factories in the Gruv that do not run round the clock generally send an employee through the manufacturing floor with an air horn, the terrifically loud honk being sufficient to startle vermin (phantom lizards, rats, etc.) into revealing themselves. Those who live near factories can be guaranteed of being wakened at the start of the morning shift by the horn chasers.

DEX: 5 STR: 3 TOU: 4 PER: 4 WIL: 4 CHA: 4
Initiative: 6 Physical Defense: 7 Actions: 1 Mystic Defense: 6
Attack (4): 9 Social Defense: 6 Damage: Physical Armor: 2
Bite (4): 7 Mystic Armor: 2 Death: 18 Recovery Tests: 2
Unconsciousness: 14 Knockdown: 6 Wound Threshold: 6
Movement: 7 Adventure Award: Novice Tier
Powers: Camouflage (14); ClimbingS (5): 10; Illusion (Physical) (14): 18; SprintS (6)

Rules
The lizard's Illusion (Physical) Power works as the Base Spell of the same name.

Adventure Hook: After an incident in surgery, the chief of staff at the Grosvenor Memorial Military Hospital in the Portal District believes there may be a phantom lizard loose in the building. The nurses have also had some stories to tell, that are finally being taken seriously. Someone must find the lizard, or whatever is causing the disturbance, and deal with it. The less noise made, the better, as any official notice of the problem from outside the hospital would mean a terrific lot of paperwork, as well as a slowdown of Rabbit Hole traffic while the inspections for stray wildlife are tightened up.

Stinging Turtle

Animalia Chordata Dinosauria Thyreophoroidae Pseudocrocodylidae Ostivenarius armispina

While the stinging turtle does have considerable armour, it is most definitely not of the Testudines, as it has no proper shell nor the ability to retract its neck within. O. armispina has instead osseous scutes, and the distinctive pelvic girdle of the ankylosaurids and their relatives, putting it into the Thyreophoroidae. The problem there, of course, is that the thyreophoromorphs have up until now been exclusively herbivorous, and O. armispina is decidedly carnivorous. I propose a branch to the Crocodylidae, to accommodate a flesh-eating ornithiscian. Given the anatomic similarities to families scattered across the taxonomic tree, I expect the stinging turtle to be a subject of debate for years to come.

In the meantime, what we have is something like a crocodile, a comparison we will revisit several times, that breathes air but lives primarily in water. Bony plates form a protective ridge over its spine, and extend down in the fashion of roof shingles to the edge of the underbelly on the sides, the knee of each leg, and the tip of the elongated snout. Where an ankylosaurid would have a bony club at the end of its tail, O. armispina has a six-inch-long bony lance, with a channel running through its centre from a venom sac between the hips. This gives rise to its common name, as its hunting method consists of lying low in the water, keeping a lookout for prey with just its eyes and nostrils above the surface, then stinging its target with an upwards thrash of its tail. The neurotoxic venom paralyses anything the size of a deer or smaller within seconds, leaving an easy meal. While prey animals tend to be cautious around watering holes, spotting the head of the creature does not guarantee the position of the tail, as O. armispina has considerably more flexibility than the Terrestrial crocodile, and can curl about enough to put its tail pointing the same direction as its snout.

Facing one of these out of the water can be just as dangerous. While O. armispina measures only two to three feet in length, snout to tail-tip, a foot wide and equally high, about the size of a corgi, its bite exerts a terrific pressure, sufficient to break both radius and ulna in a human at one go. As well, it can whip its tail about much more quickly than might be expected, bringing that awful stinger to bear. Given the length of the duct from the venom sac to the base of the stinger, the creature always has enough venom for at least two strikes. Being stabbed with something akin to a poniard can be lethal on its own, if the strike is well placed.

And of course one never encounters such a creature in the singular, oh no, that would be far too kind of a Nature that in the Gruv has proven wickedly cruel. Stinging turtles cluster together in groups whose size is determined by the water and prey quantities. A small pond might have only two or three, while a lake could have dozens up and down its shores, rather like the crocodiles along the banks of the Nile. This creature is of course one of the reasons the military's order against casual bathing is strictly enforced in the Gruv. Just putting a foot into water incautiously could be enough to result in a fatality.

DEX: 5 STR: 6 TOU: 6 PER: 4 WIL: 4 CHA: 3
Initiative: 6 Physical Defense: 7 Actions: 2 Mystic Defense: 6
Attack (5): 10 Social Defense: 4 Damage: Physical Armor: 5
Bite (9): 15; Sting (6): 12 Mystic Armor: 1 Death: 36
Recovery Tests: 3 Unconsciousness: 30
Knockdown: 6 Wound Threshold: 10 Movement: 6/8*
Adventure Award: Novice Tier
Powers: Poison (Paralysis, 18); Surprise Attack (6)

Rules
Damage must be done with the stinger to invoke the creature's Poison.
* The second value is the creature's swimming Movement Rate.

Adventure Hook: An officer at Fort Wellington wants to borrow a trick from old-school siege warfare, and interfere with the water supply to Maksudum-matam. The party has been asked to retrieve a few stinging turtles, both male and female, to relocate upstream of the Samsut base, in the hopes they will follow the water down to the enemy fort. How the party captures the stinging

turtles and gets them past Samsut lines has been left up to them, but the officer will want some sort of proof that the job has been done.

Whiptooth

Animalia Chordata Dinosauria Saurischia Sauropoda Parvosauridae Viperasaurus veloxicans

Here, the beastie's name has been translated almost directly from the Saurid, and denotes the primary attribute and danger of the creature. In form a saurischian, V. veloxicans stands only two to three feet high at the shoulder, with a total length of ten to twelve feet snout to tail-tip, and an average weight of only three hundred pounds or so, making it the smallest and lightest sauropod yet discovered, living or in the fossil record. A browsing herbivore, V. veloxicans competes with other herbivores such as the gengit for leaves, berries, and similar foodstuffs in the woods along the southern base of the Gladstone Mountains and well into the western forests of the Grosvenor Peninsula. They travel in small herds, in a structure similar to Terrestrial deer, with a single buck, the largest of the herd, keeping a half dozen or so females and their young under his watch. Adolescent males are turned out of the herd, and band together in twos and threes for survival, parting company when the rut begins and they seek out older males to compete for the right to breed.

All of this sounds so terribly innocuous, doesn't it, but this is the Gruv, a land of deception and danger, where even the flowers may bite. (No, I have not forgiven the Grinning Monkey Orchid for existing.) V. veloxicans gains its common name from its defence mechanism. Where Terrestrial deer have antlers, and speed, and can either charge or flee, the whiptooth is, typically of the Gruv, pugnacious, and employs its fangs readily. Oh yes, we have here a venomous herbivore, one with large hardy molars for crushing whatever plant matter it finds appealing, but also a pair of three-inch fangs where a carnivore would have its eyeteeth. Like many snakes, the fangs fold out of the way up against the bony palate when not in use. Imagine strolling through the forest and finding a charming scene, a dozen tiny brontosaurii grazing contentedly in a glen, females the size of a small bear with their young more the size of a borzoi at their sides, making noises somewhere between a duck and a clarinet, and behind them all the buck, about a Welsh pony in volume, the bassoon in the orchestra. And then the buck winds you, and lets out a great tuba-like honk, and the herd suddenly backs up against him, and rears up on their hind legs, and hisses, a dozen boilers venting all at once and showing a dreadful lot of fangs at the end of highly mobile four foot long necks that can strike like a snake.

While V. veloxicans can and will bite from a stance on all fours, if it has the opportunity, it assumes a threat posture first. Reared up, with its tail out back for balance, the head is suddenly eye level with a troll. The beast hisses the way an American snake sounds its rattle, a warning that death is in the air. Fail to heed it, and that four foot long neck lashes out like an uncoiling mainspring, with uncanny accuracy striking for the one spot where bare skin might be found – just above a gorget, for instance, or the base of the throat, or the wrist of an arm extended to aim a pistol. Once bitten, the victim has scant seconds to receive aid, before the hemotoxic venom sends clots to the heart and lungs. Now imagine our scene above, and know that your platoon may not be able to fire enough shots in the first volley to stop them all, and your best option is to back slowly and carefully away, making no show of threat. If you are lucky, and intelligent enough to choose this option, you will retreat without engaging, and live to tell the tale.

Small wonder one of the Saurid tribes has adopted the whiptooth fang as their mark. Obtaining such fangs requires greater than average skill as a hunter.

Paula – perhaps you should re-edit this in the morning? The brandy is showing.
– Alfred

DEX: 6 STR: 7 TOU: 7 PER: 3 WIL: 5 CHA: 5
Initiative: 7 Physical Defense: 9 Actions: 1 Mystic Defense: 4
Attack (6): 12 Social Defense: 7 Damage: Physical Armor: 6
Trample (11): 18; Bite (9): 16 Mystic Armor: 3 Death: 43
Recovery Tests: 3 Unconsciousness: 36 Knockdown: 10
Wound Threshold: 11 Movement: 5
Adventure Award: Journeyman Tier (single), Warden Tier (herd)
Powers: Poison (15); Spot Armor FlawS (8): 11; Surprise StrikeS (8): 15

Rules

Whiptooth poison causes damage (see Poisons, 1879 Gamemaster's Guide, p.239), and lasts for 10 rounds minus the victim's Toughness Step, with a minimum of 1 round.

Adventure Hook: A herd of whiptooths has gotten into the paddock with the yearlings being raised for cavalry mounts. The horses and the whiptooths don't appear to consider each other dangerous, and are grazing more or less side by side. The whiptooths are not at all pleased to see the farmhands, who have arrived to take the yearlings back to the stables. Does anyone want to lend a hand separating out the two herds? Gunfire around the horses would of course be a terrifically bad idea, they're not trained for loud noises as of yet, and we don't want to rile up the venomous dinosaurs.

Samsut Constructs

This report not having a section labelled for abominable perversions of Nature, we will document what is known of the Samsut undead here. Numerous specimens have been obtained, some still with a bit of charge remaining in their battery. Without the Samsut control mechanisms, we are of course unable to test for function, but have been able to make considerable observations indicating a persistence of the last order that is revealing. Anatomic studies have revealed a few disturbing conclusions of their own. I really must extend every possible honour to those brave men and women who have captured the specimens we've had available, transporting them at considerable risk. There's still so much left to discover, and without the daring recoveries, often on the field of battle, which have been effected, we'd make no progress at all. I must also give credit to all members of the investigative team, and especially to our Engine and clockwork expert, Camilla Harcourt, who hasn't had anything hands-on to contribute, but provided insights into the logic of the unthinkable that gave us the beginnings of understanding; to our fossil expert, Henry Fairfield Osborn, who gave us such incredible detail from the bones, just recently a graduate student of the eminent Dr. Cope; to our lead Galvanic, Doña Ana-Caridade Rubalcaba, who brought us official support at a critical time and arcane support at another crucial juncture; and to Dr. Bernhard Grzimek, who saved us all with a jar of camphoric ointment, and did so much of the nastier bit in working out what we know of the zombies.

And with that, let us consider the necromancy the Samsut have wrought.
– Paula Nancy Millstone, Lady Jennings, CMG, FRS, Chief Biologist, Royal Society Grosvenor Expedition, 1880

Skeleton

Both the simpler and the more complex of the two types of undead we've observed, the skeleton is exactly that, a collection of bones once the internal supports of a person or animal, with two necromantic devices installed. The first is a small, armoured version of the magical battery that appears to power all of the Samsut devices. It's normally found attached to the underside of the sternum, putting it in a central location. Look for a vaguely silvery ovoid, a little closer to a Valentine's card heart than an egg in shape, about the size of one's fist. Turning one of these off is simple enough if one can get one's hand into the chest cavity without being beaten to death by the still-animated skeleton. When switched off, the battery releases from its attachment point, and the bones collapse into a pile, no longer supported. What exactly does support them remains a mystery – some form of invisible power the Galvanics are arguing about, whether it's magic or physics or something else. I think it's both really and neither can accept the other might be partly right. But I digress.

The second module is in the cranium, normally tucked up into the occiput, where the motor cortex would be if a brain still occupied the skull. This one is harder to reach, or to hit from close in or at a distance. The control module directs the skeleton, receiving its orders from the Samsut taskmaster by radio, or thought transference, or some other method we haven't thought of as yet. Destroying the control module while the skeleton is under Samsut control seems to induce some kind of feedback in the controller, which has made it difficult to obtain intact specimens, as the soldiers, and especially the Maxim gunners, have been aiming for the upper part of the skull. The module, not the same one used in zombies, apparently stores the instruction given to the skeletons. It appears that only one instruction, albeit possibly one with a conditional or two, can be given to skeletons, based on field observation and very limited captive specimen experimentation.

Exactly how the skeleton is held together, and how it follows orders and carries out motions with no nervous system present, we've yet to determine. The sheer implausibility of the thing has left some of the team feeling a bit addled. We're trying to convince Dr.s Caton and Jackson to come to the Gruv as their recent work in neuroanatomy, along with that of Dr. Wernicke of Prussia, could be invaluable here. Until we have experts of their calibre on site, however, we shall have to muddle through as best we are able. We've established that switching the battery back on will reconstitute the skeleton, but either puts its previous orders in abeyance, or discards them, or the control module goes into some kind of diagnostic mode and is awaiting input from a human operator. Everyone on the team has their pet hypothesis, and none of us can think of a way to test them and find out which one is right, and it's driving us silly. As long as all the bones are piled up within about a foot or so radius from the controller and battery, when switched on, the skeleton reassembles itself, and rises up into a waiting posture with a blinking yellow light on the battery. We haven't been able to get any further. We do know if you take a non-structurally critical bone out of the pile, the skeleton rises up as normal, but the light stops blinking and goes a sort of pale rose-pink. If a major structural bone, like a femur, has been left out, the bones get sorted into a tidy pile, but not assembled, and the yellow light turns blue. We cannot substitute a bone from another skeleton, although logically there must be a way to get a skeleton to accept a replacement bone. We have yet to find a way to safely recharge the batteries, and do not know how to trade out a dead battery for

a live one, as we do not understand how the battery links to the control module. Miss Harcourt is recovering nicely from the burns she suffered attempting to disassemble a live battery, and her steps have been recorded for the next person to make the attempt, should we find a volunteer.

DEX: 4 STR: 5 TOU: 6 PER: 4 WIL: 5 CHA: 3
Initiative: 5 Physical Defense: 6 Actions: 1 Mystic Defense: 5
Attack (4): 8 Social Defense: NA Damage: Physical Armor: 3
By Weapon: 5+ Mystic Armor: 3 Death: 36 Recovery Tests: 3
Unconsciousness: NA Knockdown: 10 Wound Threshold: 10 Movement: 8
Adventure Award: Novice Tier
Powers: None Loot: If Any

Rules
Skeletons are immune to Social Skills.

Zombie

Somehow, this South American word found its way into the vernacular, and seems to have been, like a harnessed pair at the bottom of a hill, just waiting in a convenient location to be of use. Multiple dissections have proven beyond all possible doubt that these are in fact the bodies of the dead, being reanimated by Samsut weird science devices in a horrid technological version of necromancy. As such, they are vulnerable to all of the processes of decomposition, and move through their stages in the course of being used for shock troops, agricultural slaves, and whatever else a culture that can abide the constant presence of the dead might contrive. Eventually, the remains are boiled to remove the last shreds of mortality, and the bones are sent off to be skeletons. (All but two of the skeletons we have received have shown signs of being boiled, with the two outliers showing the marks of beetle mandibles under the microscope.) One must wonder how the Samsut feel, seeing the remains of their dearly departed being sent off to march against their people's foe, used as front-line troops because they cannot feel the shot tearing through them. But again I digress. This manuscript shall need considerable review before submitting.

> *Oops. It appears Lt. Faversham has been sending in the papers he thinks are ready, without checking, again.*
> *– Jeremiah Carbottle, Secy., FRS*

Most encounters between Earthers and Samsut undead have been on the battlefield, with the zombies arriving in the second wave, after the skeletons. The stinkers charge in with more organization, hacking away at our forces with well-aimed swords and pole-arms, and occasionally lining up and firing rifles as they advance to bayonet range. Again, field observation has determined that a nearby controller or taskmaster is required for this sort of operation, as a feedback cycle between the zombies and their master determines their actions. Miss Harcourt has theorised that this feedback cycle could be exploited, and has suggested doing one's fiercest damage to the uninjured parts of the zombie in the hope that some lingering trace of sensorium might transmit the pain to the controller. Logically, they would have to have the ability to feel pain from pre-existing injuries shut off, as otherwise the controller would be continuously overwhelmed by the zombie's death wound. Our military has found that dead bodies absolutely cannot be left behind in a retreat,

as the Samsut will have them fitted with the necessary modules and back in line on their side in jig time. Interestingly, turned Earther troops are the only source of Boojum zombies we have thus far seen. Reports have come in also of Boojum bodies being left on the field by the Samsut undead controllers, although any human bodies were of course taken for resupply. This couples with stories of a lack of Boojums among the living Samsut forces, to raise a question another committee should address: where are the Samsut Boojums?

To return to the matter at hand, distant observations, such as those at Maksuddum-mattam, confirm zombies are used in labour much like our ancestors used living human beings, for all the drudgery of farming and maintaining a settlement. Again, a controller is required, and there seems to be a limit to range of the controller's devices, although a team of zombies can be set to a number of different tasks working toward a common end. For example, one controller may handle zombies cutting grain, binding it into sheaves, carrying the sheaves to a cart, and piling it on the wagon, all at once.

In the absence of a controller, zombies appear to forget their previous orders, and revert to an idle wandering, a sort of random perambulation much like a leaf caught in an errant breeze, or a sort of trembling convulsion, centred around the oldest injury. This latter behaviour has left us wondering if zombies have enough memory and presence of mind to recall how they died, and may in that case be continuously suffering their death throes. A truly horrid thought, and one that if true would justify our war against the Samsut in all its ends. All the while, the zombie itself stinks to Perdition, drops little bits of itself as it rots, and violates the moral and ethical codes of multiple religions and nations. As with the skeleton, two modules are involved in making one of these corpses walk instead of staying decently in the ground, one located in the chest cavity, generally found just below the top of the sternum, and the other in the cranium, generally in the back, inserted through a slit made at the base of the skull. This again puts the controlling module in the vicinity of the motor cortex, albeit possibly with some remnants of nerves that have not yet decayed to sludge that the device might connect with. We've established that the zombie controller module is larger and a bit more complex than the skeleton one, although not by much. The difference appears to be that the skeleton module generates the field holding the beastly thing together, while the zombie module deals with a good bit more information and more complex instructions.

I realize this information is anxiously sought by the Society, and seriously needed by our Army in the interest of securing victory. I speak for all of us here, though, when I say we would rather this cup had not passed to us. For myself, I have gone from cataloguing wildflowers along the edge of the marsh, to tangling with a creeper intent on having me for a snack, to most recently knocking in the back of the skull of an animated skeleton as it menaced Mr. Osborn so that Doña Rubalcaba could reach in and switch the bloody thing off. I find my behaviour becoming less and less ladylike, and sorely miss long dresses, quiet strolls by the primrose hedge, and days when I did not know how to swing a spanner as an improvised weapon. All in all, despite the sheaves of photographs and reams of notes and reports which have gone over to the Flagship and onward to Earth, I feel that we have, in the best of scientific tradition and much to the frustration of those depending upon our results, raised more questions than we have answered.

Zombie

DEX: 5 STR: 6 TOU: 7 PER: 5 WIL: 6 CHA: 4
Initiative: 5 Physical Defense: 9 Actions: 1 Mystic Defense: 9
Attack (5): #Social Defense: 8 Damage: Physical Armor: 0
Claws (4): 10 Mystic Armor: 3 Death: 52 Recovery Tests: 2
Unconsciousness: NA Knockdown: 10 Wound Threshold: 10 Movement: 6
Adventure Award: Novice Tier Powers: Immune to Social Attacks

Rules

Zombies use tools and weapons with a Skill Rank equal to what they had in life, or their controller's Abd-Salamtu Controller Skill Rank, whichever is higher. A Called Shot to the battery or control module that scores more than one success damages the device badly enough to shut it down. Note that making a Called Shot requires a clear line of sight to the target for ranged fire. Swinging a melee weapon at the back of a zombie's head in hopes of hitting the control module requires a Called Shot to the back of the head with an extra success to hit the precise right spot.

1879 GAMEMASTER'S GUIDE

Timeline

Curious, in time, I stand, noting the efforts of heroes;
Is the deferment long? bitter the slander, poverty, death?
Lies the seed unreck'd for centuries in the ground? Lo! to God's due occasion,
Uprising in the night, it sprouts, blooms,
And fills the earth with use and beauty.
– Passage to India, Walt Whitman

Time Line

This chapter lays out pivotal events within the game world which create the present reality of 1879. Some of these events happened in our own history. Others are specific to the game world. The intermingling of the two generates a plausible alternate history, serving as a steady foundation beneath the more fantastic elements. How the Gamemaster uses this time line is left up to the individual. Events may inspire adventures, dealing with secrets or unfinished business from the past. They may be tossed off in light conversation as an explanation of what's currently happening. Readers are encouraged to research events that catch their interest. There's as much to be learned from finding out an event is fictional as there is to learning of one that actually happened.

Year	Event
539 BCE	Fall of Babylon. The Babylonians pass through the portal into what will later be known as the Grosvenor World. Over the next three hundred years, Hittites and Akkadians follow, before the portal closes.
1729	China makes opium illegal as a recreational substance.
1741	Sultan Mahmud I of the Ottoman Empire makes the hajj, at the demand of his viziers, becoming the first Ottoman Sultan and Caliph to do so. Mahmud I does little else of note during his reign, serving more as a figurehead than a ruler.
1758	Sultan Mustafa III makes the hajj. On his return, Hajji Mustafa III is able to win the imams to his side, and implements a series of reforms in the military. His program of modernization in the military and the civil service barely scratches the surface of what is actually needed, but it gets the Ottoman Empire going in the right direction.
1763	Frederick II of Prussia makes the Volksschule educational system compulsory, laying the foundation for later Socialist reform.
1775	Sultan Abdulhamid I makes the hajj. He continues the reforms that keep the Ottoman Empire staggering along, the Sick Man of Europe refusing to lie down and die. The Janissary corps and navy are renovated. The Imperial Naval Engineering School is founded. The Empire continues to crumble at the edges.
1790	Sultan Selim III makes the hajj, a year after his accession as has become tradition by this time.
1796	Edward Jenner introduces the use of cowpox as a vaccine against smallpox.
1801	Richard Trevithick's "Puffing Devil", a steam powered carriage, takes six passengers from Camborne Hill to the nearby village of Beacon.

Year	Event
1801	Ottoman forces stand off the Wahhabi forces of ibn Saud at Karbala, although with considerable losses.
1802	The first carbon arc light is demonstrated.
1802	Richard Trevithick designs the first workable steam locomotive.
1802	Ottoman troops hold against the Saudi Wahhabis under Abdul Aziz ibn Mohammed ibn Saud at Najaf, relief forces arriving just in time to prevent the fall of the city.
1803	An attack by Saudi Wahhabi forces on Mecca is repelled by Ottoman forces. The various Shi'a peoples align with the Sunni Ottoman Empire against a common enemy and the Wahhabis are pushed back to Diriyah. Religious war between Sunni and Shi'a forces on one side and Wahhabi forces on the other rages in the Middle East for the next two decades. The Sunni and Shi'a forces occasionally conflict with each other, making it sometimes a three-sided war. None can produce a significant victory. Mecca and Medina remain in Ottoman hands.
1804	Richard Trevithick's steam locomotive makes the first steam-powered railway journey along the tramway of the Penydarren Ironworks in Merthyr Tydfil, Wales.
1805	The Promethean match is invented. The end of a stick is coated with a mixture of potassium chlorate and sugar and allowed to harden. To light it, the match head is dipped in sulfuric acid, then held well away for a moment while it fizzes and then bursts into flame.
1807	The Janissaries, their power base threatened by continuing reforms, overthrow Sultan Selim III and put Mustafa IV on the throne.

Year	Event
1807	Whitney's mechanical short-staple cotton gin is in widespread usage. Paradoxically, and sadly, this leads to an increase in the demand for slaves in the American South.
1808	Sultan Mustafa IV is overthrown before he can make the hajj, breaking the tradition. Mahmud II takes the throne as Sultan and Caliph.
1809	Sultan Mahmud II makes the hajj, restoring the tradition, and requires his heir to make the hajj before being invested, starting a new tradition lasting for generations.
1812	Ottoman forces stand off the Nejdi rebels at Medina. No Shi'a forces join the fight this time, the breach between Sunni and Shi'a having reasserted itself.
1812	John Bellingham assassinates Spencer Percival, British PM, the first up-close assassination done with a firearm. Bellingham is hanged seven days later amid fears of revolution.
1813	Father Jose Maria Morelos convenes a Congress which produces a declaration of independence for Mexihco.
1813	The Nejdi rebels attack Mecca. Predominantly Egyptian forces of the Ottomans hold them off, and the rebellion is broken.
1815	George Stephenson designs a safety lamp for miners. Humphry Davy designs a similar lamp, and accuses Stephenson of stealing his design. The controversy lasts for 18 years.
1815	Father Morelos is captured by the Spaniards and executed.
1819 (16 Aug)	Henry Hunt speaks at a rally in Manchester. The constables ride in swinging sabers and cause a panic. A third of the casualties are women, far more of a percentage than the crowd composition.

Year	Event
1820	General Agustin de Iturbide is ordered to lead his troops against those of Vicente Guerrero. Instead, Iturbide joins forces with Guerrero.
1820	Hans Christian Ørsted discovers electromagnetism.
1821	Faced with the united front of Guerrero and Iturbide, the Spanish crown signs both the Treaty of Cordoba and the Declaration of Independence of the Mexican Empire.
1821	The Stockton and Darlington Railway is commissioned by Parliament. George Stephenson surveys the line. He sets up a firm, Robert Stephenson and Company, to manufacture the locomotives, under strict secrecy and tight control of the patents. The rails are wrought iron, supplied by Bedlington Ironworks, breaking a verbal agreement between George and William Losh of Walker Ironworks for cast-iron rails. Distrust of George Stephenson begins to spread.
1821	Michael Faraday builds the first electromagnetic motor. He fails to credit the significant work of two other scientists in his paper and his work isn't developed for a while.
1823	The Ecole de Médicine de Pondichéry opens, and accepts women as well as men for degrees in Medicine.
1823	Iturbide is dethroned, and a republican constitution creates the United Mexihcan States.
1823	The Office of Scientific Advancement commissions Charles Babbage to build the Difference Engine.
1824	Stamford Raffles takes Singapore in the name of Britain.
1825	The Decembrist coup in Russia fails, awakening the paranoia of the tsar.
1825	Michael Faraday isolates and produces benzene, which at the time he calls bicarburet of hydrogen and then later benzin.

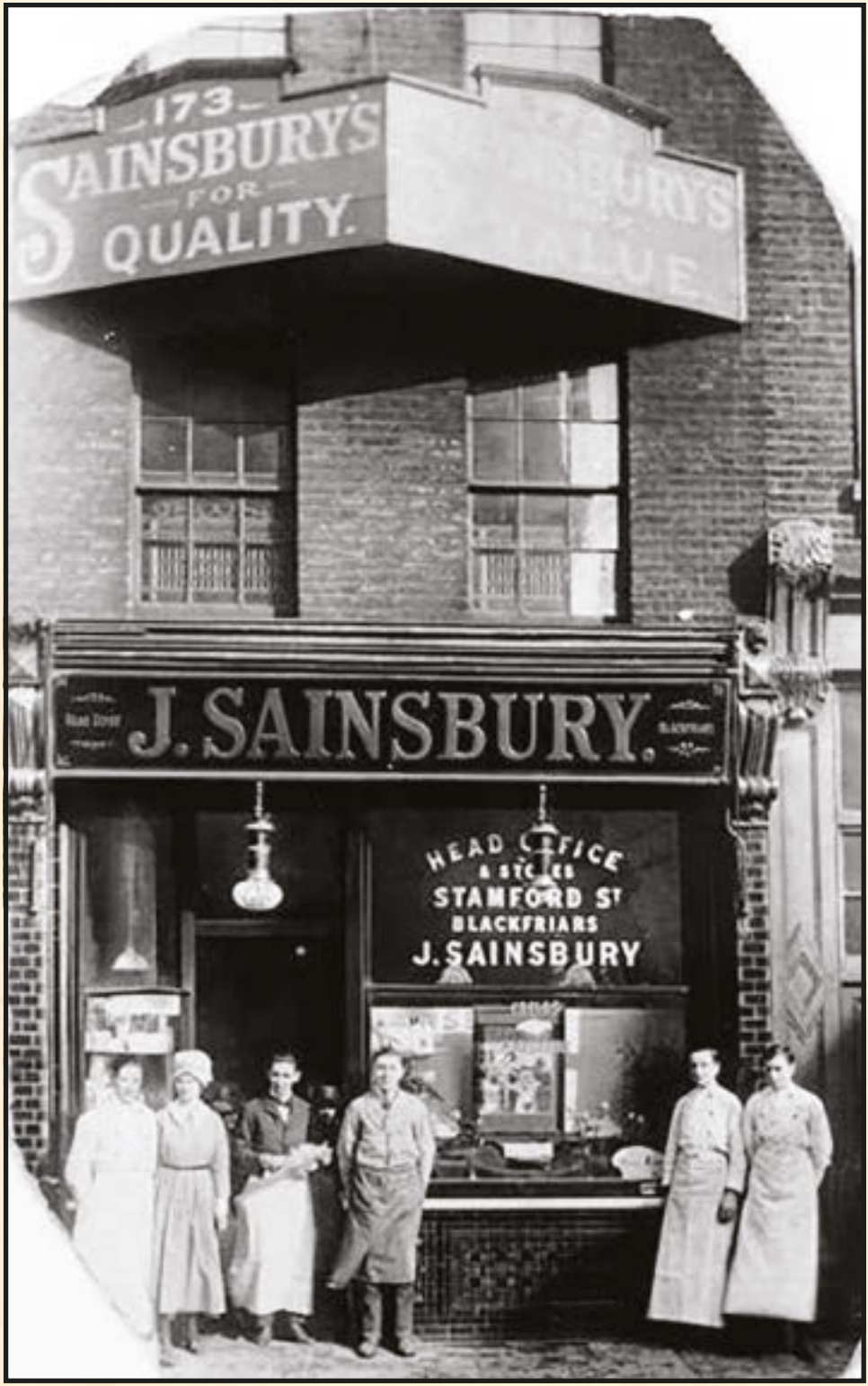
Year	Event
1826	John Walker, a chemist from Stockton-on-Tees, invents the friction match. They don't work very well.
1826	Sultan Mahmud II abolishes the Janissary corps.
1829	The Peele Act creates the Metropolitan London Police.
1829	Sir Isaac Holden improves the friction match. Samuel Jones, a chemist in London, patents the idea and starts selling lucifer matches.
1829	Robert Stephenson, after a three year absence from England and rumoured to be estranged from his father, designs and oversees the building of the Rocket, the first multi-tubular locomotive. The Rocket is the only locomotive entered in the Rainhill Trials successfully completing the tests.
1830	Charles Sauria of France invents the white phosphorus match, which has to be kept in an airtight box. Phossy jaw becomes an industrial disease.
1830	Isambard Kingdom Brunel is elected to the Royal Society.
1830	Robert Stephenson designs the Planet, which moves the cylinders inside the wheels. Robert and his father George have a very public falling out over the design, made worse when Planet proves to be substantially more efficient and does not break its crank axles like George predicted. Robert moves to the United States to supervise the Camen and Amboy Railway.
1831	Work begins on Brunel's Clifton Bridge, but is suspended after the Queen Square riots. The investors abandon the project.
1831	Michael Faraday discovers electromagnetic induction.
1831	Sultan Mahmud II conquers the Iraqi Mamluks.
1831	Michael Faraday discovers EM induction. He puts together the idea of lines of flux.

Year	Event
1831	Frederick William, "Fritz", born to William and Augusta.
1832	The phenakistoscope is invented.
1832	Joseph Henry detects magnetic induction at a range of two hundred feet. He produces high frequency AC oscillations and demonstrates that capacitor discharge can be oscillatory. Lord Kelvin later proves this mathematically in a paper on Transient Electric Currents in 1853.
1833	Joseph Clement halts operations and puts his workmen on notice after Babbage orders him to move his workshop to a spot near Babbage's home, but refuses to compensate Clement for the expenses of the relocation. The Office of Scientific Advancement steps in and assumes control over the Engine project, citing national and pecuniary interests. The workshop is relocated to the Woolwich Dockyard.
1833	A House of Commons committee finds that Stephenson had equal claim to having invented the safety lamp. Davy goes to his grave believing Stephenson had stolen his idea. The Stephenson lamp is used exclusively in the North East of England, whereas the Davy lamp is used everywhere else. The experience gives Stephenson a lifelong distrust of London-based theoretical scientific experts, Parliament, and the south of England, whose elitism against the north is a large part of the problem.

Year	Event
1833	Isambard Brunel is appointed chief engineer of the newly commissioned Great Western Railway. He implements the broad gauge, partially because it adds to passenger comfort, partially for stability at higher speeds, but predominantly because Stephenson holds a patent on the so-called standard gauge and will not release or license it. Britain's railroads are a hodge-podge of Stephenson's standard gauge, narrow or Welsh gauge, and broad gauge, with some one-off railways here and there that don't connect to anything else.
1833	Robert Stephenson turns down an offer to move back to London as chief engineer for the London and Birmingham Railway. The post goes instead to James Watt, Jr., son of the famed inventor, who brings the project in massively over budget, and retires back to Warwickshire.
1833	The East India Company loses its government-backed monopoly. Competition begins to drive prices down and the Company grows desperate.
1835	Thomas Guppy and Isambard Brunel form the Great Western Steamship Company.
1836	The first domestic British telegraph line goes into service.
1837	King William IV dies on June 20, leaving no legitimate offspring. His 18-year-old niece Victoria (granddaughter of George III) becomes queen of the United Kingdom of Great Britain and Ireland. The news goes out over telegraph, the first major world event to be so announced.
1837	Babbage publishes the Ninth Bridgewater Treatise, in which he argues for the existence of God and the nature of God as a machine designer. Babbage subsequently leaves the Engine project and sets about work on a new design, the Analytical Engine.

Year	Event
1837	Charles Wheatstone and William Fothergill Cooke patent an electrical telegraph.
1838	The Office of Scientific Advancement completes the Differential Engine, installs it at the government offices building at Great George Street in Whitehall, and begins work on the Version 2 Engine, known as the Babbage-Clement Engine, a smaller, lighter, more efficient model requiring only one-third as many parts.
1838	Brunel's ship the *Great Western* sails from Bristol to New York, not the first steam crossing but the first successful one, as the *Sirius* crew has to burn one of their masts for fuel, while the *Great Western* arrives with a third of its coal bunkers still full. The *Great Western* also makes the crossing three days faster than the *Sirius*.
1838	Sheridan Le Fanu publishes his first ghost story.
1838	Robert Stephenson and his wife relocate to Tuscany, at the request of the Leopolda Railway. He spends the next several years overseeing construction of the Faentina line through the Muraglione Pass, alternating with time spent in France consulting with Paulin Talbot on the Chemins de fer du Gard running from Beavoir to Ales, and in Spain advising on the construction of the rail from the Bay of Biscay to Madrid.
1838 (Dec)	Construction begins on the Box Tunnel.
1839	British government begins to provide money for elementary schools

Year	Event
1839	The new commissioner for trade in Canton, Lin Zexu, demands laws prohibiting opium be enforced, and that British merchants surrender their stocks. The Superintendent of Trade, Charles Elliot, besieged in the factories along with everyone else and facing a dwindling supply of food, makes a deal with the merchants to pay for their opium with Crown funds, which of course isn't going to happen, as opium is illegal in England. Over a thousand tons of opium are given to Lin Zexu, who has it all dumped into the ocean.
1839	Sultan Mahmud II begins the Tanzimat reforms. He dies before the first efforts take effect.
1840	Queen Victoria marries her cousin Prince Albert of Saxe-Coburg-Gotha.
1840	Penny post (fast, inexpensive mail service) is established by the British Royal Post Office. Letters cost 1d per half ounce regardless of destination, and postage is paid by the sender. In London, hourly deliveries soon become standard, allowing invitations to be sent at breakfast, replies received at lunch, and guests greeted at dinner.
1849	The Vaccination Act not only provides for the immunization of infants against preventable disease, but acknowledges the government has a responsibility for maintaining the health of its citizens.
1840	Sheridan Le Fanu becomes owner of the *Dublin Evening Mail* and *The Warder*, two Irish newspapers.
1840	A contingent of the British Navy and the British Indian Army (at the time the private troops of the East India Company) arrive in China, and begin the First Opium War.
1840	Sultan Abdulmecid I continues the Tanzimat reforms of his father.
1840	Victoria Adelaide Maria Louisa, Princess Royal, 1st child of Victoria and Albert, is born.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SAINSBURY'S
FOR
QUALITY.
J. SAINSBURY.
HEAD OFFICE
STAMFORD ST
BLACKFRIARS
J. SAINSBURY

Year	Event
1841	The National Census is tabulated by the George Street Engine. The Babbage-Clement Engine is completed. Sales are brisk, and the V1 Engine falls by the wayside.
1841	Albert Edward, Prince of Wales, 2nd child of Victoria and Albert, is born. Nicknamed Bertie, he is designated as heir to the throne.
1841 (April)	The Box Tunnel is completed, at the cost of 100 worker fatalities over the course of the project. The tunnel, at 1.83 miles in length and a 1 in 100 gradient, is the largest and steepest railway tunnel up to this point.
1842	Routine passenger rail service opens between Manchester and London.
1842	The London police establish a detective department.
1842	The Chinese surrender to the British. The Treaty of Nanking requires the Chinese to pay for the seized opium, opens five ports to British trade, and hands over Hong Kong to Britain as a Crown colony.
1843	The Autotill, based on the Babbage-Clement Engine, is introduced. In a famous demonstration, the Autotill is shown to be faster and more accurate than a Chinese accountant with an abacus.
1843	A Swedish firm brings out their own version of the Babbage-Clement Engine. The design lacks several key features, and requires constant adjustment to keep its calculations accurate.

Year	Event
1843	The Countess of Lovelace, Ada Byron, daughter of the infamous poet, translates a paper by Luigi Menabrea, an Italian mathematician and correspondent of Babbage, from French to English. In her extensive annotations, fully three times the volume of the original paper, she lays out the fundamental principles for using the Analytical Engine to solve high order mathematical problems, including a complete algorithm for mechanically deriving the Bernoulli numbers. People begin calling the Engine programmers "Lovelaces".
1843	Brunel's ship *Great Britain* is launched, the first iron hulled propeller driven ship to cross the Atlantic.
1843	Alice Maud Mary, 3rd child of Victoria and Albert, is born.
1843	After several years of increasing acrimony, Charles Wheatstone and William Cooke dissolve their partnership. Their patents are divided between them by the judicial committee of the Privy Council, in an arrangement that satisfies neither man.
1844	The desktop 20-key calculator is introduced, based on the Difference Engine.
1844	The Factory Act limits the working day in Great Britain to 12 hours for people under 18.
1844	Alfred, Duke of Edinburgh, 4th child of Victoria and Albert, is born.
1844	Sheridan Le Fanu marries Susanna Bennett, with Isaac Butt as a witness.

Year	Event
1844	Babbage delivers the completed plans for the Analytical Engine to Lord Cheltenham. He had, however, deliberately inserted a few small errors into the plans that would have to be corrected before the Analytical Engine would function. Joseph Clement dies before completing his review of the plans. His former journeyman, Joseph Whitworth, is named the new chief engineer at Woolwich. Babbage reveals to Lord Cheltenham the plans he had delivered were flawed, and that he has sold the correct plans, along with all of his notes on Engine design and Lady Lovelace's work on Engine programming, to a pair of enterprising young men from Scotland. Three days later, before the government can act, Babbage has an altercation with an organ-grinder in the street outside of his office and drops dead of apoplexy.
1844	International Calculating Engines, Ltd., (ICE) begins operations, run by John Griffon Montague Johnstone, newly elevated to Baron Johnstone, and his cousin, John Conway Levine Johnstone, the recently-created Earl of Annandale and Hartfell. The Office of Scientific Advancement sells the Woolwich facility to ICE. Joseph Whitworth joins ICE as one of their lead engineers. The first Byrons appear.
1844	The Enon Chapel scandal breaks, with a dustman stating he had removed sixty loads of "waste". The chapel had opened a burial vault in 1823, measuring 59 feet by 29 feet. Somewhere around 12,000 bodies were interred, the last in 1839. The Sunday School was infested with carrion flies. The chapel is closed down by the parish.
1845	The Irish potato famine peaks, as the potato blight spreads across Europe. Starvation and emigration cause the population of Ireland to drop from 8.2 million in 1841 to 6.5 million in 1851.

Year	Event
1845	The first commercial Analytical Engines appear on the market.
1845	Ernest accedes to the throne of Coburg. Prince Albert is designated as his heir, bypassing Bertie, who is already committed to the throne of England.
1845	The first medical report of phosphorus necrosis is published in Vienna.
1846	Robert Stephenson returns to England to work on the Suez canal plans.
1846	Michael Faraday and Charles Lyell produce a report on the colliery explosion at Haswell County Durham. Coal dust is cited as a major contributor to the explosion. The risk is ignored by the industry.
1846	Helena (Lenchen), 5th child of Victoria and Albert, is born.
1846	The Disease Prevention Act authorises sanitary improvements by the General Board of Health.
1846	The Corn Laws are repealed. Grain prices tumble under the influx of cheap foreign imports. The famine is alleviated, as there is now bread the poor can afford, but farms fail economically due to collapsing prices. The rural poor begin to migrate to the cities in search of work.
1846	William Cooke founds the Electro-Telegraph Company. The startup costs, which include £120,000 to Wheatstone for the use of his patents, remain a stone around the company's neck, and it founders six years later.
1847	Robert Stephenson is elected conservative MP from Whitby, an office he holds until his death in 1859. He spends much of his time in government opposing change in pretty much any form.

Year	Event
1847	The Dee Bridge collapses, killing five people and seriously injuring nine others. Robert Stephenson, the designer, is accused of negligence. The inquest finds the design to be basically flawed. Stephenson never gains another design contract.
1847	The Baths and Washhouses Act allow parishes to set aside funds for bathhouses, some of which provide free laundry facilities for the poor during epidemics.
1848	Cholera, recurring in epidemic waves throughout England's cities, reveals a need for increased public health measures.
1848	George Stephenson dies. His son Robert offers to license the rail patents he has inherited, but by this time multiple standards have been developed, and distrust of the Stephenson family is too highly ingrained in Britain's iron and steel industry.
1848	Louise Caroline Alberta, 6th child of Victoria and Albert, is born.
1848	The British royal family leases Balmoral.
1848	The Metropolitan Commission of Sewers Act creates responsibility for sanitation, drainage, and water supplies.
1848 (April)	The Chartist Convention holds a mass meeting on Kensington Common. Somewhere around 150,000 people show up in support of a petition for political reform later submitted with over a million signatures.
1849	Carbon arc lights with magnetic generators become the standard for lighthouses in Britain, operated by Differential Engines. Lighthouse keepers become largely a thing of the past, as the lighthouses are automated, sending out pre-written messages by telegraph when problems occur. Some lighthouses, in remote areas where telegraph wires cannot be placed or maintained, retain their keepers.

Year	Event
1849	Charles Mansfield begins industrial level production of benzene as a coal tar derivative.
1849	Dr. John Snow publishes *On the Mode of Communication of Cholera*.
1849	The Industrial Boiler Safety Act is passed, requiring boilers to be pressure tested to a decent safety margin, safety valves to be installed, and pressure gauges to be calibrated and connected before boilers were allowed into operation. Prior to then, boiler explosions were commonplace. Even after, and up to the 1880s, boilers still explode if they aren't regularly inspected for corrosion, or if one of the hand-peened rivets gives out, or if the iron plating isn't to spec. A steel boiler with welded seams and machine-peened rivets is required for proper safety, and even there, a weld can fail.
1849	A Royal Commission condemns the use of untrussed cast iron in railway bridges in general, after the collapses of the bridges at Dee, Wooton, Bull, Staplehurst, Inverythan, and Norwood Junction.
1849	Jules Verne meets Alexandre Dumas, and the two men collaborate on a play script, launching Verne's writing career.
1850 (13 July)	An article ostensibly by Mrs. Amelia Mouser (actually the playwright Douglas Jerrold) appears in Punch, referring to a "palace of very crystal" to be located at the forthcoming Great Exhibition. The nickname "Crystal Palace" is picked up by the press and enters the vernacular even though the building has not yet been approved for construction.
1850	Arthur, Duke of Connaught, 7th child of Victoria and Albert, is born. Arthur is christened with his namesake, Wellington, as godfather.

Year	Event
1850	The Metropolitan Interments Act grants the Board of Health power to close full churchyards, open new cemeteries, and purchase private cemeteries for public use.
1850	Robert Louis Stevenson is born.
1851	The Crystal Palace Exhibition, organized by Henry Cole and Prince Albert and others, opens. Carbon-arc searchlights, with hand-cranked magnetic generators directly attached, are demonstrated.
1851	New funding is found for the Clifton Bridge by Parliament, under suggestion from Prince Albert.
1851	The British lose a war against the Basotho.
1851	Interchangeable parts are introduced in rifles. Standardization improves military efficiency, especially in logistics.
1851	Prince William of Prussia and Princess Augusta arrive in England, bringing Fritz and Louise, their children. Vicky makes a considerable impression, although only 10 to Fritz's 20. She already speaks fluent German, as opposed to Fritz's poor English, having been raised in a bilingual home.
1852	Britain formally recognizes the Transvaal Republic.
1852	Elisha Otis invents the safety elevator.
1852	While repelling an invasion of Swaziland by the Zulus, the British capture King Mpande's second son, Mbuyazi. British diplomats convince Mbuyazi that an alliance with the British would be good for the Zulu Kingdom.
1852	Richard Garrett and Sons implement an assembly line at the Long Shop in Leiston, Suffolk. They produce steam tractors for agricultural use.
1852	The British again lose to the Basotho.
1852	Brunel designs the *Great Eastern*, originally called the *Leviathan*.

Year	Event
1852	The British royal family buys Balmoral outright for £31.5k. The residence is torn down and replaced with a far larger one of Albert's design.
1852	The Crystal Palace is removed to Sydenham.
1853	A near-rebellion by the Sepoys of India is headed off by the manufacture of a "Calcutta Special" cartridge, guaranteed by both an imam and a Hindu priest to be greased with ghee instead of lard or tallow.
1853	The Swedish V3 Engine is introduced, but achieves little commercial success.
1853	Leopold George Duncan Albert, Duke of Albany, 8th child of Victoria and Albert, is born. Queen Victoria uses chloroform at the birth, thus ensuring its place as an anaesthetic. Dr. John Snow is her anaesthetist.
1853	The Fish House at the London Zoo, the first public aquarium, opens, built along the lines of a green-house.
1854	The rebuilt and expanded Crystal Palace, on Penge Common next to Sydenham Hill, opens as a permanent exhibition hall.
1854	Elisha Otis demonstrates the safety elevator dramatically at New York's Crystal Palace, with the cable being severed with an axe.
1854	Oscar Wilde is born
1854	The Crimean War begins. The Earl of Cardigan leads a charge of a light brigade at Balaclava, to disastrous results.
1854	London's Paddington Station, designed by Brunel, opens.
1854	During the Broad Street cholera epidemic, Dr. John Snow and Rev. Henry Whitehead identify the source as the Broad Street public water pump. The science of epidemiology is founded. The miasma theory is considered discredited, but remains in circulation for many years.

Year	Event
1854	The Clifton Bridge is completed. Brunel makes the Honours List and is awarded a Companionship in the OBE.
1854	Britain formally recognizes the Orange Free State.
1854	Berend Wilhelm Feddersen demonstrates, using Leyden jars, that electric sparks are composed of damped oscillations.
1855	The Lundstrom company of Jonkoping, Sweden, begins production of red phosphorus safety matches. They hold an international monopoly on the invention until 1903, which results in white phosphorus remaining in use in many countries.
1855	Dr. John Snow publishes a second edition of *On the Mode of Communication of Cholera*, with data from an investigation of the 1854 Soho outbreak that points to the water supply.
1855	Henry Bessemer patents the steel refining process that will bear his name.
1855	Sir Isambard Brunel is named chief engineer of Britain's railways, and charged by Parliament with standardization. He begins a project that will replace all but the Welsh gauge with broad gauge rail. The cost is staggering at the outset, but the increase in passenger and freight traffic, and the higher speeds the locomotives are able to achieve, massively increase the revenues of the railways, resulting in the initial outlay being paid off in eleven years.
1855	Florence Nightingale introduces hygienic standards into military hospitals.
1855	The Wilde family moves to 1 Merrion Square. The Wildes' new home is larger and, with their sociality and success, becomes a unique medical and cultural milieu. Guests at their salon include Sheridan Le Fanu, Charles Lever, George Petrie, Isaac Butt, William Rowan Hamilton, and Samuel Ferguson.

Year	Event
1855	Princess Alice of Britain has a bout of scarlet fever, and never fully recovers.
1855 (Feb)	Sir Isambard Brunel accepts a plea from Florence Nightingale to design and build a prefabricated hospital that can be shipped to the Crimea. The Renkioi Hospital sets new standards for hygiene, sanitation, drainage, ventilation, and temperature control. Nightingale's enthusiastic praise for the design results in contracts for similar facilities, and permanent ones as well, across Europe.
1856	At the Battle of Ndondakusuka. Cetshwayo's forces pin down Mbuyazi's. British reinforcements arrive. Cetshwayo's forces are slaughtered. Mbuyazi returns home with his brother's head on the end of a spear, deposes his father, and takes the throne. Mbuyazi then signs a treaty of mutual support with the British Empire.
1856	The East India Company discontinues pension payments, touching off the Sepoy Rebellion.
1856	Sheridan Le Fanu and his family move to 18 Merrion Square. Susanna becomes increasingly neurotic.
1856	Jules Verne leaves the theatre and takes up a new career as a broker at the Paris Bourse.
1856	PT Barnum opens the first aquarium in America, as a new exhibit at Barnum's American Museum on Broadway in New York
1856	Chinese authorities seize the *Arrow* and its crew for smuggling and piracy, claiming it was not flying the British flag at the time. The ship and crew are both of Chinese origin, and were in Chinese waters. The British representation in Canton insists the ship was registered in Hong Kong and had been flying the British ensign, and so the boarding constituted an insult to the flag.

Year	Event
1856	British forces attack Canton and its outlying forts. Four sets of forts and twenty-three Chinese ships are taken or destroyed. Everything between the Canton city wall and the sea is pulled down or burned to clear the way for naval guns, and the city is bombarded, launching the Second Opium War.
1857	The British Crown revokes the East India Company's charter, nationalizes its assets, puts down the Sepoy Rebellion, and begins the Raj.
1857	Victoria grants Albert the title of prince consort, frustrated at Parliament's unwillingness to grant Albert any title other than prince.
1857	Frederick William of Prussia loses his sanity.
1857	Beatrice Mary Victoria Feodore, 9th child of Victoria and Albert, is born. The doctors warn Victoria that this should be her last pregnancy. In Nebraska, a new town is named Beatrice after the new princess.
1858	The Medical Act establishes the British register of qualified physicians.
1858	Lionel de Rothschild becomes the first Jew to be seated in Parliament, ending hundreds of years of religious discrimination.

Year	Event
1858	The Great Stink. Chloride of lime had already been dumped in the Thames by the boatload, but an unusually dry summer rendered that useless. The riverbed, a mass of rotting waste, began fermenting in the sun. On 19 June, Disraeli, the Chancellor of the Exchequer, and a number of MPs had to flee a committee room because of the stench. Twelve days later, the Metropolitan Board of Works had funds and authority for a city-wide sewage project, under the Metropolitan Local Management Act for the Purification of the Thames and the Main Drainage of the Metropolis. "The causes of the nuisance are perfectly clear, so are the means of cures; but … no Minister has the courage to demand [what it will cost]. If it were a question of arming ships, or embarking soldiers, there would be not a day's hesitation in asking for ten times the sum – it is so much better to spend money in killing our neighbours than in keeping ourselves alive and well." - *Illustrated London News*, 26 June 1858
1858	The Treaties of Tientsin halt the Second Opium War, with Britain, France, Russia, and the U.S.A. opening embassies in Peking, ten more ports being opened to foreign trade, foreign ships being given navigation rights on the Yangtze, foreigners allowed to travel within China proper, and a war indemnity to be paid to Britain and France.
1858	Bessemer and the Manchester firm of W&J Galloway go into partnership, and begin production of steel at Sheffield. The price of steel in Britain subsequently drops from £40 per long ton to an average of £7 per long ton.
1858	The first successful transatlantic telegraph cable is laid. The test message of 98 words takes 16 hours to transmit, due to line noise, signal degradation, and other technical issues.

Year	Event
1858	Charles Wheatstone patents an automatic telegraphic sender, using pre-punched paper tape, achieving 400 wpm.
1858	William of Prussia becomes regent. He makes it clear he does not want a united Germany, full of unruly non-Prussians.
1858	A Royal Commission under Secretary of State for War Jonathan Peel begins investigations into the impact of the Crimean War. In addition to the obvious instances of incompetence and maladministration which had been revealed, it was evident the provision of an army of only 25,000 in the Crimea had stripped Britain of almost every trained soldier. The lesson was reinforced by the Indian Mutiny, which once again required almost the entire usable British Army to suppress.
1858	After Edwin Chadwick is sacked, having become increasingly unpopular, the General Board of Health is dissolved and the Metropolitan Board of Health is created.
1858	Susanna Le Fanu suffers an hysterical attack and dies the following day under unclear circumstances. Sheridan Le Fanu stops writing until 1861.

Year	Event
1859	Prince Wilhelm of Prussia is born to Frederick and Victoria. His left arm is withered, due to the long and difficult breech birth. Victoria sent Dr. James Clark, her personal physician, Mrs. Innocent, a midwife, and a bottle of chloroform. Vicky was initially attended by Dr. Wegner, who called in Dr. Eduard Martin. Clark was relegated to observing. Being foreign, he would have been blamed for any trouble. Martin discovered the baby to be in a breech presentation. Martin requested Clark to administer chloroform, over Wegner's objection. The difficult delivery damaged the baby's left arm, which was folded up behind its head. The baby did not breathe until massaged, which further damaged the arm, and may have caused brain damage. Wilhelm's bad start affected the rest of his life.
1859	The Swedish V4 Engine is introduced. Soon after, the firm declares bankruptcy, initial sales not having been sufficient to pay the design and production costs.
1859	Charles Darwin publishes *On the Origin of Species through Natural Selection*.
1859	The *Great Eastern* undergoes sea trials.
1859	Robert Stephenson dies. His remains are given honours appropriate to a long standing member of Parliament.
1859	Sir Isambard Brunel collapses due to a stroke. He survives, but is paralysed on his left side.
1859	The Aquarial Gardens open in Boston.
1859	The naval convoy carrying the new British and French envoys destined for Peking runs afoul of Chinese forces at the mouth of the Hai River. Fighting erupts between the British fleet and the Chinese fort. The British fleet withdraws under cover fire from an American battle group.

Year	Event
1860	Princess Charlotte of Prussia is born to Frederick and Victoria.
1860	Prince Albert, spending some time in Coburg to deal with Bertie's increasingly scandalous behaviour, is injured in a coach crash. Queen Victoria pours vast sums of money and Royal command into his medical care. The constant medical attention leads to his survival. Victoria, still having the mental and emotional support of her beloved husband, develops a fiery passion to see him right no matter what. A reward of several hundreds of thousands of pounds is offered to the doctor or doctors who come up with a cure or solution to his paralysis, and to the fevers that nearly killed him during recovery from his injuries. This pushes medical development to a breakneck pace. Over the next few years, major advances are made in water purification, sanitary hospital environs, and surgical procedures. Paralysed from the waist down, Prince Albert uses his limited influence and power to push for the development of better science and technology to improve the quality of life.
1860	The Nightingale Training School for Nurses is established.
1860	Mass production of the Spencer lever-action repeating rifle begins in the deep South, just a few weeks after the inauguration of President Lincoln.
1860	The Jardin d'Acclimatation in Paris and the Viennese Aquarium Salon both open, and argue for years as to which was the first European aquarium.
1860	The Cobden-Chevalier Treaty opens free trade between France and England. The economic knock-on effects destabilize both economies for a short time. They become interdependent as they stabilize, which worries both nations.

Year	Event
1860	The *Great Eastern* takes her maiden voyage, from London to New York.
1860	Vicky and Fritz have their second child, Victoria Elizabeth Augusta Charlotte.
1860	A joint British and French task force sails from Hong Kong, captures two port cities, then besieges the fort at the Hai River. With British troops marching on the imperial capital, the Emperor sends representatives ostensibly to negotiate, but instead has the British delegation arrested and tortured to death in a particularly grisly and barbaric fashion.
1860	British forces take Beijing. Two of the Summer Palaces are looted and burned to the ground. The *Fire Drake Manual* is discovered during the library packing-up, and sent up through the command chain, with copies and translations being made at various stages. The Emperor flees the city, leaving his younger brother to sign whatever the European forces demand. The Treaty of Tianjin cedes Kowloon to Britain.
1860	Prince Louis of Hesse and the Rhine becomes engaged to Princess Alice. Prince Albert has the Talk with Alice. Louis stays for Christmas.
1860	A telegram from Sans Souci to the Neue Palais summons Fritz and Vicky to the deathbed of King Frederick William IV. He dies one hour after midnight, leaving William and Augusta as king and queen, and Fritz and Vicky as crown prince and princess.
1861	The Battle of Fort Sumter begins the American Civil War, later known as the War of Secession.
1861	Russia emancipates the serfs. This does not improve their situation.
1861	James Clerk Maxwell takes the first colour photograph.
1861	Louis Pasteur proposes the germ theory of disease.

Year	Event
1861	The Confederacy signs a treaty with the Mormon Church, acknowledging it as the rightful government of the Utah Territory, which the Mormons rename Deseret. This gives the Confederacy access to plentiful supplies of copper. Brigham Young, President of the Church of Latter-Day Saints and former governor of the Utah Territory, takes office as Deseret's first President, openly merging church and state.
1861	Victor Emmanuel II of the House of Savoy is proclaimed king of a newly united Italy. He proclaims Rome to be the capitol of Italy, even though it's held by Papal forces and not actually part of the newly-formed kingdom, and actually rules from Florence.
1861	William I is crowned King of Prussia. Prince Frederick William becomes Crown Prince Frederick.
1861	Sheridan Le Fanu becomes editor of Dublin University Magazine. He publishes *The House by the Churchyard* and *Wylder's Hand*.
1861	James Clerk Maxwell's paper *On Physical Lines of Force* lays the mathematical groundwork to prove Faraday's idea of lines of flux. Faraday by this time is becoming senile, and is unable to contribute.
1861 (16 Mar)	The duchess of Kent dies at Frogmore House in Windsor Home Park, with her daughter Queen Victoria in attendance. Alice spends considerable time at Frogmore, caring for her grandmother and then helping her mother through the grieving process. Victoria nonetheless has a nervous breakdown, and orders her mother's rooms to be left undisturbed.
1862	Prince Henry of Prussia is born to Frederick and Victoria.

Year	Event
1862	An annual honour for notable scientific/technological achievement, the Victoria Prize, is established by the Crown. As the prizes are very rich, many outside of the Empire debate applying. Other nation states try to copy the idea, but have no built-in system for other than monetary awards. For example, long in the tooth aristocrats looked for outside resources (American money for example) to attempt to compete for these honours.
1862	Sultan Abdulaziz continues the Tanzimat reforms. His lavish expenditures, constant travel to foreign nations, and alliances with Russia, the traditional enemy of the Ottoman Empire, quickly make him unpopular.
1862	Louis Pasteur demonstrates germ theory, creating the pressurized heat sterilization technique later known as pasteurization.
1862	Code and conduct of a "Gentleman" becomes the norm, especially in the middle and upper middle classes. The highest levels still do what they want, feeling entitled, and no one else is going to say anything, although the best will do what is expected and provide the example for others to follow. A feeling that merit and achievement will be rewarded with entry to higher social circles begins to spread.
1862	CSS *Virginia* is launched, the class ship of a new line of casemate Confederate ironclads. At the Battle of Hampton Roads, CSS *Virginia* sinks USS *Monitor*, changing the course of Union ironclad design.
1862	Charles W. Smith replaces the sulfur and beeswax in matches with paraffin, creating "parlour matches", with a much reduced odour.

Year	Event
1862	After three years of frustration over his physical limitations, Sir Isambard Brunel falls out of bed trying to get up on his own, fracturing his neck. His body lies in state in Westminster Abbey before being interred in the family plot at Kensal Green in London. Queen Victoria gives permission for the cortege to pass through Hyde Park. Over 3000 tickets are sold for spectators. In his eulogy, he is called 'the greatest engineer of the present century'.
1862	Otto von Bismarck is appointed Minister-President of the Diet by King William I of Prussia. Bismarck's policy of Blood and Iron begins to create friction between the King and the Crown Prince.
1862	William Henry Ward patents wireless telegraphy using atmospheric convection currents. Mahlon Loomis patents wireless telegraphy using atmospheric electricity. Loomis had been transmitting signals between mountain peaks in the Blue Ridge Mountains of Virginia using wire-strung kites as antennae since 1856. The two patents were not compared until after the War. Loomis' system was not useful in the War due to to its short range, obvious antennae, and dependence on atmospheric conditions. It only worked when the potential for a thunderstorm existed, but not in clear weather or during an actual storm. Also, the kites had to use wire instead of string, and had to achieve the same altitude in order to have the same antenna length. His experiments were done in Floyd County, Virginia, as Loudoun County, where he held property, was too dangerous due to the War.
1862	Maxwell's paper on lines of flux is re-published with sections added covering electrostatics and displacement current. This includes the Faraday Effect, the rotation of the plane of polarisation of light in a magnetic field.

Year	Event
1862	The Royal Commission on the military turns in its report, but few of its lessons are immediately implemented. The main obstacles are objections by the defunct British East India Company and its executors, who wish to maintain their own military establishment, and by old-line senior officers who oppose almost any reform on principle. The arch-conservatives among the Army's officers are led by the Commander-in-Chief of the Forces, Prince George, Duke of Cambridge, Queen Victoria's cousin and almost the last of the typically Hanoverian characters thrown up by the English ruling dynasty, who derived his ideas on drill and discipline from Butcher Cumberland and the Prussian school of Frederick the Great.
1862	The Queen's Silver Jubilee. The celebration is somewhat muted due to Prince Albert's still-fragile condition, and rumours abound he has suffered more than his injuries and a bout of cholera. However, the banquet brings together the crowned heads of most of Europe, and the formal ball brings a brand new surprise: the Crown Prince leads his Queen in the first waltz, with the aid of a new generation of steam-powered walking machine.
1862	Princess Alice marries Prince Louis. Vicky is unable to attend, staying in Berlin while pregnant with her second son. Alice and Louis are married at St. James' Palace, like Vicky had been, creating a joyous celebration not only of the nuptials but of Albert's return to public life, after two years of injury, illness, recovery, and rehabilitation. The only dark spot was the death of the grand duchess of Hesse, Louis' aunt, a month previously.

Year	Event
1863	The CSA Merseyside ship incident escalates political tensions across the Western world, and brings some of the more questionable activities of the industrialists, aristocrats, secret societies, and the like to public view.
1863	The London Underground (subway) begins regular passenger service, using steam engines.
1863	Paired steam tractors are put into use by John Fowler to drag an unpowered multiple-harrow plough back and forth across a field by cable, cutting the time needed for ploughing down substantially. The heavier steam plough, with its relentless and untiring mechanical horsepower, can also break up ground a horse-drawn plough can't, putting more acreage under cultivation.
1863	A military report not widely circulated notes the regular British military has managed to avoid facing a technologically/industrially matched foe for quite a while, and thus large battles have kept line formations. Suggestions for revision of formation strategies are generally ignored.
1863	Ferdinand Lassalle begins meeting with Otto von Bismarck, Minister President of Prussia.
1863	Price wars with the Cunard and Inman lines leave the Great Western Steamship Company deeply in debt. The *Great Eastern* is laid up.
1863	An addendum to the Education Act, requested by Prince Albert, makes elementary education compulsory in England and Wales. Firms employing child labour skirt the Act by hiring a "teacher", often just a literate teenage girl who reads out loud to the children while they work. Prince Albert's efforts do manage to introduce some Prussian concepts to schooling, such as map reading to the lower classes and mathematics to the middle class.

Year	Event
1863	Schultze Powder is developed in Prussia. Its deliquescence makes it less than useful.
1863	Crown Prince Frederick of Prussia denounces Bismarck's restrictions on freedom of the press, at an official reception in Danzig. Frederick is relegated to his military position and excluded from political life for the remainder of his father's reign.
1863	Jules Verne's novel *Five Weeks in a Balloon* is published, leading to a long-term contract as a serials writer for a magazine.
1863	The New York City Draft Riots start over the poor protesting against the rich being able to buy commutations and send someone else to military service instead of going themselves. The open corruption of the city's Democratic political machine doesn't help. They expand over several days into race riots, targeting blacks especially. The Colored Orphans Asylum is burned to the ground, but thanks to the city's largely Irish immigrant police force, no lives are lost. Most of the city's black population flees to Williamsburg, New Jersey, and further. The Confederate press makes considerable grist from the events, and the Union takes a beating in the British and European press.
1863	The wet picker, a cotton harvesting machine using smooth spindles kept damp, proves successful. The initial model can only pick one row of cotton at a time, but still replaces forty labourers with one machine and its operator. The Confederacy is able to continue producing cotton, their most lucrative export, without using slaves. Later models can pick multiple rows at a time, separate seed from lint, pry open bolls that have not opened on their own, bale the harvested plants for removal from the field, and bale the raw cotton for the ginners.

Year	Event
1864	Ferdinand Lassalle wins a duel against a Count from Wallachia. His conversations with Otto von Bismarck lay the foundation for Prussian Socialism.
1864	Thomas Briggs, a well to do banker, is murdered in a first class compartment of the Fenchurch to Hackney line, becoming the first victim of a murder aboard a train in English history. The suspect, Franz Muller, a tailor recently immigrated from Germany to London, is captured in New York, debarking from a sailing ship, by a Scotland Yard detective who outran him aboard a steamship. Muller is convicted and hanged; his alibi, a known prostitute, discredited by her reputation. The incident creates bad feelings between native Brits of London and German immigrants, at the time the largest immigrant group in the East End, lasting for a generation.
1864	Maximilian I is crowned Emperor of Mexihco.
1864	The Great Eastern Steamship Company is formed, by Daniel Gooch, Thomas Brassey, and John Pender. They purchase the *Great Eastern*, and begin converting it for cable laying, chartering the ship to the Telegraph Construction and Maintenance Company.
1864	Prince Sigismund of Prussia is born to Frederick and Victoria.
1864	Sheridan Le Fanu publishes *Uncle Silas*.
1864	Jules Verne publishes *Journey to the Center of the Earth.*

Year	Event
1864	Germany takes Schleswig and Holstein from Denmark, after Denmark politically annexed Schleswig. The family that had ruled the two duchies, Augustenberg, are set aside, eliminating Christian's claim to the throne and leaving Lenchen's future husband with an empty title, no property, no income, and no prospects. Vicky and Fritz support the claim of the Augustenbergs, which puts them in opposition to Bismarck.
1864	The Marine Aquarium Temple opens at the Zoological Gardens in Hamburg.
1864	President Jefferson Davis of the Confederacy dies of a stroke. Alexander Stephens becomes President.
1864	CSS *Hunley* sinks the USS *Housatonic,* and returns to its tender successfully.
1864	The Confederacy declares slavery illegal, rolling the cost of slaves into indentures against them in a legal fiction. Britain, France, and Bolivia sign alliances with the Confederacy.
1865	The *Great Eastern* lays 4200 km of transatlantic telegraph cable before the cable snaps and the end is lost.
1865	Frederick Augustus Abel patents a process that makes guncotton much safer to manufacture, after the explosions of two guncotton factories in Austria. Within weeks, the Prussians have either copied or purloined the process.
1865	James Clerk Maxwell publishes *A Dynamical Theory of the Electromagnetic Field*, demonstrating that electric and magnetic fields travel through space as waves moving at the speed of light. Maxwell proposes that light is in fact undulations in the same medium that is the cause of electric and magnetic phenomena.
1865	Jules Verne publishes *From the Earth to the Moon*.

Year	Event
1865	The ITU, International Telegraph Union, is founded, a standards body regulating international telegraphy. The ITU tries to restrict the use of telegraphic codes by private citizens, but ultimately fails and abandons the effort.
1865	The first ghost numbers are detected in the telegraph network, strings of numbers with no header, no origin code, and no destination tag. These become a legend among telegraph operators, and the subject of considerable discussion in the industry, as nobody can trace where they are coming from, and nobody knows, or will admit to knowing, what their purpose is.
1865	Work begins on the Victoria Embankment, creating a frontage for the Thames on the north side of the river covering a network of transverse sewers routing North London's sewage out to the estuary.
1865	Rudyard Kipling is born in Bombay.
1866	Austria is defeated by Prussia. In a desperation move, Franz Joseph I, Emperor of Austria, is crowned King of Hungary, creating the Austro-Hungarian Empire.
1866	An armistice is declared between the Union and the Confederacy, both nations worn down to the point where neither can successfully prosecute the war any further. The present battle lines are declared the national borders.
1866	Bessemer buys Robert Mushet's patents, rather than deal with the embarrassment of legal action and reputational damage, even though he had previously proved that Mushet's procedure was irrelevant to the Bessemer process.
1866	Prince Sigismund of Prussia dies at the age of 2. Princess Victoria of Prussia is born to Frederick and Victoria.
1866	Cambridge University builds its first scientific research laboratory.

Year	Event
1866	Elihu Thomson and E.J. Houston work with high frequency oscillatory discharges, a prerequisite to radio development.
1866	Construction begins on the Albert Embankment on the south side of the Thames.
1866	The *Great Eastern*, having found the dropped end of the 1865 cable and connected to it, completes laying the second successful transatlantic line. This cable carries 8 words per minute.
1867	Diamonds are discovered at Kimberley, starting the South African diamond rush.
1867	Second Reform Bill reduces property qualification for male voters; John Stuart Mill's amendment to women by substituting 'person' for 'man' was defeated.
1867	The Constitution Act creates the Dominion of Canada.
1867	The conservadores decide that the federalist system of the liberales is preferable to a monarchy with a foreign king, and switch sides. Maximilian is executed, and Porfirio Diaz, a republican general, is elected Presidente of the reborn Estados Unidos de Mexihco.
1867	While Sultan Abdulaziz Bahtsiz, the Unfortunate, is in Britain, the Young Ottomans seize power, placing their patron Mustafa Bahgat 'Ali Fazl Pasha on the throne, where he reigns as Suleiman III. The new sultan reinvigorates the Tanzimat reforms and evolves the Ottoman Empire into a constitutional monarchy.
1867	The stock ticker, and the related news ticker, are invented. They get their name from E.A. Callahan, due to the noise they make. These are dedicated hard terminals reporting fluctuations in the price of selected commodities, stocks, or other financials, or scrolling news selected by keyword, region, or other criteria. The tapes are cut up and pasted to sheets of regular paper for distribution.

Year	Event
1867	Charles Wheatstone's electric Jacquard (an automatic telegraphic sender and repeater) goes into widespread use, especially for news transmission.
1868	Charles Wheatstone returns the Albert Medal from the Royal Society of Arts because it had already been offered to William Fothergill Cooke. Wheatstone makes the next year's Honours List and is knighted, while Cooke has to make do with the academic honour and a desperately-needed cash award coming with it.
1868	Henry Bessemer designs a passenger steamship where the cabins are set on gimbals, using hydraulics controlled by a Differential Engine and a spirit level with a light shining through it. The initial tests run into a series of problems – the ship crashes into the Calais pier on its maiden voyage, a feedback loop tears the cabins loose from the hydraulics, and investors pull out of the project.
1868	Moshoeshoe, "The Razor", the Great Chief of the Basotho, signs a treaty with Britain, making Basutoland a British protectorate and ending threats from the Zulus and the Boers.
1868	The Liberal party, under William Gladstone, wins the Parliamentary elections. An era of reform begins.
1868	Gladstone appoints Edward Cardwell to the post of Secretary of State for War. Cardwell abolishes flogging and other harsh disciplinary measures in the army during peace time. This action is opposed by nearly every senior officer, who use the opinions of the Duke of Wellington to validate their objections. Flogging is retained as a punishment on active service, on the pretext that extraordinary powers of punishment might be required in the field, until finally abolished in 1876.

Year	Event
1868	Prince Waldemar of Prussia is born to Frederick and Victoria.
1868	The Pharmacy Regulation Act of 1868 sets out the examination protocols and licensing requirements for chemists. No longer would anybody with a set of glassware be able to hang out a shingle on the high street as a pharmacist and druggist. Applicants had to have an academic background supporting the trade, and had to pass a multi-part exam, consisting of a paper in Latin, a paper on chemistry, a paper on physics, an identification challenge with a large tray of unlabelled medication components, and a practical test, which usually consisted of making suppositories. (The Victorians used a lot of suppositories, and it's easy to tell a well made one from a bad one). The Act did not specify "men" when it set out the strictures as to who could take the tests. Thus, quite a few women came forward, and not only took the examinations, but scored very highly, taking a number of prizes and gaining recognition. Thus, women entered the world of commerce as high street chemists.
1868	The telegraph line from London to Bombay goes live.
1868	The Royal Post Office takes control of telegraphy in a benevolent monopoly. Telegraph service through the Post Office quickly becomes a primary means of transmitting news and information for the common people.
1868	James Clerk Maxwell publishes his paper, *On Governors*. It contributes substantially to the design of steam engines, and to the nascent study of control theory. Edouard John Routh uses it to derive the equations for the general class of linear systems.

Year	Event
1868	After Prince Albert privately shames a number of reactionary MPs and Lords, making it very clear they will suffer public shame if they are responsible for France outpacing Britain in technological development, the Red Flag provisions of the Locomotives Act die quietly. The Act that passes allows for progress from horse to steam, although the squirearchy continues to protest and make strident complaints in the press.
1868	The Abbey Mills pumping station opens, and London stops having cholera outbreaks. This station joins Crossness and two other great pumping stations in sending London's waste, gathered in the transverse sewer under the Embankment, and the other intercepting sewers, out to Abbey Wood, where at high tide it's released into the ocean and swept out to sea.
1868	Oriel Chambers, Liverpool, installs paternoster elevators.
1869	Mbuyazi dies. His second son Nbomani ascends to the Zulu throne.
1869	Charles Parsons, a young engineer at W.G. Armstrong, invents the micro steam engine. This revolutionizes steam power and heads off later work in petroleum fuels and internal combustion. Between the installed base of steam power and coal fuel, the cost of the new engine, its fuel incompatibility, and the need and expense to create a new fuelling infrastructure, internal combustion will not be adopted in the British Empire for generations. The Prussians tinker with it, but that's a much later development.
1869	The Suez Canal opens.
1869	Imprisonment for debt is abolished by the British Parliament.

Year	Event
1869	The Treaty of Aliwal is signed between the British and the Boers, defining the borders of Basutoland, leaving the Lost Territory west of the Caledon River in Boer hands and effectively halving the Basotho's range. This will not turn out well.
1869	Horace Bushnell, an influential Protestant theologian who had become increasingly unstable over the past few years, frustrated that his book preaching against women's suffrage received so little support, blows up a suffragette campaign office. No expert with explosives, he dies in the blast.
1869	A preliminary poll shows considerable support for a reunification of Georgia in the Americas.
1869	Typhus and typhoid are recognised as separate and distinct diseases. Typhus is vectored by lice or fleas, and also known as gaol-fever. Typhoid is water-borne.
1869	Jules Verne publishes *Twenty Thousand Leagues Under the Sea.*
1869	Britain nationalizes telegraphy under the Post Office, formalising an arrangement begun a year previous. Private leased lines remain available, and are popular in larger firms, as they can carry as much traffic as their bandwidth can support for a flat rate per month.
1869	The Berlin Aquarium Unter den Linden opens, a three story building also including an aviary, the first aquarium in Europe separate from a zoo or other menagerie.

Year	Event
1869	Cardwell withdraws troops from self-governing colonies, which are encouraged to raise their own local forces, resulting in the colonial militias and native irregulars. This scattering of troops over far-flung colonies was likewise a Wellingtonian policy. Its initial motives had been to avoid the traditional British suspicion of a standing army (led by the Whigs). The policy was a failure on economic practicality, and also prevented training at any level above that of battalion. By 1871, 26,000 British troops will have been withdrawn from overseas territories and returned to Great Britain.
1869	The Albert Embankment is completed. In a serious design flaw, it does not include interceptor sewers.
1869	The University of London becomes the first in the UK to admit women on equal terms with men.
1869	Britain refuses the Alabama Claims, in which the Union demands reparations for naval losses to British-built Confederate ships. Lord Redesdale maintains the Union would have to seek reparations from the Confederacy, and when the Chairman of Committees renders such an opinion, the House of Lords follows.
1870	Napoleon III of France starts a war with Prussia, and is roundly defeated. France loses its emperor and the provinces of Alsace and Lorraine.
1870	Sir Harry Verney discounts Florence Nightingale's letter defaming Mary Seacole, and assigns Miss Seacole as director of a British nursing and care unit to be sent to the Franco-Prussian War, under the auspices of the British National Society for the Relief of the Sick and Wounded. Miss Seacole acquits herself admirably, but returns to London in June of 1871, after the end of the war, in poor health.

Year	Event
1870	Princess Sophie of Prussia is born to Frederick and Victoria.
1870	The Equitable Life Building, NYC, becomes the first in North America to have passenger safety elevators.
1870	W. E. Forster's Education Act makes elementary education available to all children in England and Wales and establishes local School Boards. Everyone who pays property taxes is eligible to vote for school-board members, and women may be elected to the boards.
1870	Matchsticks start being fireproofed to prevent burned fingers, creating the "drunkard's match".
1870	Bessemer, having found new funding through the military for the Bessemer Saloon, completes the design for the counter-rolling ship cabin. The design is implemented on a hospital ship, and receives warm praise from the medical establishment. The Bessemer Saloon will never become standard design – it's far too complicated and expensive – but can be found aboard special-purpose ships for many years afterwards.
1870	Nbomani signs a treaty with the British to stabilize his throne, creating the Zulu Protectorate.
1870	The population of North Georgia votes overwhelmingly for reunification with South Georgia and secession from the Union.
1870	Italian troops march on Rome, and confront the hopelessly outmanned and outgunned Vatican troops of Pope Pius IX. The Pope barricades himself in the Vatican. A plebiscite annexes Rome formally to Italy. This begins the Papal Captivity, or the Era of Papish Intransigence, depending on who's writing the article.
1870	Moshoeshoe of the Basotho dies.
1870	The Martini-Henry breech-loading rifle is introduced as the main weapon of the infantry.

Year	Event
1870	The Hansen Writing Ball, the first commercial typewriter, appears on the market.
1870	Women are admitted to the Cambridge Local. This exam not only provides measurement of academic achievement on a standardized scale, but entry to professional schools such as engineering and military colleges, and to positions in civil service and teaching.
1870	Jules Verne is made a Chevalier of the Legion d'honneur.
1870	Parliament votes for 20,000 additional men for the army and two million pounds on a vote of credit. This is followed by one of the most successful military pamphlets to appear in all Victorian England, titled *The Battle of Dorking*. Written by Colonel (later General) Sir George Chesney, head of the Indian Civil Engineering College. It raises the idea that, despite the acts of Parliament during the previous year in regard to the military, Britain faces the possibility of a German invasion.
1870	Cardwell abolishes bounty money for recruits, and sets out guidelines for the swift discharge of known bad characters from both army and navy.
1870	The Army Enlistment (Short Service) Act is signed into law. The maximum enlistment drops from 21 years to 12, with the standard being 6 years of active service and 6 years of reserve service. The military grows in strength considerably as a result.
1870	The War Office Act reorganises the War Office. The various sections of the War Department are all combined in the same building; the Horse Guards are included under the jurisdiction of the War Office.
1870	The Victoria Embankment is completed.

Year	Event
1870	The 15th Amendment to the Union Constitution is ratified, prohibiting denial of suffrage based on race, colour, previous condition of servitude, or gender. Blacks and women get the vote. Civilization fails to collapse overnight.
1871	Basutoland is annexed to the Cape Colony.
1871	Oscar Wilde begins at Trinity College, Dublin, with a royal scholarship to read classics. He becomes a prominent student of J.P. Mahaffy, and a very close friend.
1871	The various German states are united in the Prussian Empire, with William I as the first Emperor, Bismarck as the first Chancellor, and Frederick as Crown Prince.
1871	The Regulation of the Forces Act prohibits the sale of commissions for officers in Her Majesty's Armed Forces, and allows the government to seize control of the railroads in an emergency.
1871	The Georgian Reunification. North Georgia formally secedes from the Union, and joins the Confederacy, as part of the reunified state of Georgia.
1871	Trade unions are legalised in the British Empire.
1871	James Clerk Maxwell publishes his work in thermodynamics. He proposes the thought experiment that becomes known as Maxwell's demon, which discusses the second law.
1871	A statue of Samuel Morse is unveiled in Central Park, NYC.

Year	Event
1871	Cardwell passes the Regulation of the Forces Act, with less Parliamentary opposition and less reluctance on the part of Her Majesty to sign it into law than the previous year's effort. This divides the country into 66 Brigade Districts (later renamed Regimental Districts), based on county boundaries and population density. All line infantry regiments now consist of two battalions, sharing a depot and associated recruiting area. One battalion serves overseas, while the other is stationed at home for training and recruiting. The militia of the area becomes the third (reserve) battalion. This Act also formally ended the Purchase System, by which commissions and officer rank promotions were bought. Monetary compensation is paid out to 6,938 army officers with vested rights.
1871	James Clerk Maxwell becomes Cavendish Professor of Physics at Cambridge.
1871	The Great Chicago Fire. Over 3 square miles of the predominantly wooden city burns, leaving hundreds dead and a third of the city homeless. The same night, Peshtigo, WI, is annihilated by a blaze that also burns the Door Peninsula in Green Bay, and an area of forest the size of Rhode Island, nearly 4000 square miles, creating a firestorm that incinerates a known 1500 people and possibly thousands more. Separate blazes destroy Holland, Manistee, White Rock, and Port Huron in Michigan. Four days later, Windsor, Ontario burns, with over 100 buildings in the city's downtown destroyed.
1872	Princess Margaret of Prussia is born to Frederick and Victoria.

Year	Event
1872	Britain annexes Kimberley and the surrounding land, touching off another diplomatic incident with the Boers. Cecil Rhodes, a British entrepreneur, backed by Rothschild money, had already bought most of the smaller mining concerns in the area, and the larger De Beers claim.
1872	Cecil Rhodes dies of a heart attack at the age of 19, at the diamond fields of Kimberley. N.M Rothschild and Sons continue with their plans, working through Rhodes' brother Herbert, John X. Merriman, and Charles Rudd, eventually creating the De Beers Mining Company and the diamond syndicate. De Beers promulgates Rhodes' ideas of economic racism, needing a controllable work force for the diamond mines.
1872	South Carolina secedes from the Union and joins the Confederacy. A plebiscite in Tennessee fails to achieve the necessary majority, and Tennessee remains in the Union. Talk of war in the Union is met with overwhelming opposition, largely from the newly-enfranchised women, who sign dozens of petitions promising to vote out any politician who supports a renewed war, swearing they will not send off any more of their sons to die.
1872	The Prussians develop oxy-acetylene welding. The Prussians make use of acetylene, which is a coal byproduct used extensively as a precursor for industrial chemicals, and Priestley's phlogisticated air, in a complicated brass contraption that requires considerable training to use safely. Doing it wrong leaves a very large crater.
1872	Sultan Suleiman III's first son, Muhammed Mustafa, dies in a fall from his horse during military exercises.

Year	Event
1872	The Medical Act gives British women the right to hold medical degrees, and creates the requirement for medical and university institutions to allow them equal access to education. The Married Women Property Act enables wives to buy, own, and sell property, and to keep their own earnings. The New Reform Act of 1872 gives urban woman who are heads of households and were once married (i.e., widows) the right to vote in the elections of the House of Commons. While this results in only a very small group of women voters, it sends a strong and empowering message to the female population of the nation.
1872	Mary Seacole becomes the first black person to receive a knighthood, when Queen Victoria creates her a Dame Commander of the Bath. The controversy takes years to die down, and only does so after the first Boojum is knighted and people have something else to talk about.
1872	Sheridan Le Fanu's short story collection *In A Glass Darkly* is published, containing "Carmilla", which will be one of his most remembered stories.
1872	Jules Verne publishes *Around the World in Eighty Days*.
1872	Siemens & Halske introduces the loudspeaker. By the end of the year, the loudhailer is standard equipment on Prussian warships. The battery-powered loudhailer, known in England as a megaphone, is introduced just before the end of the year.
1872	Joseph Stearns patents working duplex transmission, doubling the bandwidth of the existing telegraphic networks.
1872	Jardine, Matheson, and Co. drop out of the Chinese opium trade.
1872	Samuel Morse dies.

Year	Event
1873	Women are officially admitted to Cambridge University. The Oxford Local begins admitting women.
1873	The London Hydraulic Power Company is chartered by act of Parliament, evolving from the Steam Wharf and Warehouse Company founded in 1871.
1873	James Clerk Maxwell publishes *A Treatise on Electricity and Magnetism*, with four partial differential equations later known as Maxwell's Equations. This paper is known as the Second Great Unification in physics. Oliver Heaviside replaces electromagnetic potential fields in the equations with force fields, reducing the complexity to four differential equations that become known as Maxwell's Laws. Not until many years later is the idea of the luminiferous ether, the medium through which light allegedly moves, discarded.
1873	The London Times installs electric lighting in its machine rooms.
1873	George FitzGerald proposes that EM waves could be generated by capacitor discharge. A way of detecting such waves is sought.
1873	The Union opens the National Aquarium in Washington, D.C.
1873	Robert Louis Stevenson visits England, meets Sidney Colvin and Frances Jane (Fanny) Sitwell. Colvin remains important in Stevenson's life thereafter.
1873	Sheridan Le Fanu dies in Dublin at the age of 58 after a bad attack of bronchitis, having spent his last twelve years in virtual seclusion in the house on Merrion Square.

Year	Event
1874	Alabama and Louisiana are reunified as Confederate states following popular votes in the Union-controlled segments for secession. Votes in North Carolina and Virginia fail to reach the necessary margins for opening discussion of secession in the state and commonwealth governments.
1874	Royal Albert Hall and the British Museum install electric lighting.
1874	Women are admitted to Oxford University, although not to Christ Church College, which remains a bastion of academic monasticism.
1874	Oscar Wilde moves to Magdalen College, Oxford, where he reads Greats, fails to be elected to the Oxford Union, and becomes a member of the Apollo Masonic Lodge.
1874	Due to shockingly bad planning, the United Kingdom general election sees the Liberals, led by William Ewart Gladstone, win a majority of the votes cast, but Benjamin Disraeli's Conservatives win the majority of seats in the House of Commons, largely because the Liberals neglected to put up candidates for nearly 100 seats. Disraeli becomes the new Prime Minister. The Conservatives hold the government for the next decade. Edward Cardwell is put out of office, but his reforms remain in place despite the efforts of the remaining die-hards.
1874	Edison patents quadroplex transmission by superimposing two duplex telegraphic lines.
1874	The Chelsea Embankment is completed.
1875	John Tyndall discovers penicillin, giving the British a huge edge in medicine.

Year	Event
1875	The Suez Canal, critical to the Raj, is primarily owned by the Kediv. He offers the shares to Britain to put off his bankruptcy. The Crown approves Disraeli's purchase of the shares. Disraeli goes to Baron Rothschild for the money. This gives Rothschild a grip on the British government. Britain's ownership of the Suez Canal draws the Empire into the Middle Eastern conflict on the side of the Ottoman Empire against the Russians, intensifying the Great Game. Gladstone vehemently opposes this. Disraeli calls Gladstone's writings vulgar, but Gladstone has the public at his back. Disraeli has to send the British fleet to back up the Ottomans against the Russians, which brings public sentiment back to Disraeli. The Russians back down and the route to India is secured.
1875	The Explosives Act is passed, banning chemists from making fireworks after some spectacular accidents. Fireworks and other explosives must henceforth be made by licensed firms only in government-inspected facilities. This Act is later used against the early Newtonians.
1875	The Hansen tall model typewriter, which requires no electricity, enters the market. Typewriters start becoming standard equipment in business.
1875	The German company Bayer, founded in 1863, synthesizes acetylsalicylic acid, which had previously only been obtained by reacting salicylic acid and acetyl chloride, with the acid precursor coming from plant extracts. Bayer markets the compound as Aspirin, after spiraea ulmaria, or meadowsweet. Within two years, Bayer Aspirin is sold around the world.
1875	Efforts by the Colonial Secretary to organize a federation between the British territories in Africa, the Orange Free State, and the Transvaal Republic fail.
1875	Victoria Station installs electric lighting. Work begins on electric signals, which will lead to signal interlock.

Year	Event
1875	Werner von Siemens invents the electric elevator.
1875	Sir Charles Wheatstone dies.
1875	Sidney Colvin and Robert Louis Stevenson visit the Edinburgh Infirmary, and meet William Ernest Henley. Stevenson and Henley collaborate until 1888, when they quarrel and break off their friendship. Henley serves as the model for Long John Silver.
1875	Robert Louis Stevenson is admitted to the Scottish Bar, but never practises law.
1875	Edward Alexander Crowley is born to wealthy upper class parents. His father, Edward, is an engineer and heir to the family brewery, married to Emily Bertha Bishop of Devon and Somerset. Both are members of the Exclusive Brethren, a radical and apocalyptic Christian sect, with Edward pater being a fanatical preacher.
1875	Suleiman III dies. His second son Ibrahim succeeds him as Sultan Mahmud III, focusing heavily on technological advancement and a separation of religion from the state.
1876	Prince Albert organizes a 25th anniversary replay of the Crystal Palace Exhibition.
1876	Mississippi is reunified following a popular vote in the Union-controlled segment for secession. Another plebiscite in Tennessee again fails to draw a sufficient majority.
1876	Princess Nazli organizes the first literary salon in Istanbul.
1876	Queen Victoria and Prince Albert add a typist to their personal staff. The era of handwritten royal documents comes to an end.

Year	Event
1876	Heinrich Hertz, challenged by Professor von Helmholtz, begins experimenting with Maxwell's theory, to test Maxwell's predictions regarding the movement and speed of electromagnetic waves. In the process, Hertz invents the dipole antenna and the broadcast and detection of ultra high frequency radio waves.
1876	The Bow Bells stop ringing the curfew at 9pm, when the curfew, established in 1469 by the Common Council, is finally rescinded.
1876	Alexander Graham Bell patents the telephone.
1876	Samuel Plimsoll's bill in Parliament requires draft lines and safe load lines on the sides of commercial ships. These marks become known as Plimsoll lines, a circle with a horizontal line through it showing the safe water level.
1876	The Great Silver Exhibition is opened by Queen Victoria and Prince Albert on 1 May to enormous crowds. The newspapers give triumphant reviews, raving that "the Empire once again displays itself at the very forefront of technological prowess, intellectual and artistic magnificence and at the pinnacle of humanitarian concerns". In the 25 years since the previous exhibition, science and technology has progressed by leaps and bounds, and many of the exhibits are truly breathtaking.
1876	Lightning strikes the experimental apparatus at Greenwich Park. Professor Oswald Grosvenor, his technicians, and his equipment all disappear, and the portal forms, initially an opaque grey disc. The best minds, scientists, technologists and crackpots try to make sense from what they can observe.

Year	Event
1877	The opaque surface of the Grosvenor disc begins to change, sometimes offering glimpses of what may lay on the other side. Through the spring, more and more can be seen, and general opinion is there is similar land on the other side. As the one year anniversary of the event approaches, observations of the other side become clearer and clearer. It is a world with multiple moons and a similar sun. Disraeli, realizing there is a whole other world on the other side and foreseeing a military manpower shortage, accelerates the incorporation of colonial auxiliaries into the British military structure.
1877	Annie Besant and Charles Bradlaugh, as the Freethought Publishing Company, publish Charles Knowlton's 1832 birth control manual *Fruits of Philosophy*, for which they are prosecuted under the Obscene Publications Act of 1857. Prompted by the urgings of Doctor Anderson, Queen Victoria intervenes, pardoning the authors and subsidizing the book's publication. Almost immediately, the rampant population expansion in London falls away. The book and the royal approval of the idea give women an even greater sense of independence and control over their lives.
1877	The Very pistol, which uses a flare invented by Edward Wilson Very, is invented. Very, a captain in the United States Navy in command of the experimental battery at the Navy Torpedo Station at the time, designed a series of coloured flares to be fired high into the air with the pistol that took its name from the flares and their inventor.
1877	At precisely 15:02 on 6 June, there is a snap and the (east or west?) side of the portal clears. A bird flies through from the Gruv to Earth and is never seen again.

Year	Event
1877	Three soldiers are sent into the portal, on lines, and have to be pulled back out quickly due to disorientation and exposure to bad air.
1877	Heinrich Hertz, recovered from an attack of vertigo, notices odd measurements in his dipole antenna broadcast experiments. Over the next several weeks, he, Wilhelm Wundt, and Max Planck will discover what is eventually realized to be the return of magic to the world, and found the Galvanic Order.
1877	Hyrdofeay orders the House of Lords, in writing and by messenger, to attend a joint session in the House of Commons for an address the next day. When told by Lord Sedgemore that joint sessions could only be held by the order of the Queen, and only in the upper chamber of the Lords, Hyrdofeay gave Lord Sedgemore's household staff three minutes to evacuate his London townhouse, then leveled the building in a single blast of dragonfire. He then gave each staff member a purse of a hundred guineas as apology for the loss of their personal belongings.
1877	Fort Alice is officially founded as the forward camp and center of operations in the Gruv
1877	Hyrdofeay addresses Parliament in a joint session in the House of Commons. He begins by stating that he is not challenging Queen Victoria for her throne, hence the gathering inCommons rather than Lords. He briefly discusses the state of the Thames in highly pejorative terms, and advises Parliament that he expects them to do their duty. After being told off by a few of the more brazen backbenchers and a clark of the chancellor's staff who had not previously been thought to have quite so much spine, Hydrofeay moves into the top floor of Victoria Tower and takes down the flagstaff.
1877	First contact is made with the Saurids

Year	Event
1877	The Russo-Turkish War ends in a stalemate, the superior numbers of the Russians counterbalanced by Turkish technological superiority. The Treaty of Berlin formally recognizes the independence of Serbia, Romania, and Montenegro, although they had been semi-autonomous vassal states of the Ottoman Empire for some time. Bulgaria is reorganized as a vassal state of the Ottoman Empire, with its capital at Sofia, much to the chagrin of the Russians and Austro-Hungary, who had both agitated for Bulgaria to be reconstituted as an independent principality.
1877	Britain attempts to annex the Transvaal by a special warrant, based on the threat posed to the Transvaal by the Zulu Kingdom, massively increasing tensions with the Boers.
1877	A week after the Portal opens, Looking Glass Fever appears in London. Incidents of LGF soon appear in other parts of the world, confounding explanations that depend on proximity to the Portal. The terms Boojum, elf, dwarf, snark, and troll enter the vernacular.
1877	Adolf Horwitz creates the Routh-Horwitz Theorem, using differential equations to analyse system stability, a major contribution to control theory that pushes design of machinery forward considerably.
1877	Siemens creates the Elektromote, or electric trolley.
1877	The Bell Telephone Company is chartered.
1878	After experimentation shows that cast iron with an inner plating of lead will block the harmful radiation of the portal causeway, the Iron Tunnel is built.
1878	A third plebiscite for secession in Tennessee fails. The vote becomes a running joke in political circles, destroying the credibility of secessionists.

Year	Event
1878	Bram Stoker marries Florence Balcombe, disappointing Oscar Wilde, who moves to London, never to return to Ireland.
1878	Alexander Graham Bell demonstrates the telephone to Queen Victoria and Prince Albert.The military and commercial advantages of the instrument are immediately apparent to Prince Albert, and a few days later, Queen Victoria tasks the military with researching the applications.
1878	Oscar Wilde suffers a bout of LGF and becomes an Elf. No one who knows him is the least bit surprised.
1878	Sidney Gilchrist Thomas patents the Basic Bessemer process, which lines the converter with dolomite instead of clay. This process accumulates more slag in the converter, taking more impurities out of the steel, and allowing phosphate recovery for fertilizer as an aftermarket product.
1879	The Garden Palace, built along the plans of the Crystal Palace, opens in Sydney, Australia for the Sydney International Exhibition. It's notable for the use of electric lighting, imported from England, to allow round-the-clock construction work.
1879	Commercial telephone service begins in London. Buckingham Palace installs its first switchboard. Queen Victoria allows a telephone in her office, but refuses to allow the device into her living quarters. Military telephone connections are built in the Gruv, notably from Fort Alice to Camp Burlington and Fort Wellington.
1879	Paul Vieille of France introduces Poudre B, aka white powder or pyrocellulose, the first useful smokeless powder. First used in the Lebel rifle, the Prussians quickly adopt it.


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Year	Event
1879	David Edward Hughes discovers how to pick up radio transmissions using a Bell telephone. He builds a new microphone design, inventing the crystal detector, and uses an induction balance to generate the signal.
1879	James Clerk Maxwell is diagnosed with abdominal cancer. The prognosis is dire, with him not expected to last out the year. Mr. Fairchild pays him a call, and brings him to Sefton House. A few days late, Maxwell goes home to convalesce, having been cured. It's let out that the process is experimental, terribly expensive, and reserved only for those deemed critical to the Empire. At 48, Maxwell becomes more active in the Presbyterian Church, and begins working with both the Galvanics and a number of ecclesiastical mathematicians and occultists, not all Presbyterian, determined to derive the fundamental theorems that Mr. Fairchild hinted at.
1879	Wilhelm Wundt establishes the first psychology research laboratory at the University of Leipzig. He keeps this work carefully separate from his activities with the Galvanic Order.
1879	Battle of Isandlwana. Rebellious Zulus slaughter a thousand British troops in a single day in a massive raid. Zulu Royalist troops arrive late in the battle and massacre the rebels.
1879	A delegation from Earth meets with senior officials of the Samsut. Language barriers have been addressed in prior encounters, but not entirely overcome. The Samsut made a request for the British dead as payment for use ofthe land. An undead servant was displayed. Shocked at the desecration, some of the British troops, without orders, opened fire. The Samsut senior official was hit, whether by stray rounds or directed fire will never be known. No apologies could recover the situation. War ensues.

Year	Event
1879	Prince Dabulamanzi KaMpande takes his ikhanda through the Rabbit Hole to support the British at Fort Alice, at the command of King Nbomani of the Zulu Protectorate. While the first train rolls on this day, the actual migration requires nearly a month. Building the villages of the ikhanda continues on well into July.
1879	Realizing Britain cannot keep everyone out or anything secret, Parliament passes the Grosvenor Transit Act, creating an allotment system where zones are assigned to the major powers for their exploitation. The British Empire maintains its control of the portal and collects tariffs on traffic and goods moving in either direction.
1879	The Prussian colonisation of the Gruv begins, with the establishment of Torgau Freistadt.
1880	Arthur Konig begins research into the origins and nature of LGF. He takes over as research director at Saint Drogo's Hospital in Lambeth.
1880	The Linotype arrives in the UK. Very quickly, people realize that Analytical Engines can be used for compositing, feeding directly to the linotype. Algorithms are developed that produced suggested layouts. The best of the proprietary cardware is developed at the Tribune. This allows a layout artist to composite on preprinted forms, punch a few cards describing placement of items on the page, and have the Engine churn out the plates ready for press.

Year	Event
1880	The second Prussian colonisation expedition arrives in Fort Alice, with Crown Prince Frederick Wilhelm as the appointed governor of the intended colony. The train carrying his son and heir, Prince Wilhelm, is delayed in the Rabbit Hole, and arrives with one third of the human passengers dead or comatose, and the other two thirds Boojums. The transformation heals Prince Wilhelm's arm, damaged at birth, but reaction to the Prince now being a snark is mixed at best. The Prince doesn't seem to care.
1880	In Berlin, Nikola Tesla uses spare equipment from the S-Bahn to replicate the Galvanics' experiments.
1880	Robert Louis Stevenson and Fanny are married.
1880	The Royal Albert Dock opens. His Highness officiates at the opening ceremony.
1880	Edouard Branly demonstrates the radio conductor, which will be renamed the coherer in 1883 by Sir Oliver Lodge. This is the first true radio receiver, but is not sensitive enough to be reliable.
1880	Robert Louis Stevenson and Fanny take ship from New York to Liverpool, meeting Sidney Colvin and his parents on the wharf.
1881	Louis Pasteur develops an effective human vaccine against anthrax.
1881	Wilhelm Wien and Eugen Goldstein invent the cathode ray tube.
1881	Nikola Tesla develops alternators that produce 15,000 cycles per second, and the large air-gapped coil that now bears his name.

1879 GAMEMASTER'S GUIDE

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Volume One of the 1879 Webcomic and Graphic Novel

Welcome to *1879*

The British Empire, suddenly finding itself with an interdimensional portal due to a Weird Science experiment gone awry, has discovered a new world, the Gruv, chock-full of resources and land to be exploited. In the process, though, they've run headlong into the Samsut, descendants of ancient Babylonians who've been living there for over three thousand years. Now the might of the Empire clashes with the weird science of the Samsut. The Saurids, a reptilian race native to the new world, contest with both empires to retain their ancestral lands. Who will control the Gruv?

Meanwhile, first in London and then around the world, magic has returned. In some cases, humans have changed, becoming elves, dwarves, snarks, and trolls. In others, mages, priests and shamans have gained awe-inspiring powers. Weird Scientists build unexplainable devices. Technological leaps forward have given us British microsteam engines, Confederate Giffard airships, and Prussian lightning guns, with new world-changing inventions appearing every day. Dodgers skulk in the shadows, doing what reputable firms need to be able to deny.

The British hold title to the Rabbit Hole and its access to the Gruv, but other nations have brought pressure to bear, and will not be denied their chance at the riches of the new world. Intrigue! Exploration! Giant insects! Battery-powered zombies! War in the New World and the threat of it in the Old! Where will all this end? That's for you to decide!

The 1879 Game Master's Companion expands upon world building of the Game Master's guide, providing new challenges to give your players and new possibilities to take your story. Additional information on vehicles has been provided, including several new ones that range from simple transportation to all new tools of war. Additional Secret Societies are detailed, giving potential new friends and foes for your players to encounter, and possibly new groups they may wish to take part in. The Victorian era is not a kind one when it comes to health, and further details are provided on some of the nasty circumstances that for the time are part of every day life. If you've run out of fresh encounters to throw at your players, the book includes methods of creating new creatures, as well as an abundance of ready made new ones. If you need to bring the challenge up to the next level, new spirits and even dragons are detailed. Finally, the book provides an extensive time line of events leading up to the present time within the game. Get ready to delve even deeper into the world of *1879* with the next set of twists to navigate and obstacles to overcome!

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