



Incorporated :

NEW ZEALAND PERMANENT FORCE OLD COMRADES ASSOCIATION

PO BOX 33 710, TAKAPUNA, AUCKLAND 1309

NEWSLETTER No 95

September 1997

A Registered Publication

LAST POST:

1622 E.G. (Ernie) Hight, 6 Jun (7, at New Plymouth. (Life Member).  
31338 G.D.S. (Geoff) Geddes, 30 Jun 97, at Kerikeri.  
42177 Lt Col H.A. (Hugh) Weatherhead, 1 Jul 97, at Christchurch.  
1976 B.G.F. (Basil) Nicholson, 5 Aug 97, at Auckland.  
1720 J.T. (Terry) Transom, 17 Aug 97, at Auckland. (Life Member)

CHANGES OF ADDRESS:

D.S. Ashley to 65B Marne Rd, Papakura.  
B. Ayling to 9Kalowendha Ave, Pelican Waters, Queensland 4551.  
M.G. Bell to 413 Lockington Rd, RD2, Katikati.  
R.G. Blankley MBE to 20 Lochinver Dr, Hamilton.  
B.J. Calder to 7 Grant Place, Matamata.  
P.J. Dixon to 20 Gordon Road, Plimmerton, Porirua.  
Lt P.M. GREGG to 114 Jary Rd, RD3, Ohaupo.  
Mrs J. Hankey to 10 Wrack St, Whangarei.  
K.F. Lee ED BA to 199 Barnard St, Wadestown, Wellington 6001.  
Maj Gen W.S. McKinnon CB CBE BSc to Sevenoaks Retirement Village,  
Kapiti Rd, Paraparaumu.  
Captain N.D.E. Rhynd to 45 Chamberlain Ave, Amberley Beach, RD1, Amberley

NEW MEMBERS:

Mrs C.L. (Carole) Weatherhead, 2 Harkness Pl, Avonhead, ChCh 8004 (Assoc)  
42383 J.I. (Jeff) Bold, MS 115, Childers, Queensland 4660.  
698393 G.R.(Graham) Anderson, Box 46030, Lower Hutt.  
Mrs J.I. (Joan) Transom, 71 Archers Rd, Glenfield, Auckland 1309 (Assoc.)  
Mrs R.A.(Ruth) Hight, 1267 Devon Rd, 3RD, New Plymouth (Assoc.).  
WO1 B.O. (Bo) Ngata RNZA, 16 Field Regt RNZA, Waiouru, Mil.Camp.

AMENDMENT TO NEWSLETTER No 94: From those to be struck off strength for failure to pay dues delete Lt Col H.A. Weatherhead.

COMMITTEE MEETING:

The next committee meeting will be held in the Quiet Room, Papakura RSA at 1000 hrs, Saturday 4 October, 1997. THIS IS IMPORTANT.  
Consideration is to be given to moving the Headquarters of our Association from Auckland to Papakura to take advantage of younger members resident in the area. All members interested are invited to attend. As mentioned in Newsletter 94, we are particularly interested in a new Secretary and Treasurer.



NZ ARMY LEAVE CENTRES: Bookings may be made as follows:

NORTH ISLAND: Phone Mrs Joan Richards on D Te IN 347 7823 or 04/527 58

SOUTH ISLAND: Phone Trevor Dodd on D Te IN or 03/363 0313.

Serving Regular Soldiers have first choice; retired Regulars second. Many of our members in the second category helped pay for Army Leave Centres by working as wharfies during the 1951 wharf strike, a point modern staff tend to forget. If reminding them (tactfully) say that soldiers did an honest day's work - they did not receive 'the needle' as did civilian wharfies. Let me explain: nine men made up a wharfie gang but only eight ever worked; one was always at the Waterloo Hotel (in Wellington) receiving an hour's 'injection' of the hotel's chief product. In other words, NZ consumers paid nine mens' wages for eight mens' work. As a WO2 'ganger' the writer matted a man for trying to emulate a wharfie. The Company Commander fined him £ 5 (\$10), the maximum in those days



Lieutenant Leroy Forrester proudly displays his Singapore Armed Forces Medal for Distinguished Act. The Singapore Government awarded the medal to Lt Forrester in recognition of his actions following the premature -detonation of an artillery shell in a Singaporean gun at Waiouru earlier this year

WO1(MG) Brett Rigden and WO2 Paul Galloway received certificates and letters of commendation from the SAF following the same accident.

Leroy suffered from a loss of feeling in his face and temporary hearing loss but we understand he has full recovered.

All members offer their congratulations.

We also take this opportunity of congratulating Leroy on his recent promotion.

NEWS FROM MEMBERS: Jackie Partner, 6 Spilman Place, Palmerston North, enjoys reading our newsletters and sends regards.

Bernard Ayling (see changes of address) has recently moved to Aussie about half-an-hour from Dan Foley whom he plans to visit. He will be back in AUckland in September 1998 for the wedding of one of his grand-daughters.

Reidar Pedersen, 46 Fernaig St, Papakura, enjoys news of Old COMrades



in the newsletters and articles on The Gun.

Jock Gunn, 1/289 Richardson Rd, Mt Roskill, Auckland 4 hopes all are keeping well and enjoying life. He finds our newsletters very interesting

Roger Pearce, 47 Simla Cres, Khandallah, Wellington, is still in business in that city. He does not see many Gunners these days but intends to catch up on us next time he is in Takapuna.

#### FUTURE OF ARMY ASSOCIATION (AUCKLAND):

A proposal to wind up the Association has been postponed for six months in the interests of the eight Cadet Corps - which the Association was instrumental in raising - and which are making good progress.

#### AN APPRECIATION

James Terence Transom, Master Gunner

22 December 1916 - 17 August 1997

Terry Transom was born in Taihape and grew up in a farming community.

He joined the Regular Force on 3 Feb 37, marching in to No 10 Wing, Army School of Instruction, Trentham, where he spent the rest of the year undergoing the rigorous basic infantry and artillery training imposed in those days. His Wing was the last to be trained in equitation as field artillery was still horse-drawn.

On completion of his recruit training Terry was posted to the Anti-Aircraft Cadre, Fort Dorset, Wellington, as a Gunner RNZA early in 1938. There he underwent further training in the driving and maintenance of the heavy FWD Leyland trucks used as gun tractors etc as well as the QF 3-inch 20 cwt AA guns, searchlight and sound-locating equipment with which the Cadre was equipped. In the handling of all this gear he soon became proficient.

On 18 November 38 during the annual RNZA Refresher Course at Waiouru a 40-year-old wooden bridge at Hihitahi collapsed and a Leyland Cub bringing a leave party back from Taihape plunged into the Hautapu stream. Three RNZA Gunners were killed while Terry and several others, one of whom later died in hospital, were badly injured. Terry made a good recovery but in the years afterwards was always reluctant to take to the road on the 18th of November!

Following the outbreak of World War 2 staff of all three Cadres at Fort Dorset were progressively transferred to the mobilization camps or to TF regiments. Terry left New Zealand with an early reinforcement seeing extensive service in Egypt and Italy with 6 LAA Regiment (1941) and 6 Field Regt (1942-45). During this period he also served two terms as an instructor with the Artillery Training Regiment, Maadi Camp. These terms were each of three months.

After the war Terry held various training and admin positions until in 1952 he was selected to attend a long staff gunnery course at the School of Anti-Aircraft Artillery, at Manorbier in Wales. After qualifying as WO2 (AIG), he was posted to the School of Artillery, Waiouru, where in 1954 he was promoted WO1(SMIG) of the AA Wing. NB: These designations were changed in 1980 to WO2(SMIG) and WO1(MG) respectively.

In 1955 he was awarded the 18-year Long Service and Good Conduct Medal. From 1957 to 1962, the year he retired, he served at Papakura in the NMD Training Battery and in 16 Field Regiment. In 1962 Terry was presented with the Silver Grenade for 25 years long and loyal service to the Regiment.



After a short time in industry he joined the clerical branch of the Naval Supply Depot, where his efficiency and willing approach to his duties won him promotion well above the average. In 1976, having reached the age of 60, he retired for the second time.

A member for over 50 years Terry rendered outstanding service to the Old Comrades Association. For most of that time he served on the Committee, being Secretary from 1976 to 1984. In that year members elected him an Honorary Life Member.

Once a Gunner, always a Gunner. Right until the end Terry took an intense interest in things military, especially the guns. He had planned to accompany a team of OCA members to the Army Museum on 25 Aug 97 to prepare guns for display, and Museum Staff had hoped his expertise would identify a number of AA predictors for them, but this was not to be.

Terry is survived by his good lady Joan, and his son Tony.

WLR

### THE GUN

Continued from Newsletter 94

BY Wally Ruffell

A number of inventors offered guns of different construction incorporating rifling of widely differing designs of which only three were eventually considered worthy of serious trial. See Fig. 80. They were pieces by Messrs Charles Lancaster (1820-78), William Armstrong (1810-1900), and Joseph Whitworth (1803-87).

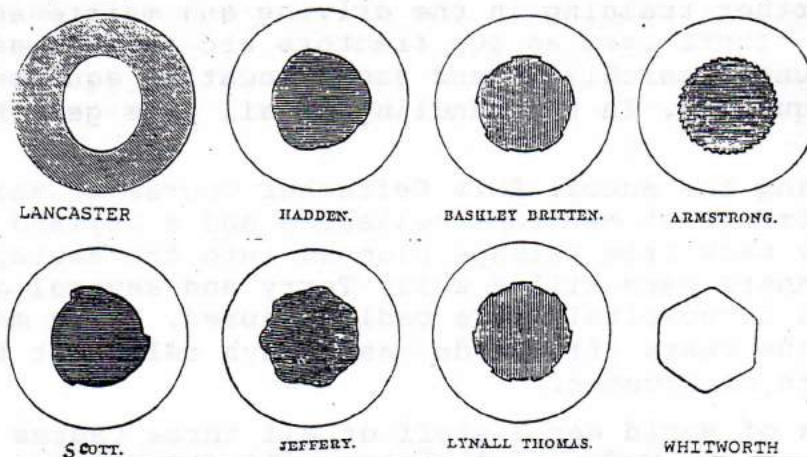


Fig. 80: Showing sections of the bores of the various guns submitted for the Board's consideration.

Projectiles and methods of rotation were many and varied.

Most guns were of cast iron, soon to be proved unsuitable for rifled ordnance.

The first to be tried was one by Lancaster, a well-known maker of sporting guns, who in 1850 patented a system of 'rifling' having a smooth bore of oval or elliptical section with a twist increasing from breech to muzzle. Elongated projectiles were shaped to fit

Of eight service cast iron 68-pr SBML siege guns 'rifled' on Lancaster's principle sent to Sebastopol during the Crimean War (1854-56), three burst. A number of new guns specially produced and 'rifled' in the same way at considerable expense also burst in trials at Shoeburyness in England. Apparently the oval projectiles could not accommodate themselves to the increasing twist of the 'rifling,' jammed in the bore, and blew the muzzles off. Modifications to both bores and projectiles were made but none proved successful.

An interesting experiment followed the bursting of one of the 68-prs at Sebastopol; artificers were directed to trim the jagged muzzle end with hammer and cold chisel, after which the gun continued to be used as a howitzer. Records indicate it performed quite well in this role!



Although Lancaster's system was not adopted for ordnance it proved successful in small arms. Carbines with his 'rifling' were later issued to the Royal Engineers and were said to have performed satisfactorily.

In December 1854 Armstrong approached the Secretary of State for War with a proposition that he make a rifled breech-loading (RBL) 3-pr gun for trial. Later bored up to 5-pr it performed with marked success both in range and accuracy. Over the next three years he went on to develop his system of construction and adapt it to guns of heavier calibre. We shall make a detailed study of one later in this paper.

In the meantime in May 1854 the Board of Ordnance, not being entirely satisfied with the performance of the Pattern 1853 calibre .577-inch Enfield rifle, had engaged Joseph Whitworth, an eminent engineer, to try and improve it. Now Whitworth knew little about small arms or ordnance, so in 1855 conducted a series of experiments from which he deduced the twist of the rifling to be too slow for the length and weight of the bullet, causing it to become unstable at the longer ranges.

To prove his point he constructed a rifle of .451-inch calibre with a bore of hexagonal section with rounded angles as in Fig. 80, firing a bullet shaped to fit. At a contest in 1857 between Enfield and Whitworth rifles the latter won by a significant margin.

So impressed were the Commander in Chief and the Master General of the Ordnance that they both urged him to try his hand at ordnance. To assist him they supplied several solid 'brass' castings of ML guns up to 24-pr for boring and rifling with his hexagonal system.

Performances exceeded all expectations. For example, the range of a SBML 24-pr at 8 degrees elevation was 2200 yards with the standard charge of 8 lbs powder, while Whitworth's gun, firing a shot of the same weight at the same elevation, achieved a range of 3500 with only 2 lbs. Indeed, so much did it exceed the anticipated range that the shot entered a house, narrowly missing a lady seated in her drawing room. What she said about Gunners I hesitate to record!

He also 'rifled' three cast iron 32-prs and a 68-pr supplied by the Government for trials with armour-piercing shot but all burst, which was not unexpected. Whitworth had already strongly advised against the use of cast iron for rifled guns.

As well as carrying out experiments with Government-supplied guns he developed a 12-pr field gun using his own system of construction to be described below.

Meanwhile, the Select Committee appointed in August 1858 to recommend a system of rifled ordnance for adoption into the services was under pressure to make a quick decision owing to the current international situation. France, who had adopted rifled ordnance in 1856, was threatening to invade England.

Now the Committee was impressed with Armstrong's guns with which they had become familiar but they had not studied Whitworth's; they had merely noted the performance of the Government guns he had rifled. Although they had promised to make a detailed study of Whitworth's system of gun construction they had not done so. Instead, in November 1858 they recommended Armstrong's system be adopted 'for special service in the field.'

To justify their failure to study Whitworth's system they made lame excuses, chief of which was that some of 'his' cast iron pieces had burst, when they well knew they were not 'his' but Government pieces. That he had advised against the rifling of cast iron guns they chose to ignore. Also, they claimed his shot ranged differently from his shell - as they still do - and that his projectiles drifted - as they



still do. Thus the Committee hardly gave Whitworth a 'fair go.'

Naturally he was rather upset. Determined to prove the superiority of his system he commenced making guns for sale to foreign powers, e.g. the Confederate States during the American Civil War. He later embarrassed the British authorities when his guns proved superior to Armstrong's in range, accuracy, and in the defeat of armour plate.

Therefore, although Whitworth's guns were not accepted for the British forces, a brief description of their construction as well as ammunition will be given. The innovations they contained justify it.

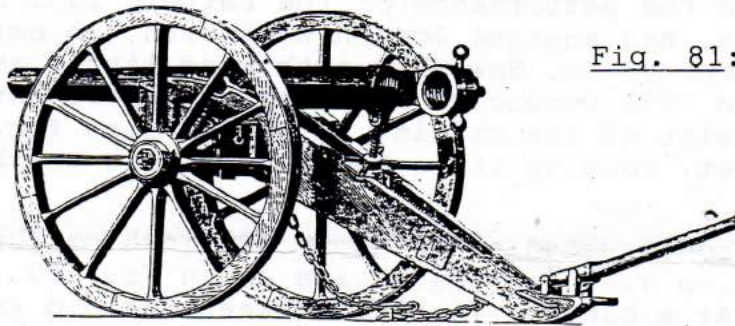


Fig. 81: Whitworth RBL/RML 12-pr field gun. Calibre: 2.75-ins.

Ordinance: The Whitworth gun was constructed on the 'built-up' principle, not by shrinking one tube over another, but by forcing one over another by

hydraulic pressure, which achieved the same result, i.e. the gun was 'pre-stressed.' The material used he called 'homogeneous iron' a form of mild steel.

On the piece the breech was externally threaded and closed by a threaded cap which swung on a carrier pivoted on the right side of the gun as shown in Fig. 81. Firing was by friction tube inserted in an axial vent in the cap.

Internally the piece was of hexagonal section (the angles of the hexagon being rounded) throughout its length, i.e. there was no chamber. The hexagon, made with a uniform twist, formed the rifling. See Fig. 82.

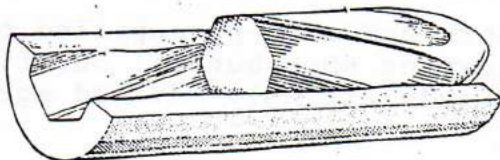


Fig. 82: Showing Whitworth's system of 'rifling,' i.e. hexagonal section with rounded angles, and standard projectile.

The gun was designed to be used either as a breech-loader or as a muzzle-loader, possibly to satisfy diehard Officers, many of whom objected to breech-loading 'on principle.' If used as a muzzle-loader the breech end was sealed by a copper disc with a central hole opposite the vent clamped in place by the breech cap.

Tangent sights as used on other ML and RBL equipments were fitted.

CARRIAGES: These resembled the current wooden field carriages for other service equipments. See Fig. 81.

AMMUNITION: There is little doubt Whitworth pioneered the system later called 'QF' for when he used the gun as a breech-loader he enclosed the propellant charge in a sheet iron cartridge case shaped to fit the hexagonal bore, thus effectively providing obturation. After firing it was extracted with a special tool. If used as a muzzle-loader the charge was enclosed in a cloth bag as with other ML guns.

Projectiles were precisely shaped to fit the bore with negligible windage; a wad in rear ensured complete sealing. Whitworth pioneered the use of streamlined shot and shell, and demonstrated the significant increase in range obtainable.

To be continued.





Incorporated

NEW ZEALAND PERMANENT FORCE OLD COMRADES ASSOCIATION

PO BOX 33 710, TAKAPUNA, AUCKLAND 1309

PROGRAMME - ANNUAL REUNION 31OCT-2 NOV 97 AT TAUPO

FRIDAY 31 OCT 97: March in; 1600 - drinks at Taupo RSA, Horomatangi St.

SATURDAY 1 NOV 97; 1000 hrs Annual General Meeting at TAUPO YACHT CLUB.

Afternoon: Free.

1800 hrs: Pre-dinner drinks at TAUPO YACHT CLUB.

1900 hrs: Reunion dinner in Yacht Club Dining Room.

Dress: Gentlemen informal, jacket and tie, lounge suit or appropriate uniform. Medals and decorations to be worn.

Ladies: semi-formal.

Wine: The Yacht Club does not permit guests (including their own members) to bring own wine, but have a comprehensive stock at club rates. The port is excepted; it will be supplied by our Association.

SUNDAY 2 NOV 97: 1000 hrs Church Parade in Spa Hotel Lounge, i.e. the historic meeting house "Tiki o te Tamamutu." Medals etc to be worn.

After Church Parade: One for the road in Suite 'A'. Afternoon free.

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REUNION REGISTRATION FORM

Please complete, detach, and return to Secretary by 15 October 97.

NAME.....I will/will not be attending reunion. Negative replies will be taken as apologies for non-attendance at AGM.

I will be accompanied by.....(include first name)

I require/do not require accommodation at the Spa for nights.....

I enclose \$... for ... persons at \$25 per head for dinner

Do NOT enclose payment for accommodation; settle direct with hotel.

Please delete sections NOT applicable. To those requiring accommodation at the Spa, I will let you know whether or not you are successful.

Transport will be arranged from Acacia Bay and Spa Hotel for evening functions and Church Parade and return as in programme. Please tick where applicable:

I require transport from Acacia Bay ...

I require transport from Spa Hotel.....

Remember, if you are unable to drive you may bring a driver/companion who is welcome to take part in reunion activities (except the AGM).

We address this advice especially to our Lady Associate members.



### ACCOMMODATION

SPA HOTEL: We make the Spa our HQ because the site was in 1867 occupied by the NZ Armed Constabulary from which sprang both the NZ Permanent Force and the NZ Police. It is therefore part of our historic heritage. The present hotel, which developed from the AC wet canteen, is one of the few licensed houses left which possesses character. The following accommodation is available:

CHALETS: Tariff \$80 double, \$60 single, additional adults \$12, children \$10. Each has a double bed on ground floor, two singles on mezzanine floor, plus a convertible couch. Full kitchen, toilet and shower facilities plus private spa pool, TV, radio, and phone. Ideal for sharing with another couple. We have booked all twelve; you book through Secretary.

SUITE 'A': Tariff \$70 for two, \$10 each additional adult. Same facilities as Chalets except no spa pool - but public hot pool handy. Has four single and one double bed but as in the past we have reserved for unattached males. Book through Secretary.

CONSTABULARY ROOMS: Tariff \$50 double, \$35 single. There are five each with a double bed, and five each with two singles. Each room has own shower, toilet, TV, refrigerator, tea and toast-making facilities. Book through Secretary.

#### OTHER ACCOMMODATION RECOMMENDED:

LAKE HOTEL: Licensed, with Cobb & Co restaurant, cnr Tongariro and Tuwharetoa Sts, Phone 07/378 6165. Ideal for members who do not wish to drive after the dinner as it is only five minutes' walk to the Yacht Club and about the same to the RSA. Tariff from \$30 single, \$45 twin or double. Make your own booking direct. NB: Above tariffs may have increased.

ACAPULCO MOTOR INN: 19 Rifle Range Rd (Box 347, Taupo), phone 07/378 717. 15 minutes' walk to Yacht Club. Tariff \$60 single, \$68 to \$88 double, \$12 each extra person. 10% discount to RSA members. Make your own booking.

ARMY MOTEL UNITS - ACACIA BAY: See instructions on page 1 of this newsletter. Make your own bookings.

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NOTE: All tariffs include GST.

See RSA Review for other motels which offer discounts to RSA members.

We have our 'one for the road' after the Church Parade in Suite 'A.' Occupants need not worry; there is plenty of room.

Any questions?

We look forward to seeing you.

*Wally Ruffell*

W.L. RUFFELL,

Hon. Secretary.

Phone 09/445 3567.