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Explosives Act 1890:

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Explosives Act 1890.

ORDER IN COUNCIL No. 1.—DEFINING AND CLASSIFYING EXPLOSIVES.

At the Executive Council Chamber, Melbourne, the twelfth day of October, 1909.

PRESENT:

, His Excellency the Governor of Victoria.

Mr. Graham, Mr. Watt, Mr. Edgar.

Whereas by the 49th section of the Explosives Act 1890 it is enacted that the Governor in Council may from time to time by order define for the purposes of the First Part of the said Act the composition, quality, and character of any explosive, and may classify explosives: Now therefore in pursuance of the above-mentioned provisions of the said Act His Excellency the Governor of Victoria, doth, by and with the advice of the Executive Council thereof, order as follows:—For all previous orders classifying and defining explosives there shall be substituted the following:—

CLASSIFICATION OF EXPLOSIVES.

For the purposes of the said Act explosives shall be divided into seven classes, as follows:—

Class 1	 Gunpowder.
Class 2	 Nitrate-mixture.
Class 3	 Nitro-compound.
Class 4	 Chlorate-mixture.
Class 5	 Fulminate.
Class 6	 Ammunition.
Class 7	Firework

And when an explosive falls within the description of more than one class it shall be deemed to belong exclusively to the latest of the classes within the description of which it falls.

· CLASS I.—GUNPOWDER CLASS.

The term "Gunpowder" means exclusively gunpowder, ordinarily so called.

CLASS 2 .- NITRATE-MIXTURE CLASS.

The term "Nitrate-mixture" means any preparation, other than gunpowder, formed by the mechanical mixture of a nitrate with any form of carbon, or with any carbonaceous substance not possessed of explosive properties, whether sulphur be or be not added to such preparation, and whether such preparation be or be not mechanically mixed with any other non-explosive substance.

The nitrate-mixture class comprises such explosives as—

Bobbinite,

Chilworth special powder, and any preparation coming within the above definition.

CLASS 3 .- NITRO-COMPOUND CLASS.

The term "nitro-compound" means any chemical compound possessed of explosive properties, or capable of combining with metals to form an explosive compound, which is produced by the chemical action of nitric acid (whether mixed or not with sulphuric acid) or of a nitrate mixed with sulphuric acid upon any carbonaceous substance, whether such compound is mechanically mixed with other substances or not.

The nitro-compound class has two divisions.

Division 1 comprises such explosives as-

Amberite No. 1, Blasting gelatine, Cordite, Dynamite, Nitro-glycerine,

and any chemical compound or mechanically mixed preparation which consists either wholly or partly of nitro-glycerine or of some other liquid nitro-compound.

Division 2 comprises such explosives as-

Gun-cotton, ordinarily so called, Bellona, Nitrated gun-cotton, Schultz's powder, Picrates, Picric powder, Roburite, Tonite,

and any nitro-compound as before defined which is not comprised in the first division.

CLASS 4.—CHLORATE-MIXTURE CLASS.

The term "chlorate-mixture" means any explosive containing a chlorate.

The chlorate-mixture class has two divi-

Division 1 comprises such explosives as racka-rock, lithyte (manufacture only), and any chlorate preparation which consists partly of nitro-glycerine, or of some other liquid nitro-compound.

Division 2 comprises any chlorate-mixture, as before defined, which is not comprised in the first division.

CLASS 5 .- FULMINATE CLASS.

The term "fulminate" means any chemical compound or mechanical mixture, whether included in the foregoing classes or not, which, from its great susceptibility to detonation, is suitable for employment in percussion caps or any other appliances for developing detonation, or which, from its extreme sensibility to explosion, and from its great instability (that is to say, readiness to undergo decomposition from very slight exciting causes) is especially dangerous.

This class consists of two divisions:-

Division 1 comprises such compounds as the fulminates of silver and of mercury, and preparations of these substances, such as are used in percussion caps; and any preparation consisting of a mixture of chlorate with phosphorus, or certain descriptions of phosphorus compounds, with or without the addition of carbonaceous matter, and any preparation consisting of a mixture of a chlorate with sulphur, or with a sulphuret, with or without carbonaceous matter.

Division 2 comprises such substances as the chloride and the iodide of nitrogen, fulminating gold and silver, diazobenzol, and the nitrate of diazobenzol.

CLASS 6.—AMMUNITION CLASS.

The term "ammunition" means an explosive of any of the foregoing classes when enclosed in any case or contrivance, or otherwise adapted or prepared so as to form a cartridge or charge for small arms, cannon or any other weapon, or for blasting, or to form any fuze for blasting (other than safety fuze), or for shells, or to form any tube for firing explosives, or to form a percussion cap, a detonator, a fog signal, a shell, a torpedo, a war rocket, or other contrivance other than a firework.

The term "percussion cap" does not include

a detonator.

The term "detonator" means a capsule or case, which is of such strength and construction, and contains an explosive of the fulminate-explosive class in such quantity that the explosion of one capsule or case will communicate the explosion to other like capsules or cases.

The term "safety fuze" means a fuze for blasting, which burns and does not explode, and which does not contain its own means of ignition, and which is of such strength and construction, and contains an explosive in such quantity that the burning of such fuze will not communicate laterally with other like fuzes.

The ammunition class has three divisions.

Division 1 comprises exclusively-

Safety cartridges,

Railway fog signals,

Percussion caps.

Division 2 comprises any ammunition, as before defined, which does not contain its own means of ignition, and is not included in Division 1, such as-

Cartridges for small arms, which are not

safety cartridges,

Cartridges and charges for cannon, shells, mines, blasting, or other like purposes, Shells and torpedoes containing any explosives,

Fuzes for blasting, which are not safety fuzes,

Fuzes for shells,

Tubes for firing explosives,

War rockets,

which do not contain their own means of ignition.

Division 3 comprises any ammunition, as before defined, which contains its own means of ignition, and is not included in Division 1, such

Detonators,

Cartridges for small arms, which are not safety cartridges,

Fuzes for blasting, which are not safety fuzes.

Fuzes for shells,

Tubes for firing explosives,

which do contain their own means of ignition.

By ammunition containing its own means of ignition is meant ammunition having an arrangement, whether attached to it or forming part of it, which is adapted to explode or fire the same by friction or percussion.

CLASS 7.—FIREWORK CLASS.

The term "firework" comprises firework composition and manufactured fireworks.

Division 1.—The term "firework composition" means any chemical compound, or mechanicallymixed preparation, of an explosive or inflammable nature which is used for the purpose of making manufactured fireworks, and is not included in the former classes of explosives, and also any star and any coloured fire composition, subject to the proviso hereinafter set forth.

Division 2.—The term "manufactured firework" means any explosive of the foregoing classes, and any firework composition, when such explosive or composition is enclosed in any case or contrivance, or is otherwise manufactured so as to form a squib, cracker, scrpent, rocket (other than a war rocket), maroon, lance, wheel, Chinese fire, Roman candle, or other article specially adapted for the production of pyrotechnic effects, or pyrotechnic signals, or sound

Provided that a substantially constructed and hermetically closed metal case, containing not more than 1 lb. of coloured fire composition, of such a nature as not to be liable to spontaneous ignition, shall be deemed to be a "manufactured firework.'

DEFINING EXPLOSIVES.

For the purposes of the said Act the composition, quality, and character of explosives are hereby defined as follows:-

CLASS I.—GUNPOWDER.

Gunpowder-Means exclusively gunpowder ordinarily so called.

CLASS 2.—NITRATE MIXTURE.

Nitrate-Mixture - Means any preparation, other than gunpowder ordinarily so-called, formed by the mechanical mixture of a nitrate with any form of carbon or with any carbonaceous substance not possessed of explosive properties, whether sulphur be or be not added to such preparation, and whether such preparation be or be not mechanically mixed with any other non-explosive substance.

Bobbinite—Consisting of a mixture of nitrate of potassium, charcoal, and sulphur, with one or more of the following ingredients:—Sulphate of copper, sulphate of ammonium, paraffin wax, and rice or maize starch.

Chilworth Special Powder—Consisting of a mixture of nitrate of potassium, nitrate of ammonium, and charcoal, with or without the addi-

tion of sulphur.

Electronite—Consisting of nitrate of ammonium, nitrate of potassium, nitrate of barium, and nitrate of sodium, or any of them, mixed with wood-meal, or such wood-meal partly or wholly charred, and with or without the admixture of well-washed starch.

Excelsior—Consisting of a mixture of potassium nitrate and xanthorrhea balsam.

Fortis Explosive—Consisting of a mixture of two or more of the following substances, viz.:—Tan, lamp-black, and sulphur, such mixture being thoroughly impregnated with a mixture of nitrate of potassium and proto-sulphate of iron, and with or without the addition to such impregnated mixture of glycerine. Provided that all such explosives shall be imported and stored only in the form of compressed cartridges, such cartridges being rendered thoroughly waterproof (a) by waterproofing the naked compressed cartridges, and (b) by enclosing such waterproofed compressed cartridges in thoroughly waterproof cartridge-cases.

Safety Blasting Powder—Consisting of a mechanical mixture of nitrate of potassium, sulphur, lamp-black, sawdust, and sulphate of iron.

CLASS 3 .-- NITRO-COMPOUND.

The term "nitro-compound" means any chemical compound possessed of explosive properties, or capable of combining with metals to form an explosive compound, which is produced by the chemical action of nitric acid (whether mixed or not with sulphuric acid) or of a nitrate mixed with sulphuric acid upon any carbonaceous substance, whether such compound is mechanically mixed with other substances or not.

The nitro-compound class has two divisions.

Every explosive in this class and every explosive ingredient thereof, shall be so thoroughly purified, and otherwise of such character as to satisfy a test known as the Heat Test, and specified in a memorandum signed by a Government inspector, and dated 1st January, 1909.

inspector, and dated 1st January, 1909.

Every blasting explosive in this class, for which nitrate of sodium is used as an ingredient, shall be contained in cartridge cases or wrappers made thoroughly waterproof, with melted paraffin or other suitable waterproofing material.

Division 1.

Division 1 comprises the following explosives, and any chemical compound or mechanically mixed preparation which consists either wholly or partly of nitro-glycerine, or of some other liquid nitro-compound.

· Abbeitz—Consisting of neutral nitrate of ammonium, nitro-glycerine, and wood-meal, provided that the proportion of nitro-glycerine does not exceed 1.1 per cent. of the finished explosive.

Provided also that the explosive is contained in thoroughly waterproof cartridge wrappers or cases. Amberite, No. 1—Consisting of nitro-cotton, mixed or combined with nitro-glycerine, paraffin, and shellac.

Arkite — Consisting of nitro-glycerine, thickened by being combined with nitro-cotton, and mixed with one or more of the following ingredients:—Nitrate of potassium, nitrate of barium, nitrate of sodium, wood-meal, and carbonate of calcium, not exceeding 2 per cent. of the finished explosive, and mixed with oxalate of ammonium.

Provided that the explosive is enclosed in inner packages containing not more than 5 lbs., made thoroughly waterproof with melted paraffin.

Ballistite—Consisting of nitro-cotton, combined with nitro-glycerine, with or without the addition of di-nitro-benzol and di-nitro-toluol, camphor, aniline, graphite, paraffin, vaseline, and mineral jelly, or any of them, and with or without carbonate of calcium or carbonate of magnesium, not exceeding 1 per cent. by weight of the finished explosive.

Provided that the explosive may, if desired, be dyed by Congo red.

Flasting Gelatine No. 1—Consisting of nitrocotton, combined with nitro-glycerine, and with or without carbonate of calcium or carbonate of magnesium, not exceeding 2 per cent. by weight of the finished explosive.

Blasting Gelatine No. 1, Dragon Brand—Consisting of blasting gelatine No. 1, as above defined, with or without the addition of castor oil, and with or without tri-nitro-toluol and vaseline.

Blasting Gelatine No. 2—Consisting of blasting gelatine No. 1, as above defined, mixed with nitrate of potassium, and with or without charcoal.

Cambrite—Consisting of not more than 27 per cent. of nitro-glycerine, with or without the addition of not more than half a part of sulphuretted benzol, uniformly mixed with not less than 73 per cent. of a pulverized preparation, consisting of wood-meal, not less than 52½ per cent., nitrates of potassium, barium, and sodium, or any of them, not more than 47½ per cent., and carbonates of sodium and calcium, or either of them, not more than ½ per cent., and mixed with oxalate of ammonium.

Provided that the explosive is enclosed in inner packages, containing not more than 5 lbs., made thoroughly waterproof with melted paraffin.

Camphorated Gelatine—Consisting of blasting gelatine No. 1, as above defined, mixed with camphor.

Carbo-Dynamite—Consisting of not more than 90 per cent. of nitro-glycerine, uniformly mixed with not less than 10 per cent. of charcoal, whether with or without the addition of one or more of the following substances:—Nitrate of potassium, nitrate of barium, carbonate of sodium, and carbonate of ammonium, provided that the proportion of carbonates present shall not exceed 1½ per cent. of the finished explosive.

Carbonite—Consisting of not more than 27 per cent. of nitro-glycerine, with or without the addition of not more than ½ per cent. of sulphuretted benzol, uniformly mixed with not less than 73 per cent. of a pulverized preparation consisting of wood-meal, not less than 52½ per cent., nitrates of potassium, barium, and sodium, or any of them, not more than 47½ per cent.,

and carbonates of sodium and calcium, or either of them, not more than $\frac{1}{2}$ per cent.

Cordite—Consisting of guncotton, as hereinafter defined, not more than 39 per cent., and not less than 35 per cent.; nitro-glycerine, not more than 61 per cent., and not less than 55 per cent.; and mineral jelly, not less than 4 per cent., of the finished explosive; the whole being thoroughly gelatinized and incorporated by means of acetone.

Coraish Powder—Consisting of gelignite, as herein defined, in which part of the nitrate of potassium has been replaced by sulphate of magnesium.

Dynamite No. 1—Consisting of not more than 75 per cent. of nitro-glycerine, uniformly mixed with not less than 25 per cent. of—

- (a) An infusorial earth, known, as "Kieselguhr." The Kieselguhr may be either calcined, so as to remove the whole of the carbonaceous matter present in the raw materials, or charred, in which latter case there would remain a proportion (sometimes as much as 14 or 15 per cent.) of such carbonaceous matter, or
- (b) A non-explosive mixture of not less than 68 per cent. of kieselguhr, with not more than 32 per cent. of sulphate of barium, mica. talc, and ochre, or any one or more of them;

provided that there may be added to the kiesel-guhr, or non-explosive mixture, an amount not exceeding 2 per cent. of the finished explosive, of the following carbonates, or any one or more of them, viz., carbonates of ammonium, calcium, magnesium, or sodium.

Dynamite No. 2—Consisting of not more than 18 per cent. of nitro-glycerine, uniformly mixed with not less than 82 per cent. of a pulverized preparation, composed either of nitrate of potasium, not more than 86½ per cent.; charcoal, not less than 12¼ per cent.; and purified paraffin (or ozokerit), not less than 1½ per cent.; or of nitrate of potassium, not more than 88 per cent.; and charcoal, not less than 12 per cent.

Excellite—Consisting of a mixture of nitrate of ammonium, nitro-glycerine, di-nitro-toluol. nitro-cotton, wood-meal, and castor oil, provided that the nitro-glycerine and di-nitro-toluol together do not amount to more than 11 per cent. of the finished explosive. Provided also that the explosive is packed in thoroughly waterproof cartridge wrappers or cases.

Fracturite—Consisting of nitro-glycerine, thickened by being combined with nitro-cotton, and mixed with nitrate of potassium and wood meal, and carbonates of calcium and magnesium, or either of them, not exceeding 2 per cent of the finished explosive, and mixed with oxalate of ammonium, not exceeding 20 per cent of the finished explosive Provided that the explosive is enclosed in inner packages containing not more than 5 lbs. made thoroughly waterproof with melted paraffin.

Gelatine Dynamite, No. 1—Consisting of nitro-glycerine thickened by being combined with nitro-coton, and mixed with one or more of the following non-explosive ingredients:—Cotton, charcoal, wood meal, earbonate of calcium not exceeding 2 per cent. and carbonate of magnesium

not exceeding 2 per cent., of the finished explosive.

Gelatine Dynamite No. 1, Dragon Brand— Consisting of gelatine dynamite No. 1, as above defined, with or without the addition of easter oil.

Gelatine Dynamite No. 2, or Gelignite—Consisting of gelatine dynamite No. 1, as above defined, mixed with nitrate of potassium, with or without the addition of not more than ½ per cent. of mineral jelly. (No. 1 Definition.)

Gelatine Dynamite No. 2, or Gelignite—Consisting of gelatine dynamite No. 1, as already defined, mixed with nitrate of sodium. (No. 2 Definition.)

Gelatine Dynamite No. 2, or Gelignite, Dragon Brand—Consisting of gelatine dynamite No. 2, or gelignite, as above defined, with or without the addition of castor oil.

Haylite—Consisting of not more than 27 per cent. of nitro-glycerine, combined with not less than ½ per cent of soluble nitro-cotton, and mixed with not less than 72 per cent. of a preparation consisting of wood-meal, not less than 16.5 per cent., potassium and barium nitrates, or either of them, not less than 52.5 per cent., oxalate of ammonium, not more than 17.5 per cent., and mineral jelly, not less than 8 per cent. Provided that the explosive is enclosed in inner packages containing not more than 5 lbs., made thoroughly waterproof with melted paraffin.

Infallible Smokeless Powder—Consisting of nitro-cotton not more than 59½ per cent., and nitro-glycerine not more than 40 per cent., with the adition of urea not exceeding ½ per cent. of the finished explosive; the whole being thoroughly gelatinized and incorporated by means of acetone.

Jones' Dynamite No. 2—Consisting of nitroglycerine, not more than 35 per cent., uniformly mixed with 65 per cent. of a preparation consisting of kieselguhr and sulphate of lime.

nitro-glycerine, Kallenite—Consisting ofthickened by being combined with nitro-cotton, mixed or incorporated with potassium nitrate, or such other nitrate as may for the time being be sanctioned by the Governor in Council, with the addition of one or more of the following nonexplosive ingredients, viz.:—Cotton, charcoal, wood-meal, carbonate of magnesium, carbonate of calcium, or such other ingredients as may for the time being be sanctioned by the Governor in Council, and in such proportions that the whole shall be of such character and consistency as not to be liable to liquefaction or exudation. Provided that the amount of carbonate of magnesium or carbonate of calcium shall not exceed 2 per cent. by weight of the finished explosive.

Kolax—Consisting of a mixture of nitro-glycerine, nitrates of potassium and barium, woodmeal and starch. Provided that the nitro-glycerine does not exceed 26 per cent., and the woodmeal and starch together (estimated after drying at 100° C.) do not amount to less than 37 per cent. of the finished explosive.

Kynite—Consisting of not more than 27 per cent. of nitro-glycerine with or without the addition of not more than ½ per cent. of sulphuretted benzol, uniformly mixed with not less than 73 per cent. by weight of a pulverized preparation consisting of wood-meal, not less than 52½ per cent., nitrates of potassium, barium, and sodium, or any of them, not more than 47½

per cent., and carbonates of sodium and calcium, or either of them, not more than ½ per cent. by weight of the finished explosive.

Lanite—Consisting of nitro-glycerine, thickened by being combined with nitro-cotton, with the addition of aniline not exceeding one-half of 1 per cent. of the finished explosive, and carbonates of calcium and magnesium or either of them, not more than 1 per cent. by weight of the

finished explosive.

Lignin Dynamite.—Consisting of nitroglycerine uniformly mixed with and absorbed by wood-meal or flour, or both, and mixed with nitrate of sodium. Provided that the nitroglycerine does not exceed 40 per cent. of the finished explosive.

Monobel Powder—Consisting of neutral nitrate of ammonium, nitro-glycerine, and woodmeal, provided that the proportion of nitro-glycerine does not exceed 11 per cent. of the finished explosive. Provided that the explosive is contained in thoroughly waterproof cartridge wrappers or cases.

Rippite—Consisting of gelignite as herein defined, with the addition of oxalate of ammonium and castor oil. Provided that the explosive is enclosed in inner packages containing not more than 5 lbs., made thoroughly waterproof with

melted paraffin.

Saxonite—Consisting of nitro-glycerine, thickened by being combined with nitro-cotton, and mixed with one or more of the following ingredients:—Nitrate of potassium, nitrate of barium, nitrate of sodium, wood-meal, carbonate of calcium not exceeding 2 per cent., and carbonate of magnesium not exceeding 2 per cent. of the finished explosive; to the above ingredients ammonium oxalate is added. Provided that the explosive is enclosed in inner packages containing not more than 5 lbs., and made thoroughly waterproof with melted paraffin.

Stonite—Consisting of not more than 68 per cent. of nitro-glycerine, uniformly mixed with 32 per cent. of a preparation consisting of nitrate of barium, nitrate of potassium, or either of them, not more than 25 per cent., kieselguhr not less than 62½ per cent., wood-meal not less than 12½ per cent., and carbonate of magnesium, with or without the addition of sulphuretted oil and soot (free from mineral acid), or either of them.

Provided that every explosive in this division shall be of such character and consistency as not to be liable to liquefaction or exudation.

Provided also that an explosive which is required by definition to be issued in waterproof inner packages may be exempted from such requirement by special authority, when and so long as the conditions of such authority are observed.

Division 2.

Division 2 comprises the following explosives and any nitro-compound (as before defined) which is not comprised in the first division.

Amberite No. 2—Consisting of nitro-cotton, whether or not mixed with nitrates of potassium, barium, and sodium, or any of them, and with or without the addition of steatite, resin, paraffin, vaseline, graphite, or paraffin coke, and with or without the addition of wood-meal, whether or not such wood-meal is wholly or partly carbonized, and with or without the addition of carbonate of calcium, not exceeding 1 per cent. of the finished explosive, and camphor not exceeding 2 per cent. of the finished explosive.

Bellona—Consisting of a mixture of nitrate of ammonium and meta-di-nitro-benzol.

Cannonite No. 1—Consisting of a mixture of nitro-cotton, and nitrates of potassium, sodium, and barium, or any of them, and resin, with or without the addition of graphite.

Cannonite No. 2—Consisting of a mixture of nitro-cotton and resin, and with or without the

addition of graphite.

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Collodion Cotton—Consisting of nitro-cotton (a) of which not less than 85 per cent. is soluble in ether-alcohol, and (b) which contains not more than 12.3 per cent. of nitrogen. Provided that in cases where it is not intended to be used by itself as an explosive it shall not be regarded as an "explosive" within the meaning of the Explosives Act 1890, when it is—

In solution in ether-alcohol;

(2) Wet with water, and contained in airtight eases; or

(3) Saturated with methylated spirit, and contained in air-tight cases.

Cooppal's Powder—Consisting of nitro-cellulose gelatinized by a suitable solvent, with or without admixture of nitrates of potassium, sodium, or barium, or any of them, hydro-carbons, or resin, and with or without a coating of graphite.

Di-flamyr—Consisting of nitro-cellulose, mixed with nitrates of potassium, sodium, and barium,

or any of them.

E.C. Sporting Powder—Consisting of nitrocellulose, mixed with nitrates of potassium, sodium, and barium, or any of them, with the addition of colouring matter consisting of aurine or ultramarine, and with or without the addition of any one or more of the following substances:—Camphor, pure bees wax, paraffin, shellac, gums or resins, dissolved in benzoline or other volatile solvent, such substances to be free from free mineral acid.

E.C. Powder Company's Rifle Powder, J.B. Patent—Consisting of nitro-cellulose, mixed with nitrates of potassium, sodium, and barium, or any of them, with the addition of lampblack free from mineral acid, or charcoal, and with or without the addition of camphor dissolved in benzoline or other volatile solvent.

Empire Powder—Consisting of nitro-cellulose, incorporated by means of a suitable solvent, or otherwise, with barium and potassium nitrates, graphite and maize starch, or any of them, and mineral jelly; the whole being dyed with negrosine, or congo red, provided that the maize starch does not exceed 2 per cent. of the finished explosive, and with or without not more than 3 per cent. of camphor.

Guncotton—Consisting of nitro-cotton (a) of which not more than 15 per cent. is soluble in ether-alcohol, or (b) which contains more than 12.3 per cent. of nitrogen, and with or without

carbonate of calcium.

Wet Guncotton, containing not less than 20 per cent. of moisture.

Henrite—Consisting of guncotton, gelatinized by a suitable process, with or without any or all of the following substances, di-nitro-benzol, dinitro-toluol, nitrate of potassium, nitrate of barium, and paraffin, the whole being coloured with induline.

Imperial Schultze Gunpowder—Consisting of Schultze gunpowder as hereinafter defined, with or without the addition of gum tragacanth, provided that the amount of gum tragacanth shall not exceed 2 per cent. of the finished explosive, and with or without the addition of cosine soluble in water, and aurin, or either of them, provided that the amount of cosine and aurin shall not exceed 0.2 per cent. of the finished explosive.

I.X.L. Blasting Powder—Consisting of a mixture of potassium and sodium nitrates, sulphur, pieric acid, charcoal, and coal dust, provided that the amount of pieric acid shall not exceed 2 per cent. of the finished explosive.

King's Semi-Smokeless Powder—Consisting of nitro-cellulose mixed with nitrate of potassium, charcoal, and sulphur (free from acid), provided that the amount of sulphur does not exceed 8 per cent. of the finished explosive.

Kynoch's Smokeless Powder—Consisting of nitro-cotton whether or not mixed with nitrates of potassium, barium, and sodium, or any of them and with or without the addition of paraffin, pure water, white resin, graphite, or di-nitro-toluol, and with or without the addition of burnt sienna not exceeding 1 per cent. of the finished explosive.

Life Safe—Consisting of potassium nitrate, sulphur, pieric acid, potassium bicarbonate, and wood-meal, provided that (1) the amount of pieric acid shall not exceed 2 per cent. of the finished explosive; (2) that the amount of potasium bicarbonate added shall be sufficient to impart an alkaline reaction to the finished explosive.

Mullerite—Consisting of nitro-cotton, gelatinized by a suitable process, with or without the addition of camphor, and the nitrates of potassium, barium, and sodium, or any of them, and coloured with the oxalate variety of ethyl green.

Nitrated Guncotton—Consisting of guncotton, mixed with nitrates of potassium, sodium, and barium, or any of them.

Nitro-cotton—Includes guncotton and collodion cotton as herein defined.

Nitrokol—Consisting of nitro-cellulose gelatinized by a suitable solvent, with or without a coating of graphite.

Nitro-lignin—Consisting of nitro-wood-fibre (a) of which not more than 15 per cent. is soluble in ether-alcohol, or (b) which contains more than 12.3 per cent. of nitrogen, and with or without carbonate of calcium.

Normal Sporting Powder—Consisting of nitrocotton, mixed with nitrate of potassium, or nitrate of barium, or both of them, and paraffin or vaseline, the whole gelatinized by a suitable process, grained and polished with or without graphite.

Picric Acid—Consisting of tri-nitro-phenol, containing not more than 0.5 per cent. of mineral matter or ash and free from lead.

Potentite—Consisting of guncotton, mixed with nitrates of potassium, sodium and barium. or any of them.

Rendite—Consisting of potassium nitrate, sulphur, picric acid, potassium bicarbonate, and wood-meal, with or without the addition of graphite (free from grit), provided that (1) The amount of picric acid or graphite shall not exceed 2 per cent. of the finished explosive; (2) The amount of potassium bicarbonate added shall be sufficient to impart an alkaline reaction to the finished explosive.

Rifleite—Consisting of nitro-lignin, or nitrocotton, mixed with any one or more of the following substances:—Nitrate of potassium,

nitrate of barium, di-nitro-toluol, di-nitro-benzol, graphite, hydro-carbons, resins and waxes, and provided also that the said hydro-carbons, resins, and waxes shall not exceed in all 5 per cent. of the finished explosive, and shall be in the opinion of a Government Inspector of a suitable character.

Rifle Guncotton—Consisting of guncotton whether or not mixed with nitrates of potassium, sodium, and barium, or any of them, mixed with any one or more of the following substances:—Pure beeswax, paraffin, shellac, gum, or resin, dissolved in a solvent composed of ether, alcohol, and benzoline.

Roburite No. 1—Consisting of a mixture of (a) nitrate of ammonium, with or without an admixture of nitrate of sodium and sulphate of ammonium, or either of them, provided that the amount of nitrate of sodium shall in no case exceed 50 per cent. of the total amount of nitrates present; and (b) nitro and chloro-nitro-compounds of benzol, toluol and naphthalene, provided that the chlorine does not exceed 1 per cent. by weight of the finished explosive.

Roburite No. 2—Consisting of Roburite No. 1, as above defined, with the addition of chloride of ammonium and sulphate of magnesium, or either of them.

Roburite No. 3—Consisting of nitrate of ammonium, mixed with di-nitro-benzol, and chloro-naphthalene, provided that the latter does not contain more than 50 per cent. of chlorine, and that the chlorine does not exceed 1 per cent. of the finished explosive.

Ruby Powder—Consisting of nitro-cotton, whether or not mixed with nitrates of barium and potassium, or either of them, and di-nitro-toluol, and with or without any of the following ingredients:—Paraffin, paraffin coke, charcoal, vaseline, graphite, or starch.

Schultze Gunpowder—Consisting of nitro-lignin or nitro-cellulose, and mixed with nitrates of potassium, sodium, and barium, or any of them, and with or without starch or collodion, such collodion to consist of nitro-lignin dissolved in a safe and suitable solvent, or pure solid paraffin or vaseline, or camphor.

Schultze Blasting Powder—Consisting of Schultze gunpowder, as above defined, mixed with charcoal or sugar.

Smokeless Diamond.—Consisting of nitro-cotton, mixed with nitrate of barium, and with or without the addition of the following ingredients:—Lampblack, paraffin, vaseline (such lampblack, paraffin, and vaseline to be free from mineral acid), resin, stearine, di-nitro-benzol, trinitro-toluol, and ferri-cyanide of potassium, provided that the proportion of any one of these ingredients does not exceed 2 per cent. of the finished explosive. Provided also that the explosive may be coloured with induline.

Smokeless Powder—Consisting of nitro-lignin, or nitro-cotton, and mixed with any one or more of the following substances:—Starch, barium nitrate, potassium nitrate, di-nitro-toluol, hydro-carbons, resins, and waxes, with or without the addition of colouring matters consisting of either Martin's yellow or spirit blue; and provided that the said hydro-carbons, resins and waxes shall not exceed in all 5 per cent. of the finished explosive, and shall be of a character which in the opinion of a Government Inspector is suitable:

Smokeless Quipowder-Consisting of nitra-lignin mixed or impregnated with a nitrate or nitrates (other than nitrate of lead or nitrate of animonium) and with or without starch or collodien, or turmuric, or similar vegetable colouring matter, or coloured with Martin's yellow (calcium salt of di-nitro-naphthol) or spirit blue (hydro-chloride of triphenyl-rosanihine). Provided that such collection shall consist of intro-lignin dissolved in a safe and suitable solvent, and with or without such other substance as may from time to time be approved of by the Governor in Council.

Tom Thumb Powder-Consisting of trimittocellulose mixed or impregnated with a nitrate, or nitrates (other than nitrate of lead, or nitrate of aumonium), and with the addition of the following ingredients, viz.—Vaseline, parafin wax (such ingredients to be free from mineral acid), stearine, potassium ferri-cyanide, and colouring matter consisting of Nile scarlet; provided that the proportion of any one of these ingredients does not exceed 2 per cent. by weight of the

finished explosive.

Tonite or Cotton Powder No. 1—Consisting of guncotton, mixed with nitrates of potassium, sodium, and barium, or any of them.

Tonite or Cotton Powder No. 2-Consisting of nitrate of barium, mixed with guncotton or collodion cotton and tri-nitro-toluol; provided that the proportions of these two latter ingredients do not exceed 29 per cent. and 14 per cent. respectively of the finished explosive; the whole to be contained in an efficient waterproof wrapper.

Troisdorf Smokeless Powder—Consisting of

nitro-cellulose, gelatinized by a suitable process, and with or without the addition of nitrates of potassium, sodium and barium, or any of them,

and whether or not coated with graphite.

Walsrode Powder—Consisting of nitro-cellulose mixed with carbonate of calcium, and gelatinized by a suitable process.

CLASS 4.—CHLORATE MIXTURE.

The term "chlorate mixture ? means any ex-

plosive containing a chlorate. The chlorate-mixture class has two divisions:-

Every explosive in this class, and every explosive ingredient thereof shall be so thoroughly purified and otherwise of such a character as to satisfy a test known as the Heat Test, and specified in a memorandum signed by a Government Inspector and dated the 1st January, 1909.

Division I comprises any chlorate preparation which consists partly of nitro-glycerine or of some other liquid nitro-compound.

Lithyte—Consisting of potassium chlorate and nitro-benzol; provided that such nitro-benzol shall be free from mineral acids. (Manufacture only)

Rack-a-Rock-Consisting of potassium chlorate and nitro-benzol or mono-nitro-toluol; provided that such nitro-benzol and mono-nitro-toluol shall be free from mineral acids. (Manufacture (Manufacture

Provided that every explosive in this division shall be of such character and consistency as not to be liable to liquefaction or exudation.

Division 2 comprises any chlorate mixture, as before defined, which is not comprised in the first division.

Cheddite—Consisting of a mixture of finely-powdered potassium chlorate with nitro-naphtha-lene and di-nitro-toluol, with thoroughly purified, and easter oil, and with or without the addition of well-washed starch, provided that the proportion of castor till amounts to not less than 4.5 per cent, and the combined proportion of nitro-naphthalene and di-nitro-toluol to not less than 15 per cent. by weight of the finished explosive. Provided always that the potassium chlorate is sufficiently finely powdered and effectively incorporated with the other ingredients so as to prevent any separation of the chlorate from the general mass by crystallization or otherwise.

.Class 5.—Fulminate.

The term "fullminate" means any chemical compound or mechanical mixture, whether included in the foregoing classes or not, which from its great susceptibility to detonation, is suitable for employment in percussion caps or any other appliances for developing detonation, or which, from its extreme sensibility to explosion, and from its great instability (that is to say, readiness to undergo decomposition from very slight exciting causes), is especially dangerous.

This class consists of two divisions. Division 1 comprises such compounds as the fulminates of silver and of mercury, and preparations of these substances, such as are used in percussion caps; and any preparation consisting of a mixture of a chlorate with phosphorus, or certain descriptions of phosphorus compounds, with or without the addition of carbonaceous matter, and any preparation consisting of a mixture of a chlorate with sulphur, or with a sulphuret, with or without carbonaccous matter.

Fulminate of Mercury,

Division 2 comprises such substances as the chloride and the iodide of nitrogen, fulminating gold and silver, diazobenzol, and the nitrate of diazobenzol. Nil.

CLASS 6-AMMUNITION.

The term "ammunition" means an explosive of any of the foregoing classes when enclosed in any case or contrivance, or otherwise adapted or prepared so as to form a cartridge or charge for small arms, cannon, or any other weapon, or for blasting, or to form any fuze for blasting (other than safety fuze) or for shells, or to form any tube for firing explosives, or to form a percussion cap, a detonator, a fog signal, a shell, a torpedo, a war rocket, or other contrivance other than a firework.

The term ' ' percussion cap '' does not include detonator.*

The term "detonator" means a capsule or case which is of such strength and construction. and contains an explosive of the fulminate-explosive class in such quantity that the explosion of one capsule or ease will communicate the explosion to other like capsules or cases.

The term "safety fuze" means a fuze for blasting which burns and does not explode, and which does not contain its own means of ignition,

In consequence of the results of experiments carried out it has been decided that a percussion cap can only be properly classed as such if its of miscarry or less tan 0.6 grain of a composition of the 1st Division of the 1st D

and which is of such strength and construction and contains an explosive in such quantity that the burning of such fuze will not communicate laterally with other like fuzes.
The ammunition class has three divisions:

Division 1.

Percussion Caps—Consisting of a capsule or case of metal containing of explosive of the 5th (Fulminate) Class, not more than 0.5 of a grain, the said explosive being covered and protected by a wating of tin-foil or other material approved by a Government Inspector, and the said capsule or case not containing an shvil; provided that where the proportion of fulminate of mercury in the composition does not exceed 25 per cent., the above limit may be increased to 0.6 of a grain. Provided also that the whole is of such strength and construction that the ignition of one such cap will not ignite other like caps.

Bailway Fog Signals Of such strength and construction and containing an explosive in such quantity that the explosion of one such signal will not communicate the explosion to other like

Safety Cartridges Consisting of cartridges for small-arms, of which the case can be extracted from the small-arm after firing, and which are so closed as to prevent any explosion in one cartridge being communicated to other cartridges.

Safety Firing Tubes, No. 1—Consisting of a tube of metal or other suitable material, containing a percussion cap and suitable mechanical ap-

pliances for firing the same.

Tube Safety Fuze-Consisting of a pipe or tube of pewter, coated externally with tarred yarns, tapes, or other suitable covering, and containing gunpowder in the proportion of not more than one and a half (1½) ounces to every twenty-four (24) feet of fuze.

Division 2.

Division 2 comprises any ammunition, as before defined, which does not contain its own means of ignition, and is not included in Divi-

Abel's Electric Fubes-Consisting of a case of wood or other suitable material, containing two insulated wires the terminals of which are (a) embedded in a charge not exceeding 2 grains of the priming composition, consisting of sulphide of copper, phosphide of copper, and potassium chlorate, intimately mixed together; or (b) connected by a bridge of fine wire, composed of a platinum alloy, steel, or other suitable material, the said bridge being embedded in a charge not exceeding 10 grains of a priming composition, consisting of gunpowder and thoroughly purified gun-cotton, the case being fitted to a small cylindrical tube of quill, metal. or paper, or other suitable material, charged with gunpowder, and having a hollow up the centre of the same.

Bickford's Patent Volley Firers-Consisting of a small cylinder of tin-plate, zinc, wood, cardboard, or other suitable material, into one end of which is placed a socket or block of wood or other suitable material, with a hole through the centre, and with a disc, wad, or cap made of, containing, or saturated with a priming paste of mealed powder at the base of the same, the said cylinder and socket or block being fitted with safety fuze or instantaneous fuze, or not so fitted.

Cartridges for Small Arms (which are not Sofety Cartridges)

Cartridges for Cannon; Shells; Wines Blasting;

Cartridges for Cannon; Spens; wines resonue; or other like purposes.

Electric Fuzes—Consisting of a case of wood or other suitable material, and so fitted with wires as to be suitable for firing electrically; and echtaining one of the following compositions, if such quantity as not to exceed the amount specified for each composition respectively; with or without an additional charge of guippowder, provided that the total amount of explosive in any one fuze shall not exceed 20 grains:—

(1) Gunpowder, with or without thoroughly

(1) Gunpowder, with or without thoroughly

purified gun-cotton, 15 grains.
(2) Potassium chlorate and sulphide and sub-sulphide of antimony and of copper, or any of them, with or without one or more of the following ingredients:-Copper, silver, platinum," carbon, phosphide or sub-phosphide of copper, or plumbago, 20 grains, the whole being intimately mixed together.

(3) Purified nitro-cotton, 20 grains.
(4) Fulminate of mercury, one-fifth of a

- (5) Potassium chlorate and fulminate of mercury, with or without native sul-phide of antimony, 5 grains; pro-vided that the fulminate of mercury does not exceed one-tenth of the whole.
- (6) Thoroughly purified gun-cotton and potassium chlorate, with or without either of the following ingredients:-Native sulphide of antimony, pow-

dered galls, 20 grains.

(7) Potassium chlorate, ferroeyanide of lead, and sulphocyanide of lead, 20

grains.

- (8) Potassium chlorate, sulphide of antimony, metallic copper, silver (precipitated), plumbago (electrotype), wood charcoal with or without not more than 1.5 per cent, of bisulphide of tin.
- Potassium chlorate sulphide of anti-mony precipitated silver, amorphous phosphorus, and graphite, 10 grains, provided that the sulphide of antimony is free from acid and sulphur.
- (10) Potassium chlorate, amorphous phosphorus, and phosphide of copper, 5 grains; provided that the proportion of phosphide of copper he not less than 75 per cent.

Electric Fuzes include:-Abel's Electric Fuzes.

Brain's Electric Fuzes. Electric Fuzes (Smith's Patent). Electric Gunpowder Fuzes.

High Tension Electric Fuzes

High Tension Electric Fuzes (Brain's Patent).

Low Tension Electric Fuzes.

Spon's Electric Fuzes.

In any licence the expression "Electric Fuzes" also includes all safety electric fuzes of class VI.,

Elswick Electric Tubes-Consisting of a case of metal, wood, paper, or other suitable material., 4603

containing (a) two or more insulated wires, the terminals of which are connected by a fine wire of platinum or other suitable material, embedded ih a charge not exceeding 10 grains of gun-cotton thoroughly purified; and (b) a charge not exceeding I ounce of gunpowder, the said case being completely, closed by means of a cork, disc, or

6ther suitable material.

Fraser's Fuze Igniter—Oblisisting of a tube of paper, or other suitable material, filled with one or more of the following ingredients in such proportions that the mixture burns, but does not xplode:-Potassium nitrate, mealed gunpowder, shellab; lamp-black, saydust, and with such other ingredients, and in such proportions as may from time to time be approved of by the Governor in Council. Provided that the igniters are filled with the mixture in the proportion of not more than 1 lb. by weight of the mixture to every 100 igniters, and that the ends of each igniter are closed with a plug of wax, or other suitable material.

Fuzes for Shells-Consisting of cases of wood, inetal, or other suitable material, charged or primed with fuze or other suitable composition, and not containing their own means of ignition, and of such strength and construction that the explosion of one fuzz will not produce an ex-

plosion, en masse, of other like fuzes.

German Spills—Consisting of cylindrical cases of paper, containing a charge of gunpowder not exceeding 1 lb. per gross, and primed at one end with touch-paper, and at the other with mealed gunpowder, or primed at both ends with mealed

gunpowder. (No. 1 Definition.)
German Spills—Consisting of cylindrical cases of paper, one-half charged with fuze composition, consisting of potassium nitrate, sulphur, and charcoal, the other half containing a charge of gunpowder, the whole composition and gunpowder not to exceed 2 lbs. to the gross, primed at one end with touch-paper, and at the other with mealed gunpowder, or primed at both ends with mealed gunpowder. (No. 2 Definition.)

Gunpowder Fuzes—Consisting of cases of

metal, wood, or other suitable material, containing a charge of gunpowder not exceeding 2 drams

in each fuze.

Gun-cotton Fuzes-Consisting of cases of metal, wood, or other suitable material, containing a charge of thoroughly purified gun-cotton,

not exceeding 2 drams in each fuze.

Instantaneous Fuzes—Consisting of a preparation of gunpowder, yarn, and a protective coating, which is not a safety fuze, and does not contain its own means of ignition.

Miner's Squibs-Consisting of a tube of paper or other suitable material, partly filled with gunpowder in the proportion of not more than 1 lb. of gunpowder to every 500 squibs, and having one end closed with a plug of wax, or other suitable material, and the other end closed by being twisted, and such twisted end being coated with

sulphur, or not so coated.

Pain's Instantaneous Pyrotechnic Fuzes-Consisting of a closed case of paper, wood, or other suitable material, having affixed therein, by means of a plug of sulphur, two insulated copper wires, the terminals of which are con-nected by a bridge of fine wire, consisting of platinum, platinum alloy, steel, or other suitable material, such bridge being embedded in a charge of gunpowder, not exceeding 20 grains.

Tubes for Firing Explosives—Consisting of cases of quill, metal, or paper, charged with mealed powder, or other suitable explosive, and not containing their own means of ignition.

War Rockets-Consisting of cases of iron, or officer suitable material, containing rocket composition, consisting of an intimate mixture of potassium nitrate, sulphur, and charcoal, and not containing their own means of ignition.

Division 3.

Division 3 comprises any ammunition, as before defined, which contains its own means of ignition, and is not included in Division 1.

Cartridges for Small Arms—Being cartridges adapted for, and exclusively intended for use in, small arms and containing their own means of ignition, and of such strength and construction that the explosion of one such cartridge will communicate explosion to other like cartridges, and containing gunpowder, or any authorized smallarm nitro-compound, and so closed as to prevent the exposure or escape of any of the said explosive.

Colliery Safety Lighters—Consisting of a tube of metal, millboard, or other suitable material. closed at one end, and containing sulphuric acid enclosed in a glass globule or tube embedded in or contiguous to a mixture of potassium chlorate and sugar (whether or not contained in an inner metallic tube, containing or not containing gunprovider), and with or without the addition of a piece of safety fuze. Provided that the amount of the mixture aforesaid contained in any one of the said colliery safety lighters shall not exceed 5 grains. Provided also that the said colliery safety lighters shall be of such strength and construction that the ignition of one such colliery safety lighter will not communicate laterally with others.

Detonators-Consisting of a capsule or case of such strength and construction, and containing one or other of the following explosives of the fulminate class in such quantity, that the explosion of one such capsule or case will communicate the explosion to other like capsules or

(1) Fulminate of mercury.

- Fulminate of mercury and potassium (2)chlorate.
- potassium Fulminate of mercury, chlorate, and gun-cotton.
- (4) Pieric acid primed with fulminate of mercury, with or without potassium chlorate.
- Potassium chlorate, potassium pierate, resin, and nitro-cellulose; provided that the proportion of potassium picrate and nitro-cellulose does not exceed 35 per cent. and 15 per cent. respectively, and that the proportion of resin is not less than 3 per cent. by weight of the finished explosive, and that all the ingredients have been thoroughly purified.
- (6) Potassium chlorate, potassium pierate, resin, and nitro-cellulose, provided that the potassium pierate and nitro-cellulose do not exceed 40 per cent. and 20 per cent. respectively, and the resin does not amount to less than 3 per cent. of the finished explosive.
- Tri-nitro-toluol primed with a charge contained in a small fixed copper cap;

and consisting of a mixture of fulminate of mercury and potassium chlorate.

(8) Tetra-nitro-nicthyl-aniline, primed with a mixture of fulminate of mercury and potassium chlorate. All the ingredients to be thoroughly purified.

Electric Detonators—Consisting of electric fuzes, as above defined, and having attached thereto, or forming part of, a detonator, as defined above. Provided that the whole shall be so constructed that no part of the wires can come in contact with the fulminate in the detonator.

Electric Detonators include:-

Abel's Electric Detonator Fuzes.
Bornhardt's Electric Detonator Fuzes.
Brain's Electric Detonator Fuzes.
Brain's Improved Electric Detonator Fuzes.
Electric Detonator Fuzes.
Electric Detonator Fuzes (Smith's Patent).
High Tension Electric Detonator Fuzes.
Low Tension Electric Detonator Fuzes.
Spon's Electric Detonator Fuzes.

Elswick Mechanical Tubes—Consisting of a case of metal, wood, paper, or other suitable material, containing its own means of ignition, and a charge not exceeding 1 oz. of gunpowder.

Fuzes for Shells—Consisting of eases of wood, metal, or other suitable material, charged or primed with fuze or other suitable composition, containing their own means of ignition, and of such strength and construction that the explosion of one fuze will not produce an explosion, en masse, of other like fuzes.

Safety Firing Tubes, No. 2—Consisting of Safety Firing Tubes, No. 1 (see definition in Division 1), with the addition of a priming charge of mealed powder, not exceeding 40 grains, the whole to be of such construction that the explosion or firing of one such tube will not explode or ignite similar tubes in close contact with it.

Tubes for Firing Explosives—(Other than Detonators) consisting of cases of quill, metal, or paper, charged with mealed powder, or other suitable explosive, and containing their own means of ignition.

CLASS 7 .- FIREWORK.

The term "firework" comprises firework composition and manufactured fireworks.

Division 1.—Firework Composition.

Division 1.—The term "firework composition" means any chemical compound or mechanically-mixed preparation of an explosive or inflammable nature, which is used for the purpose of making manufactured fireworks, and is not included in the former classes of explosives, and also any star and any coloured fire composition, subject to the proviso hereinafter set forth.

Nil.

Division 2.—Manufactured Fireworks.

Manufactured Fireworks—Consisting of any explosive of the foregoing classes, and any firework composition, when such explosive or composition is enclosed in any case or contrivance, or is otherwise manufactured so as to form a squib, cracker, serpent, rocket (other than a war rocket), marcon, lance, wheel, Chinese fire, Roman candle, or other article specially adapted for the production of pyrotechnic effects or pyrotechnic

signals or sound signals. Provided that a substantially constructed and hermetically closed metal case containing not more than 1 lb. of coloured fire composition of such a nature as not to be liable to spontaneous ignition shall be deemed to be a manufactured firework.

Aluminium Magnesium Torches—Consisting of a mixture of barium and potassium hitrates, or either of them, aluminium or magnesium, iron fileings, and gum, formed into rods, and affixed to a stick or wire, the total weight of each such rod not exceeding 10 grammes.

Amorces (whether in the form of toy caps or igniting tapes)—Consisting of dots of one or other of the under-mentioned compositions, Enclosed between two pieces of paper, or separated by a sheet of paper or cardboard, in a proporton not exceeding 70 grains of such composition to every 1,000 dots.

Composition (a): A mixture of potassium chlorate and amorphous phosphorus, with or without the addition of (1) potassium nitrate, sulphide of antimony, sugar or milk, and powdered sulphur (free from acid); or (2) chalk, rye flour, and resin (sandarak); or (3) manganese and glue; provided that the amount of amorphous phosphorus present in the mixture shall in no case exceed the proportion of 10 grains in 1,000 dots.

Composition (b): A mixture of potassium chlorate and ferrocyanide of lead, or sulphocyanate of lead.

Crack Shots—Consisting of an amorce composed of a patch of thoroughly purified fulminate of silver enclosed between two pieces of paper in a proportion not exceeding 15 grains of such fulminate of silver to every 1,000 amorces, such amorce to be gummed to or form part of a sheet of paper not less than 4 inches square, and having a strip impregnated with potassium nitrate. Provided that the explosive shall be so packed that the explosion of one crack shot shall not be capable of exploding others.

Distress Signal Rockets—Consisting of sound signal rockets as hereinafter described, with the addition in the head of the rocket of one or more stars composed of two or more of the following ingredients:—Potassium nitrate, sulphur (carefully washed), realgar, antimony, gunpowder.

Incendiary Shells—Consisting of shells adapted for use in cannon, containing incendiary stars, as hereinafter defined, with or without a bursting charge of gunpowder.

Incendiary Stars—Consisting of cases of paper or other suitable material, containing a mixture of gunpowder, india-rubber cement, coal tar, potassium nitrate, naphthalene, and paraffin wax, and having attached thereto a strand of quick-match.

Lightning Paper—Consisting of thoroughly purified nitro-cotton, with or without the admixture of a safe and suitable colouring material.

Magic Candle Pin Crackers—Consisting of thoroughly purified fulminate of silver, gummed, or otherwise attached to a pin, and protected by a coating of paper, in a proportion not exceeding 15 grains of such fulminate of silver to every 1,000 magic candle pin crackers.*

[•] It is a co-clition of the licence that these crackers shall be packed in numbers not exceeding twelve, in sto it paper, and each such package placed singly in a box of wood or cardboard, properly secured against escape of explosive; such boxes to be further pac, ed as required for fireworks.

Socket Sound Signals—Consisting of a case of tinned iron, containing one or more charges of tonite or cotton powder as herein described, goth charges not exceeding together 8 ounces, and having inside the base of the said case, or at-lathed to the exterior thereof, in a case or bag of india rubber, canvas, or other suitable material, a charge of gunpowder not exceeding 2½ ounces; the charges of tonite and gunpowder being con-pected by means of a suitable time fuze, in commultication or in confection with a detonator, as above defined, such detonator to contain above the fulminate charge a substantial layer of strongly compressed mealed gunpowder, and being itself embedded in tonite.

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Socket Distress Signals—Consisting of a socket sound signal, as hereinbefore described, and in the upper part thereof a star or stars composed of two or more of the following ingredients:-Potassium nitrate, sulphur (carefully washed), realgar, antimony, gunpowder, or one or more stars of the following composition:—

Red Stars-First Composition-Consisting of nitrate of strontium, potassium nitrate, charcoal, and shellac, incorporated with shellac solution, and with or without the addition of thoroughly purified gun-cotton, not exceeding 14 per cent. by weight of the finished

Second Composition-Consisting of potassium chlorate, carbonate of strontium, shellac, and fine charcoal.

Third Composition—Consisting of potassium chlorate, carbonate of strontium,

and shellac. Green Stars-First Composition-Consisting of nitrate of barium, potassium nitrate, charcoal, and shellac, incorporated with shellac solution, and with or without the addition of thoroughly purified gun-cotton, not exceeding 14 per cent. by weight of the finished stars.

Second Composition—Consisting of potas-sium chlorate, nitrate of barium, chlorate of barium, powdered shellac,

calomel, and fine charcoal.

Third Composition—Consisting of potassium chlorate, chlorate of barium, and shellac.

White Stars—Consisting of potassium nitrate. sulphur (carefully washed), sulphide of antimony, realgar, gunpowder, and magnesium, incorporated with shellac solution, and with or without the addition of thoroughly purified guncotton, not exceeding 10 per cent. by weight of the finished stars.

Blue Stars-Consisting of potassium chlorate, calomel, oxalate of copper, stearine, and charcoal.

Stars-Consisting of potassium, chlorate, oxalate of sodium, carbonate of strontium, shellae, and fine cement. Provided that each star may have a fine strand, not exceeding 5 grains in weight, of thoroughly purified nitro-cotton attached to and passing through it. Provided also that there may be in the upper portion of the signal a small ring of gunpowder to facilitate the ignition and ejection of the stars, such ring being separated from contact with those stars containing a chlorate.

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Sound Signal Rockets-Consisting of a signal rocket, having fitted in the head thereof one or more charges of tonite or cotton powder as herein described, and with or without a layer of compressed gunpowder made of sulphur free from acid, potassium mitrate, and charcoal, between the said charges, and having embedded in the said charges one or more detonators as above defined, such detonators to contain above the fulminate a substantial layer either of strongly compressed mealed gunpowder, or of a composition made of two or more of the following ingredients, viz., potassium nitrate, sulphur (carefully washed), realgar, antimony, gunpowder.

Socket Light Signals-Consisting of cases of tin or other suitable material containing one or more white or coloured stars of the compositions hereinafter specified, and having attached to the base of the said case in a case or bag of indiarubber, canvas, or other suitable material, a charge of gunpowder not exceeding 21/2 ozs.. the said stars and gunpowder being connected by means of a suitable time-fuze of wood, copper. tinned iron, or other suitable material; provided that the total weight of the star or stars contained in any one signal shall not exceed 8 ozs.

> Red Stars—Consisting of nitrate of strontium, potassium chlorate, charcoal, and shellac, incorporated with shellac solution, with or without the addition of thoroughly purified guncotton, not exceeding 10 per cent. by weight of the finished stars.

Green Stars-Consisting of nitrate of barium, potassium chlorate, charcoal, and shellac, incorporated with shellac solution, with or without the addition of thoroughly purified gun-cotton, not exceeding 10 per cent. by weight of the finished stars.

White Stars—Consisting of potassium nitrate, sulphur (carefully washed), sulphide of antimony, realgar, gunpowder, and magnesium, incorporated with shellac solution, with or without the addition of thoroughly purified guncotton, not exceeding 10 per cent. by weight of the finished stars. Provided that each star may have a strand not exceeding 5 grains in weight of thoroughly purified nitro-cotton; attached to or passing through it.

Snaps for Bon Bon Crackers—Throwdowns— Containing an amount of explosive not exceeding

the proportion of 15 grains per 1.000.

Very Signal Cartridges—Consisting of a cartridge case, either rolled or solid, containing its own means of ignition, and loaded with gunpowder, and a coloured signal star, a felt wad intervening between the gunpowder and the star; and with another wad placed on top of the star, the whole being closed by means of a disc of cardboard over the mouth of the case.

And the Honorable John Murray, His Majesty's Chief Secretary for the State of Victoria, shall give the necessary directions herein accordingly.

Explosives Act 1890.

ORDER IN COUNCIL No 2.—MANUFACTURE OF EXPLOSIVES.

At the Executive Council Chamber, Melbourne, the twelfth day of October, 1909.

PRESENT:

His Excellency the Governor of Victoria.

Mr. Graham, Mr. Watt, Mr. Edgar.

Whereas by the 5th section of the Explosives Act 1890 it is enacted that the Governor in Council may from time to time make, alter, or repeal regulations for licensing factories for the manufacture of explosives, and for other purposes in conhexion with such manufacture: Now, therefore, in pursuance of the above-mentioned provisions of the said Act, His Excellency the Governor of Victoria doth, by and with the advice of the Executive Council thereof, repeal the Regulations made on the 13th day of December, 1897, with respect to the licensing of factories for the manufacture of explosive, and in lieu thereof doth make the following Regulations:—

REGULATIONS.

- r. A factory for the manufacture of explosives shall not be allowed except on the site and in the manner specified in a licence for the same, granted under these Regulations.
- 2. Applications for licences for factories must be made to the Minister, and must be accompanied by a draft of the proposed licence, accompanied by a plan (drawn to scale), of the proposed factory and the site thereof (which plan shall be deemed to form part of and to be in these Regulations included in the expression "the licence").
- 3. The draft licence shall set forth the conditions which the applicant desires the licence to contain, and shall specify such of the following matters as are applicable, namely:—
 - (a) The boundaries of the land forming the site of the factory, and either any belt of land surrounding the site which is to be kept clear, and the buildings and works from which it is to be kept clear, or the distances to be maintained between the factory or any part thereof, and other buildings or works.
 - (b) The situation, character, and construction of all the mounds, buildings, and works on the site of, or connected with, the factory, and the distances thereof from each other.

- (c) The nature of the processes to be carried on in the factory, and in each part thereof, and the place at which each process of the manufacture, and each description of work connected with the factory is to be carried on, and the places in the factory at which explosives and any ingredients of explosives, and any articles liable to spontaneous ignition, or inflammable, or otherwise dangerous are to be kept.
- (d) The amount of explosives and ingredients thereof, wholly or partially mixed, to be allowed at the same time in any building or machine, or in any process of the manufacture, or within a limited distance from such building or machine, having regard to the situation and construction of such building, and to the distance thereof from any other building or any works.
- (e) The situation of each factory magazine, and the maximum amount of explosives to be kept in each factory magazine.
- (f) The maximum number of persons to be employed in each building in the factory;
- (g) Any special conditions or provisions which the applicant may propose by reason of any special circumstances arising from the locality, the situation, or construction of any buildings or works, or the nature of any process, or otherwise.
- 4. In forwarding an application for a licence the applicant must also produce evidence to the Minister that the issue of a licence will not be contrary to the provisions of any by-law made by the council of the municipal district in which it is proposed to establish the factory.

the factory.

5. The Minister, after examination of the proposal, may reject the application altogether, or may approve of the draft licence with or without modification or addition.

6. On the preliminary approval of an application for a licence the applicant shall complete the factory and the arrangement thereof in accordance with the terms of the proposed licence, and to the satisfaction of a Government inspector, before the licence is actually issued.

- 7. Neither the factory nor any part thereof shall be used for any purpose not in accordance with the licence.
- 8. The conditions of the licence shall be duly observed, and the manufacture or keeping, or any process in or work connected with the manufacture or keeping, of explosives shall not be carried on except under conditions approved of by a Government inspector, and any breach of the conditions of the licence shall be deemed to be a breach of these Regulations.
- 9. The factory and every part thereof shall be maintained in accordance with the licence; and no material alteration in the factory either by enlarging or adding to the site, or by externally enlarging or adding to any building thereon, or by altering any mound otherwise than by enlargement, or by making any new work, shall be made except by permission in writing of the Minister. Any alteration so made and sanctioned by the Minister shall be deemed to be part of the licence, and the licence shall be construed accordingly.
- ro. The quantity, of any explosive or ingredients that may be placed or stored at any one time in any factory or in any part thereof, shall not exceed such quantity as may be prescribed in the licence.
- 11. Every factory magazine shall be used only for the keeping of such explosive and of such ingredients thereof as may be specified in that behalf in the licence, and receptacles for or tools or implements for work connected with the keeping of such explosives and ingredients.
- 12. Every building in which explosive or any ingredient thereof which either by itself is possessed of explosive properties, or which when mixed with any other ingredient or article also present in such building is capable of forming an explosive mixture or an explosive compound, is kept, or present, or in the course of manufacture is liable to be, shall, unless specially exempted by the licence or by an order of a Government inspector, be deemed to be a danger building; and the interior of every such building, and the benches, shelves, and fittings in such building (other than machinery), shall be so constructed or so lined or covered as to prevent the exposure of any iron or steel in such manner, and the detachment of any grit, iron, steel, or similar substance in such manner, as to come into contact with any explosive or ingredients thereof in such building; and such interior, benches, shelves, and fittings shall, so far as is reasonably practicable, be kept free from grit and otherwise clean.
- 13. Every factory magazine and expense magazine shall have attached thereto a sufficient lightning conductor, unless by reason of the construction by excavation, or the position of such magazine, or otherwise, a Government inspector of explosives considers a conductor unnecessary; and every danger building shall, if so required by the Government inspector of explosives, have attached thereto a sufficient lightning conductor.
- 14. Charcoal, whether ground or otherwise, and oiled cotton, oiled rags, and oiled waste, and any article whatever liable to spontaneous ignition, shall not be taken into any danger building except for the purpose of immediate supply and work or immediate use in such building, and upon the cessation of such work or use shall be forthwith removed.
- 15. Before repairs are done to or in any room in or other part of a danger building, that room or part shall, so far as practicable, be cleaned by the removal of all explosive and wholly or partly mixed ingredients thereof, and by the thorough washing of such room or part; and such room or part of the building after being so cleaned shall not be deemed to be a danger building within the meaning of these

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- Rules until explosive or any ingredient thereof which either by itself is possessed of explosive properties, or which when mixed with any other ingredient or article also present in such building is capable of forming an explosive mixture or an explosive compound is again taken into it.
- 16. There shall be constantly kept affixed in every danger building, either outside or inside, in such manner as to be easily read, a statement of the quantities of explosive or ingredients allowed to be in the building, and a copy of these Rules, and of any parts of the Act required by the Government inspector of explosives to be affixed, and of such part of the licence and special Rules made under the Act as apply to the building; also the name of the building or words indicating the purpose for which it is used.
- 17. All tools and implements used in any repairs to or in a danger building shall be made only of wood or copper, or brass, or some soft metal or material, or shall be covered with some safe and suitable material.
- 18. Due provision shall be made, by the use of suitable working clothes without pockets, suitable shoes, searching, and otherwise, or by some of such means, for preventing the introduction into any danger building of fire, lucifer matches, or any substance or article likely to cause explosion or fire, and for preventing the introduction of any iron, steel, or grit into any part of a danger building where it would be likely to come into contact with explosive or the wholly or partially mixed ingredients thereof; but this rule shall not prevent the introduction of artificial light of such construction. position, or character as not to cause any danger of fire or explosion.
- 19. No person shall smoke in any part of the factory except in such part (if any) as may be allowed by the special rules.
- 20. Any carriage, boat, or other receptacle in which explosive, or any ingredient thereof which by itself is possessed of explosive properties, or which when mixed with any other ingredient or article also present in such carriage, boat; or receptacle is capable of forming an explosive mixture or an explosive compound, is conveyed from one building to another in a factory, or from any such building to any place outside of such factory, or from one part of a factory to any other part or to a place outof such factory, shall, unless specially exempted by the licence, or by an order inspector, be a Government constructed without any exposed iron or steel in the in-terior thereof, and shall convey only the explosive and ingredients, and shall be closed or otherwise properly covered over; and the explosive and ingredients shall be so conveyed with all due diligence. and with such precaution and in such manner as will sufficiently guard against any accidental ignition or explosion; provided that so much of this rule as applies to the exclusion of iron or steel shall not be obligatory in the case of a carriage, boat, or other receptable in which no explosive other than explosive of the 1st division of the 6th (Ammunition) class is conveyed.
- 21. A person under the age of 16 years shall not be employed in or enter any danger building except in the presence and under the supervision of some grown-up person.
- 22. Every ingredient in course of manufacture into explosive which either by itself is possessed of explosive properties, or which when mixed with any other ingredient or article also present in any working building is capable of forming an explosive mixture or an explosive compound, shall be removed with all due diligence from such working building so soon as

the process connected with those ingredients which is carried on in such building is completed, and all finished explosive shall with all due diligence either be removed to a factory magazine or sent away immediately from the factory, and such explosive and ingredients shall be loaded and unloaded with all due diligence.

- 23. Wherever danger may arise from foreign matter being present with the explosive or any ingredient thereof, all ingredients to be made or mixed into explosive shall before being so made or mixed be carefully examined, sifted, or otherwise treated for the purpose of removing therefrom or excluding, so far as practicable, all such dangerous foreign matter.
- 24. All explosives intended for conveyance from a factory shall be packed and marked in the hereinafter-described manner, and in determining to what class or division any explosive may belong, the classification and division of explosives as gazetted by Order of the Governor in Council under section 49 of the Explosives Act 1890 must be strictly observed:—
 - Unless the context otherwise requires:—The
 expression "outer package" means a
 box, barrel, case, or cylinder of wood,
 metal, or other solid material, of such
 strength and character that it will not be
 broken or accidentally opened, nor become defective or insecure whilst being
 conveyed, and will not allow any explosive to escape.
 - The expression "inner package" means a substantial case, bag, canister, or other receptacle, made and closed so as to prevent any explosive from escaping.
 - Wherever an explosive is distinguished as belonging to a particular class or division of a class, reference is made to the classification of explosives as contained in an Order in Council made under section 49 of the Explosives Act 1890.
 - The expression "authorized explosive" means exclusively an explosive defined

- in a list of authorized explosives signed by a Government inspector and in force for the time being.
- for the time being.

 The expression "propellant" means an authorized explosive of Class III. adapted and intended exclusively for use as a propelling charge in cannon or small arms.
- The expression "special authority" means a written authority granted by a Government inspector, to which may be attached such conditions as may in the opinion of the Government inspector be necessary to meet the special requirements of the case.
- The interior of every package shall be free from grit and otherwise clean.
- 3. Save as hereinafter provided there shall not be any iron or steel in the construction of any package unless the same is covered with suitable material so as effectually to prevent the exposure of such iron or steel.
- 4. Every package when actually used for the packing of one explosive shall not be used for the packing of any other explosive or of any other article or substance.
 - Provided that this rule shall not prohibit the packing of inner packages containing a propellant in an outer package with inner packages containing gunpowder or other propellant.
 - Provided also that this rule shall not prohibit the packing of any article which is not of an inflammable or explosive nature, or liable to cause fire or explosion, in the same package as explosive of the 1st division of the 6th (Ammunition) class.
- 5. Subject to the foregoing provisions, the following shall be the method of packing authorized explosives of the various classes respectively and the maximum amounts which may be in any one package:—

METHOD OF PACKING EXPLOSIVES.

Class.	· Method of Packing.	Amount in any one Outer Package.	Amount in any one Inner Package.
Class I	When the quantity in any one consignment does not exceed 5 lbs. in amount, a single outer package; otherwise A double package, the inner and outer packages being as above defined	:	are packed to-
Class II	As for Class 1	50 lbs.	50 lbs.
Class III., Division 1, other than propellants.		50 lbs.	5 lbs.
Cordite and other propellants of Division 1, Class III.	As for Class 1	50 lbs.	50 lbs.

METHOD OF PACKING—continued.

	METHOD OF PACKING—continued.		
Class.	Method of Packing.	Amount in any one Outer laskage.	Amount in any one luner Package.
Class III., Division 2, other than Pictic Acid and Wes		50 lbs.	5ό Ibs.
Plerie Abid	As for Class I	Unlimited.	Unlimited.
Guñcotttifi sc wetted with water as to be absolutely tudin- flammable.	package, or both of them, shall be of such a nature; and so closed, as to prevent any material	Unlimited.	Unlimited.
Class IV,	As for Class 1	5ö lbs.	50 lbs.
Class V:	Packed iii water: A treble package; the innermost package being a bag permeable to water, enclosed in a case containing sufficient water to ensure the explosive being kept constantly wet, and the outer package containing sufficient water constantly to surround the case. Both the case and the outer package shall be of such construction as will not allow water to escape. If the explosive is of such character that it cannot be packed in a thoroughly wet condition, it shall be packed in accordance with the conditions set forth in a special authority	30 0 lbs:	25 lbs.
Class VI:, Division 1, other than Pin Fire Cartridges for Pistols.	of this division. Provided also that bulleted	Unlimited:	
Pin Fire Cartridges for Pistols.		50 in number. 2.500 in number.	50, in number.
Class VI., Division 2:	Explosives made up into cartridges or charges for cannon; shells, torpedoes, mines, blasting, or other like purposes, shall be packed in such manner and in such quantity as is required for the same explosive, when not so made up; provided that where a double package is required, the enclosing case of such cartridge or charges may, if it satisfy the conditions required for an inner package, be held to be such inner package. Other ammunition of this division:—A single outer package	róó Íbs.	
Class VI., Divi- sion 3, other than Detonators and Electric Detonators.	Provided that bulleted cartridges of a calibre exceeding 0.5 inch and belonging to this division	· 50 lbs.	2 lbs. of 10 in number, whichever be the greater.

METHOD OF PACKING-continued.

Cinss.	Method of Packing.	Amount in any one Outer Package.	Amount in any one Inner Package.	
Detonators	(a) Not exceeding 1,000 in any one consignment:—As for Class 1, provided that the detonators and the spaces between the same, and between the sides of the inner package and the said detonators, shall all be filled, as far as practicable, with fine sawdust or other similar material; a layer of felt or other soft yielding material shall be placed between both ends of all the detonators and the interior of the inner package in which the same are placed, in such manner, and so secured, that both ends of the detonators will rest upon the said cotton wool or other material; every inner package, if of metal, to be lined throughout with paper or other soft material; and	1,000 in number.	100 in number.	
	(b) Exceeding 1,000 detonators:—The detonators shall be packed in inner packages with sawdust and cotton wool as above described. Such inner packages shall be placed inside a substantial case of wood or metal, made and closed so as to prevent any of the inner packages escaping therefrom, and such case shall be placed inside an outer package in such manner and so secured as to leave a clear space of not less than three inches between the case and every part of the interior of the said outer package; notwithstanding that such clear space may, if preferred, be filled with sawdust, straw, or other similar material, or may contain a light framework or battens of wood to keep the case aforesaid in position in the outer package; and (c) Where the number of detonators exceeds 5,000, such outer package shall be provided with handles		in number.	
Electric Detonators.	or other contrivance, by means of which it can be safely and conveniently carried As for Class 1, provided that where the number in any outer package exceeds 3,000, such outer package shall be provided with handles or other contrivance by means of which it can be safely and conveniently carried	5,000	100 in number.	
Class VII., Division 1.	Double package, the inner package being hermeti- cally closed, and contained in an outer package as above defined		ı lb.	
Class VII., Division 2.	Single outer package, provided that the above General Rule No. 3 shall not apply to explosives of this division			

- 6. Nothing in this Order shall be deemed to prohibit the use of an additional package, whether inner or outer, provided that such additional package shall not be of such character as shall have been prohibited in writing by a Government inspector.
- An explosive which is not an authorized explosive shall be packed in such manner as may be directed by a special authority with reference to such explosive.
- 8. On the outer package there shall be affixed in conspicuous characters by means of a brand or securely attached label or other mark, the word "Explosive," the name of the explosive, the number of the class and division to which it belongs, and the name of the manufacturer or sender.
- In the case of explosives of Classes III. and IV., there shall be added the date of manufacture or issue from the factory, or such sign indicating such date, as may be approved by a Government inspector.
- Provided that in the case of cartridges or charges for cannon, shells, mines, blasting or other like purpose, which do not contain their own means of ignition, the marking shall be as for the explosive when not so made up.
- Provided also that in the case of explosives of Class VI., Division I, there shall be added the words "Not liable to explode in bulk."
- Provided also that in the case of pin fire cartridges for pistols there shall be added the words "Pin Fire cartridges."

- Provided also that in the case of gunpowder the word "Explosive" and the number of the class and the division may be omitted.
- Provided also that where an outer package contains more than one explosive, the marking above required shall be affixed separately in respect of each explosive so contained.
- 9. To meet special cases, exemption may be granted by special authority from the observance of any one or more of the conditions imposed by these Rules.
- 25. The occupier of, and every person employed in and about the factory, shall take all due precaution for the prevention of accidents by fire or explosion in the same, and for preventing unauthorized persons having access to the factory, or any part thereof, or to the explosives therein, and shall abstain from any act whatever which tends to cause fire or explosion, and is not reasonably necessary for the purpose of the work in such factory.
- 26. No fire or light shall under any circumstances be taken inside any building forming part of a factory (other than those specified by a Government inspector, nor any light except a lantern approved for that purpose by a Government inspector, such lantern shall be taken only by the foreman. All persons entering the factory, and before passing within the fencing thereof, shall examine their clothes to see that they have no matches or other dangerous articles in their pockets, or about their persons, and the occupier shall satisfy himself that such examination is carefully carried out, and that all persons employed in the factory are duly searched from time to time.
- 27. The keys of all danger buildings in connexion with the factory shall remain in charge of a person duly authorized in writing by the occupier, and shall be at any time available if required by a Government inspector.
- 28. The occupier shall cause to be kept a stockbook for each factory magazine, showing at all times the quantities in store, and showing also the quantities taken in and out, and the dates and times at which the same are taken in and out, and by whom. All such stock-books shall be at any time available if required by a Government inspector.
- 29. No broken or defective cases or boxes containing explosives shall be admitted into the magazines, nor shall any explosive be admitted which is not packed in the manner directed in these Regulations. Any explosive which may be spilt shall at once be carefully taken up and destroyed.
- 30. No tools or instruments of any description shall be taken into a danger building for any purpose, nor used outside the magazines for opening or closing the cases of explosives, except those duly approved by a Government inspector and provided for that purpose.
- 31. The doors of the magazines shall be kept securely locked, except at such times as explosives are being taken in or removed.
- 32. On the approach of a thunderstorm the magazines and other danger buildings shall be closed, and every person engaged in and about them shall be withdrawn therefrom.

- 33. Every occupier of a factory licensed for the manufacture of explosives shall keep a record of the name and address of each person to whom and the date on which he sells such explosive, together with the description of such explosive, and the quantity thereof sold, and shall produce on demand such record for inspection by a Government inspector.
- 34. The person who applies for and to whom a
- factory licence is issued shall be deemed the occupier.
 35. The expression "factory magazine" means a building for keeping the finished explosive made in the factory, and includes, if such explosive is not gunpowder, any building for keeping the partly manufactured explosive or the ingredients of such explosive which is mentioned in that behalf in the

REGULATIONS REGARDING "RACKAROCK!" AND "LITHYTE."

- 36. The Minister may issue to such persons as he may think fit licences authorizing the manufacture by such persons of the explosive known as rackarock.
- 37. The names of the ingredients to be used in the manufacture of the said explosive shall be mentioned in each licence.
- 38. The manufacture of the said explosive shall not be carried on underground in any mine.
- 39. No person shall carry on the manufacture of the said explosive other than the person to whom the licence is issued, or some person in his employ duly authorized in writing by him.
- 40. If in any matter which is not provided for by any express condition or proviso in any licence, a Government inspector find any store for the said explosive, or for the ingredients which, when combined, constitute the said explosive, or any part thereof, or any thing or practice therein or connected therewith, to be unnecessarily dangerous or defective, so as in his opinion to tend to endanger the public safety or the bodily safety of any person, such inspector may require the person to whom the licence is issued to remedy the same at once and without delay; and, if such person neglect to do so, such neglect shall be deemed a breach of these Regulations.
- 41. The Minister may, either with or without notice, at any time stop the manufacture of the said explosive by any licensed person provided he deem such stoppage necessary in the interest of public safety, or may, in the said interest, direct the licensee or his agent, to alter or amend the process of manufacture in such manner as he or any person duly authorized by him in that behalf may direct.
- 42. The Minister may, by notice in writing, declare any such licence void upon being satisfied that the manufacture of the said explosive is not being conducted in accordance with the conditions of the licence or in accordance with the directions given in pursuance of the last preceding clause, and that the further continuance of its manufacture will imperil the public safety.
- 43. The conveyance of Rackarock in any vehicle or boat, in or upon any public thoroughfare, river, harbor, or public place within Victoria, is hereby prohibited.
- 44. The licence shall be valid to the person only to whom it is issued.
- 45. The above Regulations relating to Rackarock shall apply in like manner to the explosive known as Lithyte.

And the Honorable John Murray, His Majesty's Chief Secretary for the State of Victoria, shall give the necessary directions herein accordingly.

> F. W. MABBOTT, Clerk of the Executive Council.

Explosives Act 1890.

ORDER IN COUNCIL No. 3.—LICENCES TO CARRY EXPLOSIVES AND CARRIAGE OF EXPLOSIVES IN MIXED TRAINS.

At the Executive Council Chamber, Melbourne, the twelfth day of October, 1909.

PRESENT:

His Excellency the Governor of Victoria.

Mr. Graham, Mr. Watt,

Mr. Edgar.

WHEREAS by the 14th section of the Explosives Act 1890 it is enacted that the Governor in Council may make, alter, and repeal Regulations for the licensing of carriers of explosives, and prescribing the quantity and quality of explosives or of any particular kinds of explosive, and also the variety of explosives which may be carried in the same railway truck, cart, dray, waggon, or other carriage, and generally for regulating the carriage of explosives; Now, therefore, in pursuance of the above-mentioned provisions of the said Act, the Governor of Victoria doth, by and with the advice of the Executive Council thereof, order as follows:—

All previous Regulations for the licensing of carriers of explosives and with respect to the carriage of explosives in mixed trains are hereby repealed, and in lieu thereof the following shall be substituted:—

REGULATIONS.

- . r. The Minister shall direct the manner in which licences are to be issued to carriers of explosives.
- 2. All licences to carriers of explosives shall be issued subject to the provisions of the *Explosives Act* 1890 and the *Explosives Act* 1896, and to all Orders and Regulations made and provided for by these Acts.
- 3. A licence to any carrier of explosives shall be valid for the person only to whom it may be issued, or for any employé in the exclusive service of such person.
- 4. The licence to a carrier of exposives shall be in the form contained in Schedule r to these Regulations.
- 5. The Minister may at any time, at his discretion, and without assigning any reason, cancel or revoke any licence issued for the carriage of explosives.
- 6. Licences to carry explosives may be obtained from any Receiver of Revenue upon payment of the prescribed licence-fee.

Conveyance of Explosives in Mixed (Passenger and Goods) Trains. .

Regulations.

- 1. Explosives to be carried in approved cylinders.—Gunpowder or Nitrate mixtures belonging to Classes I and 2, or any explosive included in the 2nd and 3rd Divisions of the 6th (Ammunition) Class, and of the 7th (Fireworks) Class, as classified by Order in Council No. I made under section 49 of the Explosives Act 1890, if packed in metallic cylinders of a pattern approved of by the Commissioners of Railways, may be conveyed together with ordinary goods in a truck or trucks not containing any article or substance liable to cause or communicate fire or explosion.
- 2. Certain explosives not to be carried together in the same truck.—No explosive of the 6th (Ammunition) Class containing its own means of ignition, or any explosive of the 7th (Fireworks) Class shall be conveyed in the same truck with any explosive not of the class and division to which it belongs.
- 3. Maximum of explosives to be carried.—Not more than 1,000 lbs. of explosives (other than Detonators), and not a greater number than 30,000 Detonators, shall be carried on any one train.
- 4. Mode in which explosives to be carried.—The number of trucks (not containing explosives or inflammable material of any kind) which shall intervene between the engine or the passenger carriages and each truck containing explosives shall be as follows:—
 - (a) When carrying over 300 lbs. of explosives (other than Detonators) and over 10,000 Detonators, not less than three.
 - (1) When carrying under 300 lbs. of explosives (other than Detonators) and under 10,000 Detonators, one or more.
- 5. Explosive trucks to be detached at sections where goods trains run.—Immediately on the arrival of a mixed train conveying explosives at a section on which goods trains are running the trucks containing the explosives shall be detached.

- 1. The Regulations governing the carriage of explosives in mixed (passenger and goods) trains shall also apply to the carriage of explosives together with ordinary goods in goods trains. Provided that—
 - (a) The total quantity of explosives (other than Detonators) carried by any one goods train shall not exceed 2,000 lbs.
 - (b) The quantity of Detonators so carried on any one train shall not exceed 60,000 in number.
 - (c) Not less than three trucks (not containing explosives or any kind of inflammable material) shall intervene between the engine and the truck or trucks containing explosives.
- 2. Explosives to be packed and marked in accordance with Explosives Act.—All explosives intended for conveyance in metallic cylinders must be packed and marked in accordance with the provisions of the Explosives Act.

SCHEDULE I.

Victoria.

LICENCE TO CARRY EXPLOSIVES.

Receipt and Pay Office.

This licence is issued to of for the carriage of explosives, subject to the provisions of the Explosives Act 1890 and the Explosives Act 1896 and all Regulations and Orders now in force and which may from time to time be made under the said

This licence shall remain in force until the 31st December next unless previously cancelled or revoked.

Receiver of Revenue.

And the Honorable John Murray, His Majesty's Chief Secretary for the State of Victoria, shall give the necessary directions herein accordingly.

F. W. MABBOTT, Clerk of the Executive Council.

Explosives Act 1890.

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ORDER IN COUNCIL No. 4.—LICENCES FOR THE STORAGE OF EXPLOSIVES IN PRIVATE MAGAZINES.

At the Executive Council Chamber, Melbourne, the twelfth day of October, 1909.

PRESENT:

His Excellency the Governor of Victoria.

Mr. Graham, Mr. Watt, Mr. Edgar.

Whereas by the 15th section of the Explosives Act 1890 it is enacted that the Minister may license, on such conditions as he deems fit, any private magazine for the storage of explosives and may at any time at his discretion cancel any such licence: And whereas by the 16th section of the said Act it is enacted that the Governor in Council may from time to time make regulations and rescind the same for the storage of explosives in magazines and for other purposes relating to explosives in magazines: Now, therefore, in pursuance of the 16th section of the said Act His Excellency the Governor of Victoria doth, by and with the advice of the Executive Council thereof, order and make the following Regulations with respect to the storage of explosives in private magazines and for other purposes relating to explosives in magazines:—

REGULATIONS.

- 1. A private magazine for explosives shall not be allowed except on the site and in the manner specified in a licence for the same, granted under the Explosives Act 1890.
- 2. An applicant for such licence shall submit to the Minister the draft of a licence, accompanied by a plan drawn to scale of the proposed magazine and the site thereof (which plan shall be deemed to form part of and to be in these Regulations included in the expression "the licence").
- 3. The draft licence shall contain the terms which the applicant proposes to have inserted in the licence, and shall specify such of the following matters as are applicable, namely:—
 - (a) The boundaries of the land forming the site of the magazine, and either any belt of land surrounding the site which is to be kept clear, and the buildings and works from which it is to be kept clear, or the distances to be maintained between the magazine or any part thereof, and other buildings or works.
 - (b) The situation, character, and construction of all the mounds, buildings, and works on the site of or connected with the magazine, and the distances thereof from each other.

- (c) The place at which each description of work connected with the magazine is to be carried on, and the places in the magazine at which explosives and any ingredients of explosives, and any articles liable to spontaneous ignition, or inflammable or otherwise dangerous, are to be kept.
- (d) The amount of explosives to be allowed at the same time in any building, or within a limited distance from such building, having regard to the situation and construction of such building, and to the distance thereof from any other building, or any work.
- (c) The situation of each building forming part of such magazine in which explosives are to be kept, and the maximum amount of explosives to be kept in each such build-
- ing.

 (f) Any special conditions or provisions which the applicant may propose by reason of any special circumstances arising from the locality, the situation, or construction of any buildings or works, or other-
- 4. In forwarding an application for a licence the applicant must also produce evidence to the Minister that the issue of a licence will not be contrary to the provisions of any by-law made by the council of the municipal district in which it is proposed to establish the magazine.

5. The Minister, after considering the application, will either refuse to issue a licence, or will approve of the draft licence with or without modi-

fication or addition.

6. An application to use a hulk or other floating vessel as a private magazine for the storage of explosives shall be made as far as applicable in the same manner as an application for a private magazine, as hereinbefore directed; and the whole hulk or other floating vessel in or on board which explosives are stored shall be deemed to constitute the magazine, and each cabin, hold, and any part of the same in which explosives are kept or are liable to be so kept, and every other part which may be specified in that behalf in the licence, shall be deemed to be a danger building.

7. On the approval of an application for a licence, the applicant shall complete the magazine and the arrangement thereof in accordance with the

terms of the proposed licence, and to the satisfaction of a Government inspector, before the licence is actually issued.

- 8. Neither the magazine nor any part thereof shall be used for any purpose not in accordance with the licence.
- 9. The conditions of the licence shall be duly observed, and the keeping, or any work connected with the keeping, of explosives shall not be carried on except in accordance with those conditions; if any breach of such conditions occur, the licence will be liable to be immediately cancelled. And a breach of any of the conditions of the licence shall be deemed also to be a breach of these Regulations.
- To. The magazine and every part thereof shall be maintained in accordance with the licence; and in the case of a magazine on land, no material alteration in the magazine, either by enlarging or adding to the site, or by externally enlarging or adding to any building, or by altering any mound otherwise than by enlargement, or by making any new work, shall be made except by the approval, in writing, of a Government inspector. No alterations or additions on any hulk or other floating vessel shall be allowed except with the approval, in writing, of a Government inspector.
- or are intended to be kept shall be deemed a danger building and shall be used only for the keeping of explosives, and the tools or implements for work connected with the keeping of such explosives. The interior of every danger building, and the benches, shelves, and fittings therein, shall be so constructed or so lined or covered as to prevent the exposure of any iron or steel, or the detaching of any grit, iron, steel, or similar substance in such manner that such iron, steel, or grit, or similar substance may come into contact with explosives or any ingredients thereof in such danger building; and the interior of every such danger building, and the benches, shelves, and fittings therein, shall, so far as is reasonably practicable, be kept free from grit and otherwise clean.
- 12. Every danger building shall have attached thereto a sufficient lightning conductor, unless an Inspector of Explosives shall consider a conductor unnecessary.
- 13. No charcoal, whether ground or otherwise, or oiled cotton, or oiled rags, or oiled waste, or any article whatever liable to spontaneous ignition, shall be taken into any danger building.
- 14. There shall be constantly kept affixed to every danger building, either outside or inside, in such manner as to be easily read, a statement of the quantities of explosives or ingredients allowed to be in the building, and a copy of these Regulations to be affixed thereto, and of such part of the licence for the magazine as appears to specially apply to such danger building.
- 15. Before repairs are done to, or in any room, or in other part of a danger building, that room or part shall, so far as practicable, be cleaned by the removal therefrom of all explosives, and of any wholly or partly mixed ingredients thereof, and by the thorough washing out of such room or part; and such room or part of the building after being so cleaned shall not be deemed to be a danger building within the meaning of these Regulations until explosives or any wholly or partly mixed ingredients thereof are again taken into it. Except after such cleaning all tools and implements used in any repairs to, or in any danger building, shall be made only of wood or copper or brass or some soft metal or material, or shall be covered with some safe and suitable material.

- r6. Due provision shall be made, by the use of suitable working clothes without pockets, suitable shoes, searching, and otherwise, or by some of such means, for preventing the introduction into any danger building of fire, lucifer matches, or any substance or article likely to cause explosion or fire, and for preventing the introduction of any iron, steel, or grit into any part of the magazine where it would be likely to come into contact with explosives, or any wholly or partly mixed ingredients thereof; but this rule shall not prevent the introduction of an artificial light of such construction, position, or character as not to cause any danger of fire or explosion. Due precaution must be taken to exclude water from every danger building.
- 17. No person shall smoke in any part of the magazine.
- 18. Every carriage, boat, or other receptacle in which explosives or any wholly or partly mixed ingredients thereof are conveyed from one building to another in a magazine, or from any such building to any place outside of such magazine, shall be constructed without any exposed iron or steel in the interior thereof, and shall contain only the explosives and ingredients, and shall be closed or otherwise properly covered over; and the explosives and ingredients shall be so conveyed with all due diligence, and with such precautions and in such manner as will sufficiently guard against any accidental ignition or explosion.
- 19. No person under the age of sixteen years shall be employed in, or enter any danger building, except in the presence of and under the supervision of some person of full age.
- 20. Nothing in these Regulations shall prevent coal or other fuel being taken on board any hulk or other floating vessel used as a private magazine, provided the maximum quantity to be kept on board at any one time is specified in the licence and stored in some safe place with free and sufficient ventilation and with all due precautions against ignition, whether spontaneous or otherwise, and provided the place where such fuel is to be consumed shall be approved by a Government inspector.
- 21. There shall not be kept in any private magazine licensed for the storage of explosives any—
 - (a) Explosive of the 5th (Fulminate) Class.
 - (b) Explosive which is not for the time being either authorized to be manufactured for general sale or authorized to be imported.
- 22. If two or more explosives are kept in the same magazine they shall be separated from each other by such intervening partition of such substance and character, or by such intervening space as will effectually prevent explosion or fire in the one communicating with the other, subject, nevertheless, to the following qualifications:—
 - (a) The various explosives of Class 1, Class 2, Class 3, and such of the various explosives of the 2nd Division of Class 6 (Ammunition), as do not contain any exposed iron or steel, may be kept with each other without any intervening partition or space.
 - (b) The various explosives of the 1st Division of Class 6 (Ammunition) may be kept with each other without any intervening partition or space.
 - (c) Such of the various explosives of the 2nd Division of Class 6 (Ammunition) as contain any exposed iron or steel may be kept with each other without any intervening partition or space.

(d) The various explosives of the 3rd Division of Class 6 (Ammunition) may be kept with each other without any intervening partition or space.

(e) The various explosives of Class 7 (Firework) may be kept with each other without any intervening partition or space.

- 23. The licensee of every magazine and every person employed in and about the same shall take all due precaution for the prevention of accidents by fire or explosion in the same, and for preventing unauthorized persons having access to the magazine or to the explosives therein, and shall abstain from any act whatever which tends to cause fire or explosion, and is not reasonably necessary for the purpose of the work in such magazine.
- 24. Every licensee of a magazine may, and if required by the Minister shall, with the sanction of the Minister, make special rules for the regulation of the persons managing or employed in or about such magazine, with a view to secure the observance of these Regulations therein, and the safety and proper discipline of the said persons and the safety of the public.
- 25. The licensee may, and if required by the Minister shall, with the sanction of the Minister, repeal, alter, or add to any special rules made in pursuance of the preceding clause.
- 26. No licensee shall receive into his private magazine any explosive on the outermost package or covering of which there are not branded, labelled, or marked the words or characters required by the Regulations issued under the provisions of the Explosives Act 1890 respecting the packing and marking of explosives in a factory or for conveyance.
- 27. The payment of the annual licence-fee in connexion with a private magazine will not confer the right to sell explosives. If any licensee desires to trade in explosives he must take out a licence to sell explosives.
- 28. While any explosive, other than explosive of the 1st Division of the 6th (Ammunition) class, is being received or delivered, or while the hatches or door of any danger building, or the hatches or

coverings of any vessel, barge, or craft, which contains any such explosive are open, no fire, unprotected lights, or smoking shall be allowed; and when any vessel, barge, or craft having on board a fire, other than engine fire properly banked up, or unprotected lights, is alongside a magazine containing any explosive other than explosive of the 1st Division of the 6th (Ammunition) class, or in its immediate vicinity, no receipt or delivery of explosive shall be carried on, and the hatches or door of any danger building shall not be open.

- 29. A danger building shall be deemed to be every building or place in which any explosive is kept or present; and every building in which explosive or any ingredient thereof which either by itself is possessed of explosive properties, or which, when mixed with any other ingredient or article also present in such building is capable of forming an explosive mixture or an explosive compound, is kept, or present, or in the course of manufacture is liable to be, shall, unless specially exempted by the licence or by an order of a Government inspector, be deemed to be a danger building.
- 30. Magazine shall include any building, chamber, hulk, or floating vessel, or place set apart exclusively for the storage of explosives.
- 31. The person to whom a licence has been issued under these Regulations shall be called the licensee, and shall be deemed to be the keeper of the magazine.
- 32. All regulations respecting the storage of explosives in private magazines issued prior to the date of these Regulations are hereby rescinded.
- 33. Wherever in these Regulations an explosive is distinguished as belonging to a particular class or division of a class reference is made to the classification of explosives contained in an order of the Governor in Council made in pursuance of section 49 of the Explosives Act 1890.

And the Honorable John Murray, His Majesty's Chief Secretary for the State of Victoria, shall give the necessary directions herein accordingly.

F. W. MABBOTT, Clerk of the Executive Council.

$Explosives \ Act \ 1890.$

COUNCIL No. 6.—PROHIBITING THE IMPORTATION, KEEPING, CONVEYANCE, AND SALE OF EXPLOSIVES, EXCEPT UNDER CERTAIN CONDITIONS OR RESTRICTIONS.

At the Executive Council Chamber, Melbourne, the twelfth day of October, 1909.

PRESENT:

· His Excellency the Governor of Victoria.

Mr. Graham, Mr. Watt,

Mr. Edgar.

WHEREAS by the 52nd section of the Explosives Act 1890 it is enacted that notwithstanding anything in the first part of the said Act the Governor in Council may from time to time by order prohibit either absolutely or subject to the said act the first part of the said act the governor in Council may from time to time by order prohibit either absolutely or subject to conditions or restric-tions the manufacture, keeping, importation from any place out of Victoria, conveyance and sale or any of them, of any explosive when in the judgment of the Governor in Council it is expedient for the public safety to make such order: And whereas, in the judgment of the Governor in Council, it is expedient for the public safety to make this Order: Now, therefore, in pursuance of the above-mentioned provisions of the said Act, His Excellency the Governor of Victoria doth by and with the advice of the Executive Council thereof, order as follows:---

For all previous Orders prohibiting the importation, keeping, conveyance, and sale of explosives, except under certain conditions, or restrictions, as set forth therein, the following shall be substituted:---

The undermentioned explosives shall not be imported from any place out of Victoria, kept, conveyed, or sold, except upon the conditions or restrictions hereinafter set forth:---

PART I.

CLASS I.—GUNPOWDER.

The term "gunpowder" means exclusively gunpowder ordinarily so-called.

Gunpowder.

CLASS 2.-NITRATE MIXTURE.

The term "nitrate mixture" means any prepara-tion, other than gunpowder ordinarily so-called, formed by the mechanical mixture of a nitrate with any form of carbon or with any carbonaceous substance not possessed of explosive properties, whether sulphur be or be not added to such preparation, and whether such preparation be or be not mechanically mixed with any other non-explosive substance.

Bobbinite. Chilworth Special Powder. Electronite. Excelsion. Fortis Explosive. Safety Blasting Powder. CLASS 3 .-- NITRO-COMPOUND.

The term "nitro-compound" means any chemical compound possessed of explosive properties, or capable of combining with metals to form an explosive compound, which is produced by the chemical action of nitric acid (whether mixed or not with sulphuric acid) or of a nitrate mixed with sulphuric acid upon any carbonaceous substance, whether such compound is mechanically mixed with other substances or not.

Every explosive in this class and every explosive ingredient thereof shall be so thoroughly purified and otherwise of such character as to satisfy a test known as the Heat Test, and specified in a memorandum signed by a Government inspector, and dated the 1st January, 1909.

Every blasting explosive in this class for which nitrate of sodium is used as an ingredient, shall be contained in cartridge cases or wrappers made thoroughly waterproof with melted paraffin or other suitable waterproofing material.

The nitro-compound class has two divisions.

Division 1.

Division I. comprises the following explosives and any chemical compound or mechanically mixed preparation which consists either wholly or partly of nitro-glycerine or of some other liquid nitro-compound:—

Abbcite. Amberite No. 1. Arkite. Ballistite. Blasting Gelatine No. 1. Blasting Gelatine No. 1, Dragon brand. Blasting Gelatine No. 2. Cambrite. Camphorated Gelatine. Carbo-Dynamite. Carbonite. Cordite. Cornish Powder. Dynamite No. 1. Dynamite No. 2. Excellite. Fracturite. Gelatine Dynamite No. 1. Gelatine Dynamite No. 1, Dragon brand. Gelatine Dynamite No. 2, or Gelignite. Gelatine Dynamite No. 2, or Gelignite, Dragon brand. Haylite. Infallible Smokeless Powder. Jones' Dynamite No. 2. Kallenite. Kolax. Kynite. Lanite. Lignin Dynamite. Monobel Powder. Rippite. Saxonite. Stonite.

Provided that every explosive in this Division shall be of such character and consistency as not to be liable to liquefaction or exudation.

Division 2.

Division 2 comprises the following explosives and any nitro-compound (as before defined) which

is not comprised in the first division :-Amberite No. 2. Bellona. Blasting Amberite. Cannonite No. 1.
Cannonite No. 2. Collodion Cotton. Cooppal's Powder. Di-flamyr. E.C. Sporting Powder. E.C. Powder Company's Rifle Powder, J.B. patent. Empire Powder. Gun-cotton. Henrite. Imperial Schultze Gunpowder, I.X.L. Blasting Powder. King's Semi-Smokeless Powder. Kynock's Smokeless Powder. Life Safe. Mullerite. Nitrated Gun-cotton. Nitro-cotton. Nitrokol. Nitro-lignin. Normal Sporting Powder. Picric Acid. Potentite. Rendite. Rifleite. Rifle Gun-cotton. Roburite No. 1 Roburite No. 2. Roburite No. 3. Ruby Powder. Schultze Gunpowder. Schultze Blasting Powder. Smokeless Diamond. Smokeless Powder. S.S. Smokeless Gunpowder. Tom Thumb Powder.

Tonite or Cotton Powder No. 1.

Tonite or Cotton Powder No. 2. Troisdorf Smokeless Powder. Walsrode Powder.

CLASS 4.—CHLORATE MIXTURE.

The term "chlorate mixture" means any explosive containing a chlorate.

The chlorate mixture class has two divisions-

Division 1.

Division r comprises any chlorate preparation which consists partly of nitro-glycerine or of some other liquid nitro-compound.

Rackarock.

Lithyte.

Division 2.

Division 2 comprises any chlorate mixture, as before defined, which is not comprised in the first division.

'Cheddite.

Class 5 — Fulminate.

The term "fulminate" means any chemical compound or mechanical mixture, whether included in the foregoing classes or not, which, from its great susceptibility to detonation, is suitable for employment in percussion caps or any other appliances for developing detonation, or which, from its extreme sensibility to explosion, and from its great instability (that is to say, readiness to undergo de-composition from very slight exciting causes), is especially dangerous.

This class consists of two divisions.

Division 1.

Division 1 comprises such compounds as the fulminates of silver and of mercury, and preparations of these substances, such as are used in percussion caps; and any preparation consisting of a mixture of a chlorate with phosphorus, or certain descriptions of phosphorus compounds, with or without the addition of carbonaceous matter, and any preparation consisting of a mixture of a chlorate with sulphur, or with a sulphuret, with or without carbonaceous matter.

Fulminate of Mercury.

Division 2.

Division 2 comprises such substances as the chloride and the iodide of nitrogen, fulminating gold and silver, diazobenzol and nitrate of diazobenzol.

Nil.

Class 6.—Ammunition.

The term "ammunition" means an explosive of any of the foregoing classes when enclosed in any case or contrivance, or otherwise adapted or prepared so as to form a cartridge or charge for small aims, cannon, or any other weapon, or for blasting, or to form any fuse for blasting (other than safety fuse), or for shells, or to form any tube for firing explosives, or to form a percussion cap, a detonator, a fog signal, a shell, a torpedo, a war rocket, or other contrivance other than a firework.

The term "percussion cap" does not include a

detonator.

The term "detonator" means a capsule or case which is of such strength and construction, and contains an explosive of the fulminate-explosive class in such quantity that the explosion of one capsule or case will communicate the explosion to other

like capsules or cases.

The term "safety fuse" means a fuse for blasting which burns and does not explode, and which does not contain its own means of ignition, and which is of such strength and construction and contains an explosive in such quantity that the burning of such fuse will not communicate laterally with

other like fuses,

The ammunition class has three divisions.

. Division 1.

Percussion Caps.* Railway Fog Signals. Safety Cartridges. Tube Safety Fuse.

Tube Safety Fuse.

Safety Firing Tubes No. 1.

*In consequence of the results of experiments carried out, it has been decided that a percussion cap can only be properly classed as such if it contains less than 0.6 grain of a composition of the rst Division of the 5th (Fulminate) Class of which not more than 25 per cent. consists of fulminate of mercury, or less than 0.5 grain of any other explosive of the 1st Division of the 5th (Fulminate) Class; and, in consequence of an accident on board the s.s. Manitoba in July, 1808, it has been further decided that percussion caps shall not be classed as such when they contain anvils or have their composition unprotected by tinfoil or other suitable substance, as under those circumstances they are liable to explode en masse.

Division 2.

Division 2 comprises any ammunition, as before defined, which does not contain its own means of ignition, and is not included in Division 1.

Abel's Electric Tubes. Abel's Electric Fuses Bickford's Patent. Volley Firers. Brain's Electric Fuses. Cartridges for Small Arms (which are not Safety Cartridges). Cartridges for Cannon, Shells, Mines, Blasting, or other like purposes. Electric Fuses-Smith's Patent. Electric Fuses. Elswick Electric Tubes. Electric Gunpowder Fuses. Fraser's Fuse Igniters. Fuses for Shells. German Spills. Gunpowder Fuses. Gun-cotton Fuses. High Tension Electric Fuses. High Tension Electric Fuses (Brain's Patent). Instantaneous Fuse. Low Tension Electric Fuses.

Division 3.

Pain's Instantaneous Pyrotechnic Fuses.

Division 3 comprises any ammunition as before defined which contains its own means of ignition, and is not included in Division 1.

Cartridges for Small Arms (which are not safety cartridges). Colliery Safety Lighters.

Detonators.

Electric Detonators.

Elswick Mechanical Tubes.

Fuses for Shell.

Miners' Squibs.

War Rockets.

Spon's Electric Fuses. Tubes for firing Explosives.

Safety Firing Tubes No. 2.

Tubes for firing Explosives (other than Detonators).

CLASS 7.—FIREWORK.
The term "firework" comprises firework composition and manufactured fireworks.

Division 1 .- Firework Composition. Nil.

Division 2.—Manufactured Fireworks. Aluminium Torches. Magnesium Torches. Amorces. Crack Shots. Distress Signal Rockets.

Incendiary Stars. Incendiary Shells. Lightning Paper. Magic Candle Pin Crackers. Manufactured Fireworks.
Socket Sound Signals.
Socket Distress Signals.
Sound Signal Rockets. Socket Light Signals. Snaps for Bonbon Crackers. Throwdowns. Very Signal Cartridges.

Any explosives not enumerated amongst those described hereinbefore shall be absolutely prohibited from being imported from any place out of Victoria, kept, conveyed,

or sold.

This Part of this Order may be cited as the list of authorized explosives.

· PART II.

CONDITIONS OR RESTRICTIONS.

IMPORTATION.

 No explosive except those defined under Class
 Division I., shall be imported into Victoria unless the person importing such explosive shall hold an importation licence, and the holder of such importation licence shall be called the licensee.

2. An importation licence shall be required for each kind of explosive, and such importation licence

shall hold good for one consignment only. 3. Every applicataion for an importation licence must be made to an inspector of explosives, and must contain the name in full, the occupation, and address of the applicant, the name of the explosive, the quantity of such explosive desired to be imported, and the name of the place where such explosive is intended to be landed.

4. The importation licence shall be in the form prescribed in the first schedule of these Regulations.

5. The licensee shall not convey any explosive or cause any explosive to be conveyed from the ship in which such explosive was imported to any place other than the place named in the importation licence

6. The licensee shall not convey in any ship or cause to be conveyed in any ship for the purpose of importation into Victoria any explosive other than the explosive specified in the importation licence.

7. The licensee shall not convey in any ship or cause to be conveyed in any ship for the purpose of importation into Victoria any quantity of explosives greater than the quantity specified in the importation licence.

8. The licensee shall not convey in any ship or cause to be conveyed in any ship for the purpose of importation into Victoria any explosive packed and branded, labelled, or marked in a manner other than in the manner required by the Regulations respecting the packing and marking of explosives in a factory as set forth in Order in Council No. 2. In determining to what class or division any explosive may belong the classification and definition of explosives as gazetted by order of the Governor-in Council under section 49 of the Explosives Act 1890 must be strictly observed.

9. The importation licence shall be valid for the person only named in the licence.

10. No importation licence for any explosive shall be issued unless the composition, quality, and character of such explosive have by order been defined by the Governor in Council under section 49 of the Explosives Act 1890.

11. Any explosive conveyed into Victoria except those classified under Division 1, Class 6, without an importation licence may be forfeited and destroyed, or otherwise disposed of as the Minister shall direct.

- 12. No master, owner, or agent of any ship shall convey or cause to be conveyed in any ship for importation into Victoria any case or package containing explosives on the outermost package or covering of which there shall not be branded, labelled, or marked, the words or character in the manner described in the Regulations respecting the marking of explosives in a factory. The omission of one or more of the words or characters so required shall be deemed a breach of this Order.
- 13. The licensee shall deliver a notice on the form prescribed in the second schedule to this Order to the inspector of explosives, and another to the tide surveyor in Williamstown, or to the chief officer of Customs at the port of delivery not less than one week before the expected arrival of any explosive.
- 14. The licensee must, when required or demanded, produce his importation licence to any inspector of explosives, any officer of Customs, any pilot, or any master, owner, or agent of any ship in which any explosive is conveyed for importation into Victoria.
- 15. No master, owner, or agent of any ship, or licensee shall convey any explosive, or cause to be conveyed from the ship in which it was imported to any other ship or boat until permission has been granted for such conveyance by an inspector of explosives or officer of Customs.
- 16. Every licensee shall, for the purpose of examination, open or cause to be opened at the request of an inspector of explosives or any officer of Customs, any or every case or package containing explosives imported under an importation licence, and shall deliver, or cause to be delivered, without payment to any inspector of explosives, or any officer of Customs, samples of such explosives in such quantity as such inspector or officer may deem necessary, and shall at once and without delay fasten or cause to be fastened safely and securely any package which may be so opened.
- 17. A transhipment shall under this Order be deemed to be a delivery. Under this part of this Order any person shall be deemed to convey, or cause to be conveyed, explosives who has brought, or caused to be brought, any explosive by ship or carriage into any place in Victoria, whether such explosive has been landed or not from such ship or carriage.
- 18. Explosives brought into Victoria and intended for transhipment may be temporarily stored in a magazine on any hulk approved by an inspector of explosives, and under such conditions as he may deem necessary for public safety.

 19. No explosive shall be cleared at the Customs
- 19. No explosive shall be cleared at the Customs House without an order from a Government inspector of explosives.

PART III.

KEEPING OF EXPLOSIVES.

- 20. No person shall keep any explosive unless he shall previously have obtained a licence to do so, issued under the provisions of the Explosives Act 1890, and on the conditions referred to or set out in or on such licence. Provided that an offence shall not be deemed to be committed under this Regulation in the following cases (that is to say):—
 - (a) Where gunpowder (whether or not contained in cartridges), or any nitro-compound adapted and intended exclusively for use in cartridges for small arms only, is kept for private use only and not for sale, to an amount not exceeding 30 lbs.

- (b) Where any explosive other than gunpowder or small arm nitro-compound as hereinbefore mentioned in this Part of this Order is kept for private use and not for sale, to an amount not exceeding 5 lbs., besides 100 detonators.
- 21. Except when contained in safety cartridges there shall not be kept for private use any explosive which is not an authorized explosive. Explosive of the 5th (Fulminate) Class shall not be kept for private use.
- 22. Every person keeping for private use only the quantity of explosives allowed under this Part of this Order shall take all due precaution in the storage of the same and for the prevention of any accident by fire or explosion.

PART IV.

THE CONVEYANCE OF EXPLOSIVES.

- 23. No person shall convey any explosive without holding a licence issued to him under section 14 of the Explosives Act 1890, but any person may convey for his own private use and not for sale without a licence the quantity of explosives allowed to be kept for private use under Part III. of this Order. Provided that whilst any explosive is being conveyed for private use it shall be carried with all due precautions to prevent accidents.
- 24. No person shall convey, or cause to be conveyed, any explosive in any carriage or boat whilst such carriage or boat is carrying or plying for passengers, unless the quantity does not exceed 5 lbs., and the same be securely covered, and all due precaution be taken for the prevention of accidents by fire or explosion; but in no case shall there be conveyed in any carriage or boat, whilst carrying or plying for passengers, any explosive of the 5th (Fulminate) Class. or any explosive of the 3rd Division of the 6th (Ammunition) Class, or any explosive of the 1st Division of the 7th (Firework) Class.
- 25. No person shall convey, or cause to be conveyed, explosives after sunset or before sunrise. Provided that this condition shall not apply to the conveyance of any explosive for private use and not for sale so that the amount of it do not exceed what is allowed by this Order to be kept for private use.
- 26. No person shall convey, or cause to be conveyed, any explosive of the 5th (Fulminate) Class, or any explosive of the 6th (Ammunition) Class, which contains its own means of ignition, or any explosive of the 7th (Firework) Class, in the same carriage or boat with any explosive not of the class and division to which it belongs, unless it be sufficiently separated therefrom to prevent any fire or explosion which may take place in one such explosive being communicated to another.
- 27. No person shall convey, or cause to be conveyed, in any carriage or boat any quantity of any explosive of the 5th (Fulminate) Class, any quantity of any explosive of the 3rd Division of the 6th (Ammunition) Class, any quantity of any explosive of the 1st Division of the 7th (Firework) Class, or any quantity exceeding 5 lbs. of any other explosive, unless the following conditions be strictly observed:—
 - (a) If the explosive is not effectually protected from accident by fire from without by being conveyed in the interior of a carriage which is enclosed on all sides with wood or metal, or other suitable material or by being conveyed in the hold of a boat having a close deck securely

- closed, then the explosive shall be completely covered with painted cloth, tarpaulin, wadmill-tilts, or other suitable material, so as to effectually protect it against communication of fire.
- (b) There shall not be any iron or steel in the interior of the portion of the carriage or boat where the explosive is deposited, unless the same be covered either permanently or temporarily with leather, wood, cloth, wadmill-tilts, or other suitable material.
- (c) In any carriage or boat containing explosive no matches other than safety matches shall be carried for the use of such carriage or boat, and such safety matches shall be kept in a safe place apart from the explosive.
- (d) No person whilst on, in, or attending any carriage or boat containing any explosive shall smoke when within any city, town, township, or settlement.
- (e) No person in charge of any carriage or boat containing explosives shall drive or conduct the same in a dangerous or reckless manner; and no person who is intoxicated shall be permitted to have, or continue in, charge of any such carriage or boat.
- (f) While the loading, unloading, or conveyance of explosive is going on, all persons engaged in such loading, unloading, or conveyance shall observe all due precautions for the prevention of accidents by fire or explosion, and for preventing unauthorized persons having access to the explosive so being loaded, unloaded, or conveyed and shall abstain from any act whatever which tends to cause fire or explosion, and is not reasonably necessary for the purpose of the loading, unloading, or conveyance of such explosive, or of any other article carried therewith, and for preventing any other person from committing any such act.

(g) After the loading or unloading of explosive on or out of any carriage or boat is begun, no longer time shall be suffered to pass than with the use of all due diligence is reasonably necessary for the purpose of such loading or unloading.

(h) No explosive shall be loaded or unloaded from any carriage or boat in or upon any public highway, street, road, thoroughfare, or public place, or at any public wharf or landing place, except with the consent of and under conditions approved by a Government inspector.

(i) No person shall forward to a warehouseman or carrier a consignment of explosive unless he has given notice to
such warehouseman or carrier beforehand, stating the name and quantity of
the explosive proposed to be conveyed,
and the name and address of the proposed consignee, and has had an intimation, either general or special, of the
time at which the warehouseman or
carrier is prepared to receive the consignment; and no warehouseman or
carrier shall give such an intimation or
receive such consignment unless he is
prepared either forthwith to despatch
the same or to deposit it in a magazine
or store duly licensed for the keeping

of such explosive. The expression "warehouseman" includes all persons owning or managing any warehouse, shop, store, wharf, or other premises in which goods are deposited.

(j) Explosives shall not be conveyed in a carriage or boat which is carrying as merchandise any article liable to cause fire or explosion, or to communicate fire, such as charcoal, lucifer matches, articles for striking a light, or inflammable oils.

(k) No person in charge of a carriage or boat conveying explosive shall delay for a longer time than may be reasonably necessary, nor stop unnecessarily, at any place where such stopping would be attended with special public danger.

(l) In the case of a carriage or boat conveying explosive due provision shall be made for preventing the introduction into such carriage or boat of fire, lucifer matches, or any substance or article likely to. cause explosion or fire, or the introduction of any iron, steel, or grit, so as to come into contact with such explosive; and if the explosive carried in any such carriage or boat is liable to be dangerously affected by water, due precautions shall be taken to exclude water from coming into contact with such explosive. This clause shall not be construed to prevent the introduction of an artificial light of such construction, position, or character, or of safety matches of such character, as not to cause any danger of fire or explosion.

(m) The owner of every carriage or boat on, from, or in which explosive exceeding 100 lbs. is loaded, unloaded, or conveyed, who employs others in such loading, unloading, or conveyance shall, by furnishing copies of the conditions relating to conveyance, or by affixing copies of the same in some place where they can be conveniently read, or otherwise take such measures as may be necessary, in order that the persons so employed may be acquainted with the conditions relating to conveyance.

(n) Each carriage or boat conveying explosives exceeding 100 lbs, shall be in the exclusive charge of and constantly attended by some competent person, and such person shall not have charge of more than one such carriage or boat. This clause shall not apply in the case of a carriage forming part of a continuous train or any railway or tramway if such train is in the charge of and constantly attended by some competent person.

(a) The amount of explosive to be conveyed in any one carriage or boat shall not exceed 110 lbs. unless the carriage or boat to be used for such conveyance shall be of good and substantial construction roofed with wood or other material approved by a Government inspector, and capable of being closed by means of doors and locks, and shall have the word "Explosives" painted in plain and conspicuous characters on both sides thereof; in which case the amount of explosive conveyed shall not exceed 550 lbs. A special exemption from the operation of this condition may

be granted by a Government inspector by a written authority to which may be attached such conditions as may in the opinion of the Government inspector meet the special requirements of the case.

(p) The quantity of explosives to be conveyed in any one carriage or boat exclusively used for the purpose shall not exceed 2,000 lbs., unless the carriage be so enclosed on all sides with wood or metal, or the boat have a close deck so closed as effectually to protect the explosives against accident by fire from without, in which case the amount of explosives conveyed shall not exceed the following:—

In any one carriage on a railway or tramway (whether worked by steam or otherwise) ... 10,000 lbs.

In any other carriage ... 4,000 lbs.
In any one boat ... 50,000 lbs.
Provided that whatever be the amounts of the explosive conveyed, the word "Explosive" shall be affixed or painted on both sides of the said carriage or

(q) When two or more carriages or boats conveying explosives exceeding in the aggregate the amount allowed by the preceding clause to be conveyed in one such carriage or boat are travelling together, a space of at least 50 yards shall be kept between each such carriage or boat and every other such carriage or boat, unless circumstances render it impracticable, or unless in the case of a train on a railway or tramway three or more vans not containing inflammable or explosive goods intervene between each such carriage and every other such carriage.

boat.

Nothing in this clause shall apply to any explosive of the 1st Division of the 6th (Ammunition) Class, provided all due precautions are taken for the prevention of accidents.

28. Every explosive which for the time being is neither authorized by licence to be manufactured for general sale, nor authorized to be imported for

general sale, may be carried only in such manner as may be specially directed by an inspector of explosives.

29. No person shall convey, or cause to be conveyed, any explosive which is not packed, branded, labelled, or marked in the manner described in the Regulations respecting the packing and marking of explosives in a factory. The omission of one or more of the words or characters so required shall be deemed a breach of this Order.

30. Explosive shall not be conveyed in any carriage or boat appropriated for the removal of refuse, or be handed or forwarded to any person employed in the removal of refuse.

31. Nothing in this part of this Order shall affect or interfere with the by-laws now or hereinafter in force of the Victorian Railways relating to the conveyance of explosives.

32. Wherever in this Order an explosive is distinguished as belonging to a particular class or division, reference is made to the classification of explosives as defined by the Order in Council under section 49 of the Explosives Act 1890.

PART V.

SALE OF EXPLOSIVES.

33. No person shall sell any explosives except those enumerated in this Order.

34. No person shall sell any explosive without holding a licence issued under section 24 of the Explosives Act 1890, and unless such explosive is specified on the licence issued to him.

FIRST SCHEDULE. IMPORTATION LICENCE.

IMPORTATION LICENCE.

Explosives Office, Melbourne.

This licence is issued to of as licensee, authorizing him to import at the Port of

pounds of an explosive known as as defined by an Order of the Governor in Council.

This licence is granted subject to the conditions or restrictions made and provided for by an Order of the Governor in Council under section 52 of the Explosives Act 1890.

Inspector of Explosives.

SECOND SCHEDULE.

Explosives Act 1890.
NOTICE OF EXPECTED ARRIVAL OF EXPLOSIVE FOR IMPORTATION.

FORM A**

Licence under which the Importation is to be made.	Port or Place of the proposed Importation.	Name of Ship or Boat in which the Importation is to be made.	Probable Date of Arrival.	Name and Address of Consignor.	Name and Address of the Manufacturer of the Explosive.	Port or Place at which the Explosive was Shipped.	Nature of the Explosive to be Imported.	Amount of the Explosive to be Imported.
No. Date.				,				

I			· · · · · · · · · · · · · · · · · · ·	,	
	•				
Signature of	Licensee				· · · · · · · · · · · · · · · · · · ·
Address of	Licensee				
		Date	·		

And the Honorable John Murray, His Majesty's Chief Secretary for the State of Victoria, shall give the necessary directions herein accordingly.

F. W. MABBOTT,

Clerk of the Executive Council.

Explosives Act 1896.

ORDER IN COUNCIL No. 7.-LICENCE-FEES.

At the Executive Council Chamber, Melbourne, the twelfth day of October, 1909.

PRESENT :

His Excellency the Governor of Victoria.

Mr. Graham, .
. Mr. Watt,

Mr. Edgar.

Whereas by the 8th section of the Explosives Act 1896 it is enacted that there shall be paid by applicants for the several kinds of licences issued under the provisions of the Explosives Act 1890, such fees as may be prescribed by Regulations to be made by the Governor in Council. Now, therefore, in pursuance of the above-mentioned provision of the said Explosives Act 1896; His Excellency the Governor of Victoria doth, by and with the advice of the Executive Council thereof, repeal the Regulations made on the 13th day of December, 1897, respecting the amounts to be charged for the several kinds of licences issued under the said Act, and in lieu thereof doth make the following Regulations:—

REGULATIONS.

Manufacturing Licences.

1. The fee to be charged annually for a licence to manufacture explosives shall be as follows:—

	£	s.	d.				
Licence to manufacture nitro-							
compound and other explosives	2	0	0				
Licence to manufacture fire-							
works only	1	0	0				
Licence to manufacture safety							
fuses only	1	0	0				
Licence to manufacture amorces							
or toy caps only	a	10	0				
Licence to manufacture coloured	•		•				
fires only	_	τ.	_				
Licence to manufacture rackarock	•	10	U	٠			
•••	_	_	_				
or lithyte	0	5	0				
Carriers' Licences							

Carriers' Licences.

2. The fee to be charged annually for a licence to carry explosives shall be as follows:—

Licence to carry explosives ... o 2

Keeping Explosives.

3. The fee to be charged annually for a licence for the safe keeping of explosives shall be as follows:—

Licence for private magazine in which the quantity to be kept is 2,000 lbs. or under 2,000 lbs. 0 10 0

Licence for private magazine in which the quantity to be kept is above 2,000 lbs. ... 1 0 0

Sale of Explosives.

4. The fee to be charged annually for the sale of explosives shall be as follows:—

Licence to sell fireworks ... o 1 o Licence to sell all other explosives o 5 o .

Importation Licence.

5. The fee to be charged for each importation licence shall be as follows:—

f. s. d.

For every 2,000 lbs. gross weight of explosives specified in the importation licence or portion of 2,000 lbs. ... o

0 5 10

And the Honorable John Murray, His Majesty's Chief Secretary for the State of Victoria, shall give the necessary directions herein accordingly.

F. W. MABBOTT, Clerk of the Executive Council.