

1905.  
—  
VICTORIA.

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# R E P O R T

OF THE

## CHIEF INSPECTOR OF EXPLOSIVES

TO

### THE HONORABLE THE CHIEF SECRETARY,

ON THE

## WORKING OF THE EXPLOSIVES ACT DURING THE YEAR 1904.

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PRESENTED TO BOTH HOUSES OF PARLIAMENT PURSUANT TO THE PROVISIONS OF  
SECTION 35 OF ACT No. 1090.

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By Authority:

ROBT. S. BRAIN, GOVERNMENT PRINTER, MELBOURNE.



*Explosives Act 1890.*

**ANNUAL REPORT FOR THE YEAR 1904.**

Melbourne, 31st December, 1904.

SIR,

In accordance with the provisions of the *Explosives Act 1890*, I have the honour to submit my Annual Report on the working of the Act during the year 1904.

An Order in Council was gazetted on 16th December, 1904 in connection with the marking of explosives.

No accidents have occurred during the year in the manufacture, storage, or transport of explosives.

The following explosives have been authorized for importation, storage, and transport, viz. :—"Smokeless Diamond powder," "Haylite No. 1," and the composition of the explosive Rack-a-Rock has been amended.

The Government magazines at Bright and Castlemaine were closed during the year as they were little availed of by the public ; both these magazines have since been leased to private firms, and licensed as private magazines.

The cause of a fire on board the s.s. "*Pilbarra*," and an explosion on board the s.s. "*Coolgardie*" were investigated during the year on behalf of the Marine Board.

The stables at the Truganina Explosives Reserve were burned down, supposed wilfully by a swagman; the person suspected was not arrested, owing to want of evidence.

**IMPORTATION.**

One hundred and forty licences to import explosives were issued during the year.

The nature, quantities and values of the explosives imported in 1904 are given in the following table :—

The importation (other than Detonators) exceeded that of 1903 by 273,603 lbs.

**RETURN SHOWING KINDS AND QUANTITIES OF EXPLOSIVES IMPORTED INTO VICTORIA DURING THE YEAR 1904, ALSO ESTIMATED VALUES.**

Name of Explosive.	No. of Cases.	Weight in Pounds.	Estimated Value.		
			£	s.	d.
Gelignite ... ..	21,766	1,088,300	48,973	10	0
Gelatine Dynamite ... ..	4,471	223,550	11,736	17	6
Blasting Gelatine ... ..	2,256	112,800	6,768	0	0
Cheddite ... ..	1,200	60,000	1,650	0	0
Powder, Fuse ... ..	...	92,525	1,831	19	11
Powder, Blasting ... ..	...	176,625	3,002	12	6
Powder, Sporting ... ..	...	32,950	3,435	16	9
...	...	1,783,750	£77,398	16	8
		Total Number.			
Detonators ... ..	957	4,649,000	£6,973	10	0

TABLE showing the Number of Samples of the various Explosives, and Materials connected with their Manufacture, examined during 1904.

Name of Substance.	Number of Samples.		
	Passed.	Rejected.	Total.
Amberite No. 2 ... ..	13	...	13
Amorces ... ..	...	4	4
Blasting Gelatine ... ..	52	6	58
Ballistite ... ..	4	...	4
Cambrite ... ..	1	...	1
Cheddite, 60 bis. ... ..	45	...	45
Cordite ... ..	30	...	30
Diamond Smokeless Powder ... ..	1	...	1
Dynamite No. 1 ... ..	1	...	1
Electric Detonators ... ..	1	...	1
Eley's Smokeless Powder ... ..	1	...	1
Fireworks ... ..	28	...	28
Fuse (Safety) ... ..	53	...	53
Fuse Igniters ... ..	1	...	1
Gelatine Dynamite ... ..	102	14	116
Gelignite ... ..	413	6	419
Imperial Schultze <sup>m</sup> ... ..	2	...	2
King's Semi-smokeless Powder ... ..	2	...	2
Kynock's Sporting Smokeless Powder ... ..	1	...	1
New Schultze Powder ... ..	3	...	3
Nitrobenzol ... ..	1	...	1
Powder (Gun) Black ... ..	9	...	9
Rack-a-Rock (Solid Ingredient of) ... ..	16	...	16
Saxonite ... ..	2	...	2
<b>Total</b> ... ..	<b>782</b>	<b>30</b>	<b>812</b>
<b>Miscellaneous Articles :—</b>			
Galvanized Nails, Tacks, Screws, from Cases of Explosives ... ..	...	...	6
Fuse, Glass and Stone Bottles, Paper and Oil Tin, and Debris, from Kyneton Hotel Explosion ... ..	...	...	5
Grass Tree Gum, Defence Department ... ..	...	...	1
Paper saturated with Nitro-Glycerine and Debris from Explosion, Box Hill Safe Robbery ... ..	...	...	5
Iron Pipe from Refrigerating Machinery and Calcium Chloride, s.s. <i>Coolgardie</i> Explosion ... ..	...	...	2
Lock Parts, Nitro-Glycerine, Kieselguhr, Carlton Brewery Robbery ... ..	...	...	3
Sound Signal Rockets, Ports and Harbor Department ... ..	2	...	2
Parchment Paper for Wrapping Explosives ... ..	...	2	2
<b>Total</b> ... ..	<b>2</b>	<b>2</b>	<b>26</b>
<b>Grand Total</b> ... ..	<b>...</b>	<b>...</b>	<b>838</b>

*Amorces.*—Two consignments of amorces were imported during the year, but no licences having been taken out to cover their importation legal proceedings were instituted against the masters of the vessels and nominal penalties obtained. The amorces which had been landed and passed into consumption before the facts of the illegal importations had been discovered were traced to three city firms; on samples being obtained and chemically examined, the amorces were found to contain explosive considerably in excess of the amount prescribed in the "Authorized List" of explosives; proceedings were taken against the firms concerned and nominal penalties inflicted together with the forfeiture of the amorces. The whole of the cases of amorces were subsequently allowed to be shipped to the port of origin.

*Blasting Gelatine.*—The blasting gelatine imported during the year from European ports was of a very satisfactory nature; only one consignment of 5,000 lbs. was condemned on account of exudation of nitro-glycerine; this consignment was subsequently shipped by the local agents to Sydney.

*Cheddite.*—The whole of the cheddite imported during the year (two consignments) complied with the composition as defined by order in Council.

*Gelatine Dynamite.*—The gelatine dynamite imported during the year was on the whole satisfactory, only two consignments (5,000 lbs. and 500 lbs.) being condemned on account of exudation of nitro-glycerine. These were eventually used up by the Ports and Harbor Department in submarine work at Port Phillip Heads.

*Gelignite.*—The condition of the gelignite imported during the year was very satisfactory; only two consignments (150 lbs. and 1,000 lbs.) were condemned on account of exudation of nitro-glycerine. The smaller consignment was destroyed by burning, and the other was used up in connexion with submarine work at Port Phillip Heads.

*Safety Fuse.*—The whole of the safety fuse imported complied with the requirements of the Act.

#### MANUFACTURE.

The total number of factories under licence is seven. The system of licensing factories (similar to that initiated in Great Britain) ensures a thorough investigation of all technical details when the draft licence is under consideration, and affords protection to the local interests concerned.

Thirty rack-a-rock manufacturing licences were issued during the year.

#### STORAGE.

The total number of magazines under licence is 235, as against 220 in the previous year.

There are fifteen Government magazines available for public use, chiefly for the storage of commercial explosives.

On most of the private magazine sites, and on some of the Government magazine sites, annexes have been erected for the storage of detonators. This has proved to be a great convenience to the trade.

In connexion with the sewerage works being carried out in the suburbs of Melbourne, 21 magazine licences for the storage of explosives were issued. Owing to the near proximity of these magazines to public roads and dwelling houses, which is unavoidable, the quantities allowed to be stored were reduced to a minimum consistent with the carrying on of this important public work.

Special precautions have been taken against accidents in the construction of the magazines by the issue of special rules, and by a condition in the licence which requires a keeper to be in charge of a magazine, both by day and night, and by frequent inspection.

#### LICENSED PREMISES.

The number of licences issued during the year was 2,015, as against 1,923 issued during 1903.

Apart from the official inspections, a number of premises in isolated places, and small towns, were visited by the police, under special instructions from me. Notwithstanding the thorough supervision, only twenty persons were proceeded against for breaches of the Act. This result, taken together with the generally improved condition of licensed premises, is satisfactory evidence that storekeepers more generally realize the importance of making themselves acquainted with their obligations, and of fulfilling them.

#### ACCIDENTS.

No accidents by fire or explosion occurred during the year, in the manufacture, storage, or transport of explosives.

In Appendix "A", a list is given of accidents in the use of explosives, and for which the Department is in no way responsible. Most of these accidents were due to the non-observance of the most obvious precautions, and were therefore preventible.

#### PROSECUTIONS AND OFFENCES.

*Importation.*—Two persons were proceeded against for importing amorces into the State without a licence, and were fined £3 3s. respectively and the explosives forfeited.

One licensed person was warned in writing for a minor breach of the regulations.

*Manufacture.*—One licensed person was warned in writing for minor breaches of the regulations.

*Storage.*—One person was proceeded against for storing nitro-compounds and detonators together in the same magazine, and was fined 13s.

Two persons were proceeded against for keeping explosives in excess of the amount prescribed in their licences. One case was withdrawn on payment of £2 2s. costs, and in the other case a fine of £2 5s. was inflicted, with 8s. 6d. costs.

Three persons were proceeded against for keeping explosives not specified in their licences, and were fined £2 5s., with £6 13s. costs, and £7 10s. and £8, with £4 16s. 6d. costs respectively.

Four persons were proceeded against for keeping explosives without licence, and were fined £3 15s., with 16s. costs, and £2, with 15s. costs, and £5 5s., with 15s. costs, and £3, with £2 costs, respectively.

One person was proceeded against for storing explosives in an unauthorized place, and was fined £6.

Eighteen persons were warned in writing for minor breaches of the regulations.

*Licensed Premises.*—One person was proceeded against for keeping explosives in close proximity to inflammable liquids (oils), and was fined £3, with £2 costs.

One person was proceeded against for not keeping gunpowder in the receptacle provided for the storage of the same, and was fined £2, with £1 7s. costs.

Eight persons were proceeded against for keeping explosives for sale without licence, and were fined £7 10s., with £1 14s. 6d. costs, and £2 2s., with forfeiture of the explosive, and £1, with £6 costs, and £4 6s. 3d., with £2 13s. 6d. costs, and 10s., with £1 10s. costs, and £2 18s., with £1 10s. costs, and 7s., with £4 costs, and 10s., with £1 10s. costs, respectively.

Three persons were proceeded against for keeping explosives in greater amount than prescribed by their licences, and were fined £2 10s. and £3 10s., with 16s. costs, and £12 5s., with £1 costs, respectively.

One person was proceeded against for keeping an explosive illegally, and was fined £3 10s. 10½d. and forfeiture of the explosive.

One person was proceeded against for storing gunpowder and detonators together in the same receptacle, and for keeping an explosive not specified in licence, and was fined £10 5s.

Two persons were proceeded against for keeping explosives not specified in licences, and were each fined £1 15s., with £2 4s. costs.

One person was proceeded against for keeping nitro-compounds and detonators together in the same receptacle, and was fined £1 10s.

Two persons were proceeded against for not affixing a notice over outer door of premises, as required by section 25 of *Explosives Act 1890*, and were each fined £5, with 16s. costs.

One hundred and twenty-seven persons were warned in writing for minor breaches of the regulations

#### CONVEYANCE.

Two persons were proceeded against for illegally conveying explosives in a coach carrying passengers, and were fined £5, with £3 costs, and £1, with £3 costs, respectively.

One person was proceeded against for conveying explosives without a licence, and was fined £10, with £1 costs.

In conclusion, I again wish to acknowledge the able assistance and support which I have received from the Chief Commissioner of Police, and those of his officers with whom my duties have brought me into contact.

I have the honour to be,

Sir,

Your most obedient servant,

C. NAPIER HAKE,  
Chief Inspector of Explosives.

The Honorable the Chief Secretary,  
Treasury, Melbourne.

## APPENDIX A.

ACCIDENTS BY FIRE OR EXPLOSION which have been brought under the notice of the Department by the Secretary for Mines, from 1st January to 31st December, 1904.

Date.	Name of Mine.	Locality.	Explosive.	Names of Persons Killed or Injured.	Number of Persons—			Cause of Accident.
					Killed.	Injured.	Total.	
1904.								
Feb. 26	Prospecting Shaft	Castlemaine	Nitro-compounds	Fleming, A. ...	...	1	1	Premature explosion; one charge exploded while the fuse of another adjacent charge was being lighted
June 16	Lansell's Needle Mine	Bendigo ...	Nitro-compounds	Johns, J. ...	1	...	1	Drilling into an old hole containing an unexploded charge
June 22	Williams Fancy	Berringa...	Nitro-compounds	Leed, R. ...	...	1	1	Struck by a piece of rock detached by an exploded charge
Aug. 2	Britannia United	Ballarat ...	Nitro-compounds	O'Donnell, J. ...	...	1	1	Returning too soon to a charge that had hung fire
Aug. 27	Llanberris No. 2	Ballarat ...	Nitro-compounds	Bennetts, J. ...	...	1	1	Picking out loose rock from an exploded hole, and striking a plug of gelignite which had remained at the bottom of the hole unexploded
Aug. 31	Diamond Gully Dredging Coy.	Castlemaine	Nitro-compounds and detonators	Gilmore, P. ...	1	...	1	Dropping a short length of lighted fuse, with detonator attached, into a box containing a number of gelignite cartridges and detonators
Sept. 27	Clarence United	Bendigo ...	Nitro-compounds	Boots, C. ...	...	1	1	Drilling into an old hole containing portion of an unexploded charge
Oct. 26	Outtrim Coal Mine	Outtrim ...	Nitro-compounds	Simmonds, R. ...	1	...	1	Accidentally knocking over lamp, which caused a number of cartridges to ignite
Dec. 22	First Chance ...	Ballarat ...	Nitro-compounds	Kelly, T. ...	...	1	1	Allowing his candle to come in contact with a charge of gelignite which he was carrying
				Morrison, H. ...	...	1	1	
				Coats, W. ...	...	1	1	

## APPENDIX B.

TABLE SHOWING TOTAL REVENUE received in the administration of the Explosives Act during the year 1904.

Item.	Number.	Amount.
Licences—Importation ... ..	140	£ 355 0 0
Manufacture of Explosives, other than Rack-a-rock ... ..	7	8 10 0
Manufacture of Rack-a-rock ... ..	30	7 10 0
Magazine ... ..	235	160 10 0
Sale of Explosives, other than Fireworks ... ..	1,265	316 15 0
Sale of Fireworks ... ..	750	37 10 0
Chemical examination of Explosives—Certificates ... ..	44	138 15 0
Prosecutions—Fines ... ..	...	135 5 1
Costs ... ..	...	60 18 0
Rent from Magazines and Sites belonging to the Government ... ..	...	3,113 11 4
Grand Total ... ..	...	4,334 4 5

## APPENDIX C.

ANALYTICAL AND OTHER WORK done for other Departments, &amp;c., during 1904.

Department, &c.	Subject.
Secretary for Defence ... ..	Report on 200 barrels of cordite
The Comptroller of Customs ... ..	Report on the method adopted in Great Britain and Germany in denaturing alcohol
Secretary for Defence ... ..	Report <i>re</i> the proposed removal of gunpowder from Maribyrnong Magazine
Chief Inspector of Explosives, Hobart ... ..	Report on the explosive "Cheddite"
Ports and Harbor Department ... ..	Report on signal rockets
Secretary for Defence ... ..	Report <i>re</i> the establishment of a cordite factory
Secretary for Defence ... ..	Report on the explosive "Ammonal"
Secretary for Railways ... ..	Report on steel cylinders of liquified carbonic acid
Secretary for Defence ... ..	Report <i>re</i> establishment of a small arms and explosive factory
Secretary for Defence ... ..	Report <i>re</i> the manufacture of service explosives
Secretary for Defence ... ..	Report on tri-nitro-toluol
Secretary for Defence ... ..	Report on samples of cordite
Police Department ... ..	Report <i>re</i> safe robbery, Carlton Brewery
Carlton Brewery Coy. ... ..	Report <i>re</i> safe robbery, Carlton Brewery
Mr. E. E. Burgess (Bickford, Smith, and Co) ... ..	Report on samples of safety fuses
Police Department ... ..	Report <i>re</i> examination of débris, Box Hill bank robbery
Secretary for Defence ... ..	Further report <i>re</i> establishment of a cordite factory
Secretary for Defence ... ..	Report on sample of grass tree gum as a raw material for the manufacture of explosives
Secretary for Defence ... ..	Report <i>re</i> manufacture of cordite locally in case of an emergency
Secretary, Marine Board ... ..	Report on circumstances attending a fire on board s.s. "Pibarra"
Secretary for Defence ... ..	Report on samples of cordite
Secretary, Marine Board ... ..	Report on circumstances attending an explosion on board s.s. "Coolgardie"
Secretary for Defence ... ..	Report on 200 barrels of cordite