

Index

SUBJECT.

SECRET

War Diary

"J" Special Company

For: MARCH, 1917

War Diaries for 'J' Company Special Brigade Royal Engineers

10 March 1917 To 31 March 1917

ARRAS

10/03/1917

Under authority G.H.Q. circular memorandum OB/42 of 24th February 1917, reorganisation of the Special Brigade dates from 12th February 1917. This unit originally known as 'J' company, No 3 Special Battalion R.E. attached No 4 Special Battalion R.E. there became an administrative and executive unit known as 'J' Special Company (Cylinder) R.E. In practice it has been administered till now by No 4 Special Battalion R.E. from February 12th 1917. Hence a summary is now given of the state of the company, and operations since then.

Appendix 3
Appendix 1
Appendix 2

Capt J. A.
CARPENTER.

Officers: Commander: Captain J.A. CARPENTER R.E. Second-In-Command: Captain C. LAYCOCK R.E.
Section Commanders: Lt L. TAIT R.E. (Sect 42), Lt E.G. LAWFORD R.E. (Sect 41) 2/Lt G.C. ALLCHIN R.E. (Sect 44), 2/Lt V.F. FARR R.E. (Sect 45) 2/Lt R.B. SANTER (Sect 43), Supernumerary 2/Lt B.C. BEVAN R.E. Other Ranks: W.O. 1, Staff Sergeants and Sergeants 13, Corporals 41, Pioneer Sappers 173
Attached on establishment: A.S.T. M.T. 3, A.S.C. H.T. 1 Total - All Ranks on Mar 10 1917 - 240

Under the old establishment, there were eight officers and 250 other ranks Under the new establishment, there are seven officers and 218 other ranks (vide war establishment for a SPECIAL COMPANY (CYLINDER R.E.) SITUATION: The company has been and is situated in ARRAS (15 Rue Jeanne D'Arc) and since Feb 12th has been working with VII Corps and VI Corps

OPERATIONS: 1. With VII Corps (14th Divn, 43rd Bde) the maintenance of gas emplacements on 'H' Sector, S.E. of ARRAS (M.10.c.40.40 to G.35.d.35.35, later to G.35.b.80.00 NEUVILLE VITASSE TRENCH MAP 1/10,000) 2. With VI Corps (3rd, 12th, 15th Divisions) the maintenance of gas emplacements on I Sector, E. of ARRAS, to the RIVER SCARPE. 3. With VI Corps (18th Division) an operation taken over from Q Special Company R.E., viz the REID-KELLET PUSH PIPE (BORING) experiment at G.24.c.70.25 (ARRAS TRENCH MAP 1/10,000) in which 280 cylinders were connected, 40 in a group, to seven pipes pushed underground to the German wire. Details are given in Appendix 1 4. With VI Corps, on the 3rd Division front, preparations for the Installation of 900 LIVENS PROJECTORS firing special drums: Preparations for this operation were made in consultation with B.G.G.S. VIth Corps during the latter part of February 1917 Training: A training ground for the Company in the use of projectors with a range of 1300 yards has been used at SIMENCOURT: Each section having been trained the company now being again at ARRAS: The range is in square Q.4.b map 51c.

War Diaries for 'J' Company Special Brigade Royal Engineers

ARRAS	11/03/1917	The 44th Inf Bde has relieved the 45th Inf Bde in the part of I sector containing the PUSH-PIPE experiment Section 41 departed to SIMENCOURT for further training in projectors.	Capt J. A. CARPENTER.
ARRAS	12/03/1917	In the morning the billets of the Company were shelled Casualty: 1 O.R. wounded (at duty). (No. 192935 Pri WILSON J) After standing by for the push-pipe experiment the wind changed to north and the experiment could not be carried out.	Capt J. A. CARPENTER.
ARRAS	13/03/1917	Section 42 under Lt TAIT proceeded to SIMENCOURT for training relieving Lt LAWFORD with section 41 Again the company stood by for the push pipe experiment with the 44th Bde but the wind became too light changing also from S.W. to S.S.W. Instead of a zero at 1 am as originally arranged the time has been altered to an earlier hour: Depending on circumstances from 8 pm to 11 pm.	Capt J. A. CARPENTER.
ARRAS	14/03/1917	CAPT LAYCOCK proceeded to VI Corps H.Q. and arranged the following administrative Details:- Leave, Discipline ? Under CAMP COMMANDANT, VI Corps POST, 3rd DIVn F.P.O. WANQUETIN Supplies, Fuel, Ordnance 3rd DIVn WANQUETIN and WALRUS Transport, Repair, etc VI Corps SUPPLY COLUMN AVESNES-LE-COMTE Telegraphic Address, JULIA c/o 3rd division (changed by VI Corps to JINGLE c/o 3rd DIVISION Notification that our technical tools, required for operation with PROJECTORS, would be drawn from No8 R.E. Paris, SAVY was received from H.Q. SPECIAL COMPANIES R.E. THIRD ARMY. Third Army G.S. 14/20 of 11-3-1917 was received stating that our first discharge with projector would, if wind conditions permitted, be at Zero minus 48 hours 15 minutes, and that a second discharge might be made up to Zero minus 6 hours Strength on Mar 14th, 8 officers, 1 W.O., 12 Sergeants, 41 corporals, 174 men, Total 236: Attached 3 officers, 1 sgt, 3 cpls, 11 men. Section 42 continued training at SIMENCOURT.	Capt J. A. CARPENTER.

War Diaries for 'J' Company Special Brigade Royal Engineers

ARRAS	15/03/1917	B.G.G.S. VI Corps consulted re offensive operations with projectors. It was decided that our original plans would hold, ie 900 projectors should fire on three targets in FILLOY-LES-MAFFLAINES situated at points sketched in Appendix 2: Strength, same as on Mar 14th Section 43 under 2/Lt SANTER has relieved section 42 at SIMENCOURT.	Capt J. A. CARPENTER.
ARRAS	16/03/1917	Strength - same as on Mar 15th.	Capt J. A. CARPENTER.
ARRAS	17/03/1917	We have been notified that our stores (No4 RUE BEFFARA), our H.Q. (15 RUE SEANNE D,ARC) and our officers billets (No12 RUE SEANNE D,ARC) will be taken over shortly by XVIII Corps. Arrangements are being made to move The 44th Brigade has relieved the 45th Brigade in 15th Divn front The push-pipe experiment has been cancelled for the present by VI Corps but it is possible that tomorrow night we may do it if the weather is favourable. Today has given us the first west wind for six weeks Section 44 under Lt ALLCHIN has relieved Section 43 at SIMENCOURT Strength, 8 Off, 1 W.O., 12 Sergeants, 40 Corporals, 174 men, Total 235 Attached 3 Off, 1 Sergeant, 3 Corporals, 11 men, Total 18.	Capt J. A. CARPENTER.

War Diaries for 'J' Company Special Brigade Royal Engineers

ARRAS

18/03/1917

During the night 17-18, it was discovered that the enemy had retired from BEAURAINNE. The pivot of his retirement was at a point immediately south of the ARRAS-CAMBRAI main road. His new line covers TILLOY, thence south to TELEGRAPH HILL and along the northern end of what is usually called the HINDENBURG (or SIEGFRIED) line, stretching in a - NEXT ENTRY DOES NOT CONTINUE ON SAME SUBJECT Noon: Our troops are holding BEAURAINS. The H Sector is now uncovered thereby rendering the gas-emplacements no longer necessary:

O.C. Company made a reconnaissance of the I Sector (E. of ARRAS) with a view to arranging dumps and carrying for the projector operation (hereafter referred to as G 1/P): These arrangements will be submitted to VI Corps today and will appear in a future appendix (Orders for the carrying of projectors and drums) when approved.

PUSH-PIPE EXPT: The wind being W.S.W., G.O.C. 44 Brigade was warned at 3 pm and a zero fixed for 11 pm: The experiment was carried out:

REPORT ON the Discharge of Gas by the REID-KELLET push-pipe, March 18th 1917 Ref JR 212 of 19/3/1917.

PERSONNEL: At 44th Bde H.Q. Advising CAPT JA CARPENTER R.E., O.C. Spec Coy: At O.P. foot of IVORY ST: CAPT A. REID-KELLET, 6th S.W.B. CAPT C LAYCOCK R.E. 2 i/c J Sp Coy Lt MUIR I.O. 15th Divn 11 pm: PERSONNEL (Cont): in the line at dug-out (G.24.c.54.45) Lt JD BERRIDGE R.E. & Section of N Coy.

CONDITIONS: Wind 3-4 mph W. by S. Zero 11 pm: Weather clear steady dry

OBSERVATIONS Observers report that the cloud travelled well coming from the hostile wire and moving forward in a very low cloud not more than 15 ft high, and about 100 yds wide. It went into the Railway Triangle, kept together and poured into a cutting which exists near the German fourth line 11:00 pm: Zero: All silent with no excessive MG fire 11:25 pm: First SOS signal (Red rocket bursting into 3 stars) This brought no response 11:31 pm: Second SOS signal (Red rocket not bursting) 11 pm: OBSERVATIONS (Cont) About six 77 mm shells scattered near the front line 11:40 pm: Third SOS signal (Golden rockets bursting into green) 11:45 pm: Gas cloud becoming thinner 11:55 pm: Barrage of 105 and 77 mm shells on the Factory OP (600 yards behind front line) 12:20 am: Gas cloud practically stopped.

BEHAVIOUR OF ENEMY IN LINE: The enemy gave very little retaliation though as moderate bombardment of the cemetery was going on (and had been previously to the discharge) all the time.

Appendix 5
See Appendix 1

Capt J. A.
CARPENTER.

War Diaries for 'J' Company Special Brigade Royal Engineers

He put up many vary lights from behind the front line on the flanks firing most of them into the cloud and near its source It is reported by a prisoner who was observing over the parapet that the enemy put one or two light TM Bombs near the source of the cloud but this was difficult to observe from O.P.

11 pm: IN THE DUG-OUT (G24.c.54.45) Lt BERRIDGE and 10 NCOs and men of N Coy experienced some trouble with leaks. The oxygen cylinders of the SALVUS sets did not last as long as was expected, hence as one SALVUS cylinder had to be kept and used for the turning off. All the gas cylinders could not be turned on. 150 out of 280 were reported discharged Casualty: One O.R. Wounded (Gassed in Action), N Coy.

Company Movements: Section 45 under Lt FARR has relieved Section 44 at SIMENCOURT Lt SANTER has proceeded to THIRD ARMY MINE RESCUE SCHOOL to undergo a course of training in SALVUS sets with a view to training the NCOs of the company in its use

STRENGTH: 8 Officers: 1 W.O.: 12 Sergeants: 39 Corporals: 174 men: Total 234 Attached 3 Officers: 1 Sergeant: 3 Corporals: 11 men: Total 18.

ARRAS	19/03/1917	PUSH-PIPE EXPT: Lt BERRIDGE reports that there is still gas in the dug-out Noon: The disconnection of the pipe-system has been commenced 2 pm: VISITS TO STAFFS: O.C. Company arranged further carrying details with B.G.G.S. VI Corps STRENGTH: One Corporal less than on Mar 18 (to England for commission).	Appendix 5	Capt J. A. CARPENTER.
ARRAS	20/03/1917	CORRESPONDENCE: Third Army G.S. 14/30 of 18th March 1917 received (amendment toG 1/P): Third Army G.S. 14/20 of 11/3/1917 and specifics that one shot per projector only shall be fired in operation G 1/P PUSH-PIPE: The dug-out has been further cleared MOVEMENT: Lt SANTER returned from MINE RESCUE SCHOOL Section 45 still at SIMENCOURT STRENGTH: Same as for Mar 19th.		Capt J. A. CARPENTER.

War Diaries for 'J' Company Special Brigade Royal Engineers

ARRAS	21/03/1917	PUSH-PIPE: Dug out not yet clear: 10:00 am: VISITS to STAFFS: O.C. Company acting under instructions from VI Corps, visited 15th Division: Carrying schemes for G 1/P were advised and it was suggested that O.C. O Special Company should attend to discuss detail as he was responsible for the divisional arrangements. This was done: NOON: 3rd Division was then rested and arrangements made for the reserving of dug-outs for G 1/P. 5:00 pm: MOVEMENT: Sections 37, 38, 39 have arrived from H Special company under Lt C VANDERMIN R.E., Lt F WOOLNER R.E., Lt JL LIZIUS R.E. respectively: Capt REID-KELLET and 4 O.R.s of 6th S.W.B. departed: STRENGTH: 8 Officers: 1 W.O.: 12 Sgts: 38 Cpls: 174 men (J Sp Coy): Total 233 Attached: 1 Officer (B Sp Coy): 3 Cpls: 5 men (N Sp Coy): Total 9 3 Officer: 8 Sgts: 21 Cpls: 94 men (H Sp Coy): Total 126 1 Officer: 1 Sgts: 2 men (Q Sp Coy): Total 4.	Appendix 5	Capt J. A. CARPENTER.
ARRAS	22/03/1917	G 1/P: The sections have been finally appointed 41 to 45, 37, 38, 39 from right to left on the projector front MOVEMENT: 21 O.R.s of G Special Company arrived for temporary attachment Section 45 has returned from SIMENCOURT GENERAL: Bombardment of ARRAS.	Appendix 5	Capt J. A. CARPENTER.
ARRAS	23/03/1917	PUSH-PIPE: The dug-out has been cleared, cylinders disconnected, and carrying out is being arranged with 15th Division VISITS: All officers of the unit made a complete reconnaissance of the line STRENGTH: As for 22nd March.		Capt J. A. CARPENTER.
ARRAS	24/03/1917	MOVEMENT: 8 O.R. N Special Company returned to their unit: STRENGTH: 8 Officers: 1 W.O.: 12 Sgts: 38 Cpls: 174 men (J Sp Coy): Total 233 Attached: 1 Officer: 1 men (B Sp Coy): Total 2 3 Officer: 8 Sgts: 21 Cpls: 94 men (H Sp Coy): Total 126 1 Officer: 1 Sgts: 2 Cpls: 18 men (Q Sp Coy): Total 22.		Capt J. A. CARPENTER.

War Diaries for 'J' Company Special Brigade Royal Engineers

DUISANS	25/03/1917	5:30 pm: VISITS: A conference was held at 15th Div H.Q., DUISANS at 5:30 pmThere were present: B.G.G.S. VI Corps G.S.O. 1s, 3rd, 12th, 15th Divs O.C. Spec Coys R.E. Third Army O.C. J and O Special Coys 5:30 pm: The final details of carrying for G 1/P were decided CASUALTY: 1 O.R. (H Spec Coy attached J Spec Coy R.E.) WOUNDED IN ACTION STRENGTH: 8 Officers: 1 W.O.: 12 Sgts: 38 Cpls: 174 men: Total 233 Attached: 1 Officer: 1 men (B Sp Coy): Total 2 3 Officer: 8 Sgts: 21 Cpls: 93 men (H Sp Coy): Total 125 1 Officer: 1 Sergeant: 2 Cpls: 18 men (Q Sp Coy): Total 22 The billets were heavily shelled by hostile 150 mm and 77 mm artillery Under authority Q.M.G. 10/1 (Q.A.S.) of 16/3/1917, small box respirators were drawn for the unit and for those of H Special Company attached for operations on the scale of 1 per officer or O.R. + 5 % margin.	Appendix 5	Capt J. A. CARPENTER.
DUISANS ARRAS	26/03/1917	VISITS: To 3rd and 15th DIV H.Q. STRENGTH: Same as for Mar 25th.		Capt J. A. CARPENTER.

War Diaries for 'J' Company Special Brigade Royal Engineers

ARRAS	27/03/1917	PUSH-PIPE EXPT: Carrying out has been started. The accompanying orders were issued (appendix 4) 148 cylinders were removed and despatched by three lorries to BOUQUEMAISON (Spec Coy R.E. Workshops) Carrying was completed by 11 pm ORDERS & RECEIVED Copy No 10 of INSTRUCTIONS No 16 (addendum to S733), 3rd Division were received giving detail with regard to carrying in for Operation G 1/P ORDERS ISSUED SG/622 (forming Appendix 5) These are based upon and include the 3rd Division order just mentioned, with the exception of the Divisional personnel, which is to be furnished by the Pioneer Battalion and 9th Brigade or 8th Brigade. GENERAL: Again the billets were shelled. At 6 pm a 150 mm shell made a direct hit upon 26 Rue ?canne D'Arc (Billets of Section 45) CASUALTIES: KILLED IN ACTION, 2 O.R., WOUNDED IN ACTION 2 O.R., WOUNDED (at DUTY) 1 O.R. STRENGTH: 8 Officers: 1 W.O.: 12 Sgts: 38 Cpls: 170 men: Total 229 Attached: 1 Officer: 1 men (B Coy): Total 2 3 Officer: 8 Sgts: 21 Cpls: 93 men (H Coy): Total 125 1 Officer: 1 Sergeant: 2 Cpls: 18 men (Q Coy): Total 22.	Appendix 4 Appendix 5	Capt J. A. CARPENTER.
ARRAS	28/03/1917	CORRESPONDENCE: 46th Bde B821 received (orders for carrying for G 1/P), VI Corps GX 307/5/567 received (ditto) BILLETS: Warning has been received that the company H.Q., stores and mess will have to move shortly, owing to the taking over of the billets by XVIII Corps STRENGTH: 8 Officers: 1 W.O.: 12 Sergeants: 38 Cpls: 169 men: Total 228 Attached: 1 Cpls: 1 men (P Coy): Total 2 1 Officer: 1 men (B Coy): Total 2 1 Officer: 1 Sergeant: 2 Cpls: 18 men (Q Coy): Total 22 3 Officers: 8 Sergeants: 21 Cpls: 93 men (H Coy): Total 125: Grand Total 379 Projectors are being received from H.Q., Special Coys R.E. Third Army.		Capt J. A. CARPENTER.

War Diaries for 'J' Company Special Brigade Royal Engineers

ARRAS

29/03/1917

8:00 pm: PUSH-PIPE EXPT: The remaining cylinders were carried out and despatched to BOUQUEMAISON without mishap

Capt J. A.
CARPENTER.

MOVEMENT: O, Q, Z, Special Companies are now in ARRAS and a system of sharing communications is being arranged

PROJECTORS: A further 240 projectors were received from H.Q. Spec Coy making a total of 360

STRENGTH: 8 Officers: 1 W.O.: 12 Sgts: 38 Cpls: 169 men: Total 228 Attached: 1 Cpls: 1 men (P Coy): Total 2 1 Officer: 1 men (B Coy): Total 2 3 Officers: 8 Sgts: 21 Cpls: 93 men (H Coy): Total 125.

War Diaries for 'J' Company Special Brigade Royal Engineers

ARRAS

30/03/1917

INTELLIGENCERef attack made by H and J special companies on Oct 5th 1916 at NIEUPORT, the following appears in VI corps Daily Intelligence Summary No 380 issued March 29th 1917. Para 5
EXTRACT: VI corps Daily Intelligence Summary No 380 issued March 29th 1917. Para 5

Capt J. A.
CARPENTER.

RESULT OF BRITISH GAS ATTACK A full description has been received of the effects of a gas attack carried out by a company of the SPECIAL BRIGADE R.E. last October on the French front at NIEUPORT No surprise was effected because the enemy had discovered in the course of a successful raid made a few days previously that a gas attack was imminent; nor was there any particular reason at the time to suppose that any damage had been done by the gas The Operation was a normal one, and was carried out at a very small cost to ourselves, only 8 of our men being gassed and two of the French infantry - all very slightly As a result of the attack, seven hundred men of the 1st German Naval Division were buried in the Divisional Sector, apart from those gassed who were sent to OSTEND and BRUGES, many of whom died en- route and in the hospitals. It was currently estimated that 1500 gas casualties occurred in the 1st Naval Division, of whom the great majority ultimately died. The gas was so strong that the bolts of rifles could not be unlocked, and all metal articles, arms and equipment, became unserviceable and had to be handed into store: (ends) In connection with the above, the raid mentioned was made by a German guards regiment about Sept 30th, 22 French prisoners being then secured by them. On Oct 1st and Oct 2nd the front line was heavily bombarded by large T.M. Bombs, but very little damage was caused to our cylinders.

REID-KELLETT PUSH-PIPE Expt A raiding party of the 15th Division reported on Mar 24th that all the enemy dug-outs along the railway embankment, along which the gas travelled, were found to be ?
Up

OPERATION G 1/P 320 projectors were carried by 9th Inf Bde to the I 1 sector, and dug into position by the company: 580 more projectors were taken to the forward dumps

STRENGTH: 8 Officers: 1 W.O.: 12 Sgts: 58 Cpls: 169 men: Total 228 Attached: 1 Officer: 1 man (B Coy): Total 2 1 Cpls: 1 man (P Coy): Total 2 3 Officers: 8 Sgts: 21 Cpls: 93 men (H Coy): Total 125:
Grand Total: 357

War Diaries for 'J' Company Special Brigade Royal Engineers

ARRAS

31/03/1917

10 pm: OPERATION G 1/P: 320 projectors were installed. Total now in position 640The electrical apparatus arrived at midnight (31 March/1 April)

Capt J. A.
CARPENTER.

CASUALTIES: 2 O.R. WOUNDED (GAS) (enemy gas shells)

STRENGTH midnight 31 March/1 April 8 Officers: 1 W.O.: 12 Sgts: 35 Cpr: 167 men: Total 223

ATTACHED: 1 Officer: 1 man (B Coy): Total 2 3 Officers: 8 Sgts: 21 Cpr: 93 men (H Coy): Total 125

MOVEMENT: The company moved to new billets as follows H.Q.: 2 (bis) PLACE VICTOR HUGO Mess:
9 QUAI DES CASERNES

Just after removal the house containing the orderly room lately used was hit (Direct) with a 150 mm shell. J Coy had removed everything. 3 Cpls to ENGLAND for cadet ?

TRANSCRIPTION.

MARCH 1917 WAR DIARY APPENDIX 1

“J” Special Company R.E.

REID-KELLET PUSH-PIPE EXPERIMENT. Summary of facts relating to the operation.

At the end of December 1916, Captain A. REID-KELLET was sent up to ARRAS to carry out an experiment for boring tunnels through NO MAN’S LAND with a view of pushing tubes through them to the enemy’s wire. These tubes were to be connected to batteries of gas cylinders, the latter being subsequently discharged through them.

Under the care of ‘Q’ Special Company R.E., Captain KELLETT assisted by L^T BERRIDGE R.E. (“B” Special Coy R.E.) utilised a dug out at the end of a sap at G.24.c.54.45 (ARRAS TRENCH MAP 1/10000). This dug out was enlarged, and from it, with the aid of a constant water flush, seven holes were bored successfully into an average length of 200 feet. 8 other holes, which were started, were abandoned on account of striking saps or other difficulties. To the seven tubes used, seven batteries of forty cylinders each were attached. The personnel of the dug out was provided with “Salvus” breathing sets in case of a leak. “Q” company handed over the experiment to “J” Company on Feb 5th 1917. The wind limits sought were from NW to SW through W.

N.B. The experiment was subsequently carried out on March 18th 1917.

See Appendix 3.

TRANSCRIPTION.

MARCH 1917 WAR DIARY APPENDIX 2

"J" Special Company R.E.

Summary of Arrangement made for operation GI/P.

A scheme was submitted to, and approved by VI Corps at the end of February.

<u>SCHEME</u>	J Special Company with three attached sections will instal 900 projectors on the I1 Sector E.S.E. of ARRAS from (Ref ARRAS 1/10000 MAP) RIGHT G.36.a.15.15 (Nr 18 Street), LEFT G.300.c.90.30. (N INDIA LANE) Appendix 3 The subdivision of these into eight sectors will be shown in orders later Appendix 5.																
<u>TARGETS</u>	These targets will be arranged as follows:- <table><tr><th>GROUP</th><th>PROJECTORS</th><th>LOCATION (centre of group)</th><th>TARGET</th></tr><tr><td>RIGHT</td><td>(300)</td><td>G.36.a.40.40.</td><td>N.1.a.40.95.</td></tr><tr><td>CENTRE</td><td>(300)</td><td>G.36.a.60.70.</td><td>N.31.c.60.30.</td></tr><tr><td>LEFT</td><td>(300)</td><td>G.30.c.80.20.</td><td>N.31. central</td></tr></table> Range 1250 – 1300 yards. Each group is expected to scatter around the mark over an area 10% of Range in Depth by 14% of range laterally, the areas thereby produced being full of dug outs in TILLOY-LES-MAFFLAINES, and along the CAMBRAI road.	GROUP	PROJECTORS	LOCATION (centre of group)	TARGET	RIGHT	(300)	G.36.a.40.40.	N.1.a.40.95.	CENTRE	(300)	G.36.a.60.70.	N.31.c.60.30.	LEFT	(300)	G.30.c.80.20.	N.31. central
GROUP	PROJECTORS	LOCATION (centre of group)	TARGET														
RIGHT	(300)	G.36.a.40.40.	N.1.a.40.95.														
CENTRE	(300)	G.36.a.60.70.	N.31.c.60.30.														
LEFT	(300)	G.30.c.80.20.	N.31. central														
<u>FIRING</u>	Will take place simultaneously by exploders and electrical systems. Each projector fires a drum 8 inches in diameter, 21 inches in length, cylindrical, weight 31 lb empty, 61 lb full of gas. Ach projector will be of length 2’ 9”, thickness 9/32” or 11/32”, bore 8”																
<u>PLACING OF PROJECTORS</u>	As the firing will be done at maximum range, it is necessary to place the projectors all along the parados of bays and of traverses in the front line. There will be one continuous line of projectors spaced at an average distance apart of 27 inches. The arrangement necessitates the use of dug outs in the communication trenches from which batteries will be fired. A battery will have as a maximum, 25 projectors.																
<u>INTENSION</u>	The intention is to produce a concentration over the areas mentioned sufficiently strong to penetrate the enemy’s anti-gas appliances. The numbers have been chosen after calculation for a concentration of between 1 and 2 per cent. A map of the region is appended in Appendix 3.																

TRANSCRIPTION.

MARCH 1917 WAR DIARY APPENDIX 3

“J” Special Company R.E.

WAR ESTABLISHMENT OF A Special Company (Cylinder) R.E.

Detail	Personnel					Horses							
	Officers	W.O.	Sgts	Rank & File	Total	Riding	Draught	N.W.	Pack	Box Car	Motor Car	Motor Cycle	Bicycles
Captain	1				1					1			
Captain or Lieutenant	1(a)				1							1(b)	
2 nd in Command, Lieutenants or 2/LTs (section commanders)	5(c)				5								5
Company Sgt Major		1			1								
Company Qr Mt Sergeant			1		1								1
Sergeants			10		10								
Corporals				10	10								
2 nd Corporals				20	20								
Sappers & Pioneers				163	163							2	
Batmen				7	7								
Attached	7	1	11	200	219					1		3	6
Drivers G.S.C. MT				5	5								
Drivers G.S.C. HT				1	1								
	7	1	11	206	225					1		3	6

Actual Personnel of J Company

Officers	Warrant Officer	Sergeants	Corporals	Pioneers & Sappers
8	1	12	35	164

A.S.C.	HT	MT
	1	3

Transport	Lorries	Box Car	Motor Cycles	Mules	Bicycles
	1	1	2*	2	7

(* One motor cycle in addition evacuated to Base as a casualty)

LOCATION OF COMPANY AND OPERATIONS

Reference attached map copied from ARRAS TRENCH MAP V10,000

Location of Motor & Horse Transport Albion 3 ton lorry 22413 WALRUS (Map Ref ? Y40,000 K.36.d.8.6.) Water Cart E 100488 (Mark V) & ? – do – Box Car Napier 18512, Triumph M Cycles 255227, Douglas M Cycle 29222, Bicycles J1-J7 at Company Head Quarters.

- (a) 50% to be Lieutenants
- (b) With Side-car
- (c) 50% to be 2nd Lieutenants
- (d) – may be Lance-Corporals. Sappers to include 1 draughtsman & 1 fitter.

Transport

	Bicycles	Motor Cycles	Box Car	3 ton lorries	Cart Water	Drivers	Horses
<u>Company H.Q.</u>	1	3#	1			1	
For Stores & Supplies				2		4	
For water					1	1	2
<u>5 Sections</u>							
For personnel	5						
	6	3	1	2	1	6	2

1 with side car

ARRAS. 1:10,000.

APPENDIX 3.



TRANSCRIPTION.

MARCH 1917 WAR DIARY APPENDIX 4

SECRET

"J" Special Company R.E.

Orders for removal of BERRIDGE BABIES

1. On March 27th and March 28th, 280 Berridge Babies will be removed from the sap at G.24.c.55.45. 14 more being removed the night 27-28 and the balance on March 28th 29th
2. Dump will be at the N.W. corner of the cemetery on the road just S of the Railway Bridge. G.28.d.30.25.

ROUTES	In	IVORY ST
	Out	IMPOTENT AVENUE, IRISH LANE

Parties will make two complete journeys.

3. J Company will provide 4 Officers, 8 NCOs, 160 men for carrying, one Officer, 1 NCO and 10 men for the dump, one Officer, 1 sergeant and 20 men for handing over the stores at the dug out. These will be detailed as below (see para 7)

46th Inf Brigade have arranged to provide two parties of 1 Officer, 2 NCOs, 30 men each reporting to O.C. Dump at 8.30 pm and 9.0 pm respectively.

4. The Officer, sergeant and 20 men detailed for work in the dug out will proceed to the dug out at 10 am taking with them 60 poles tied in bundles by means of the ropes. They will remove 140 babies from the interior of the dug out and machine gun shelter to the entrance of the new sap and rope and pole them ready for handing out quickly to carrying parties. They will carry haversack rations (100 poles are already at the dug out)
5. All personnel connected with the carrying will wear box respirators in the ALERT position, ready for immediate use in case of accident and will carry arms. Carriers will wear shoulder pads of portions of sandbags.
6. Carrying will be arranged as follows

If a baby be empty or partially empty two men will carry it down
If full two men and one relief.

This will be arranged at the dug out by J Special Company

7. **Carrying Scheme** Mar 27

No of Party	Strength	Sect Nos	Officer	Time	Remarks
1	10 Officers, 2 NCOs, 40 men	part of 41	L ^T Lawford	8.0 pm	Report to O.C. Dump, then IVORY ST. If delay occurs in the front line warning to be sent back by connecting files who will keep distance. Connecting files will be supplied by ? parties, will be at 5 mins interval and used on the upward journey only. Each party to carry one spare pole on downward journey.
		part of 42	R.E.		
2	-do-	part of 43	2/L ^T Farr	8.15 pm	
		part of 44	R.E.		
3	1-2-30	Brigade		8.30 pm	
4	1-2-40	part of 45	L ^T	8.45 pm	
		part of 37	Vandermin		
5	1-2-30	Brigade		9.0 pm	
6	1-2-40	part of 38	2/L ^T Lizius	9.15 pm	
		part of 39			

O.C. DUMP 2nd L^T G.C. Allchin R.E. with part of 44 section

O.C. DUG OUT 2nd L^T R.B. Santer R.E. with part of 43 section

including "Salvus" men

March 28th Detail similar but L^T Tait relieves L^T E.G. Lawford and 2nd L^T Woolner relieves L^T Vandermin.

8. All ropes and poles will be carefully checked on return to Dump and brought back by last lorry. Special Instructions will be issued to O.C. Dump, O.C. Dug out and NCOs i/c transport. Unloading party of 1 NCO and 10 men at unloading point will be provided by J Special Company R.E.

J.A. Carpenter Capt R.E.

O.C. J Special Company R.E.

26th March 1917

MARCH 1917 WAR DIARY APPENDIX 5

SECRET – NOT TO BE TAKEN IN THE TRENCHES

“J” Special Company R.E.

Orders for the Carrying of Projectors and Drums

Ice St - INDIA LANE

Reference ARRAS TRENCH MAP 1/10,000

GENERAL SCHEME

- 1 The day will be named A, B, C, D, E ... V.W.
- 2 Day A Checking and preparation of stores (J Spec Coy R.E.)

Night	AB	Carrying of	320	projectors	
“	BC	“	320	“	
“	CD	“	260	“	by Infantry Parties
“	VW	“	900	“	

All nights Loading, Unloading, Guiding
Receiving of stores in the line (by J Spec Coy R.E.)

Early morning B Digging and laying of 320 projectors
C Digging and laying of 320 projectors
D Digging and laying of 260 projectors

Night DE Carrying of Exploders, Testing Boxes, Cable
Charge blocks and all technical stores to ?
Testing Dug Outs
EV Ditto

Day V Laying out of electrical system and charge blocks

Evening V Laying out of electrical system and charge blocks
- 3 Projectors will be carried to eight sectors of trench as in Part II. They will be received by J Special Company R.E. and stored in the front trench until dug in.
- 4 Drums will be carried to the same sectors and loaded straight into projectors by J Special Company R.E.
- 5 Dumps and detail in Part II
- 6 Carrying parties are of sufficient strength to allow for two men to carry a projector (a 5% margin being allowed) and for one man to carry a drum (a 5% margin being allowed)
- 7 All poles and slings will be returned to dumps and loaded on the last lorry if possible or stacked in the cellar at Dump B.

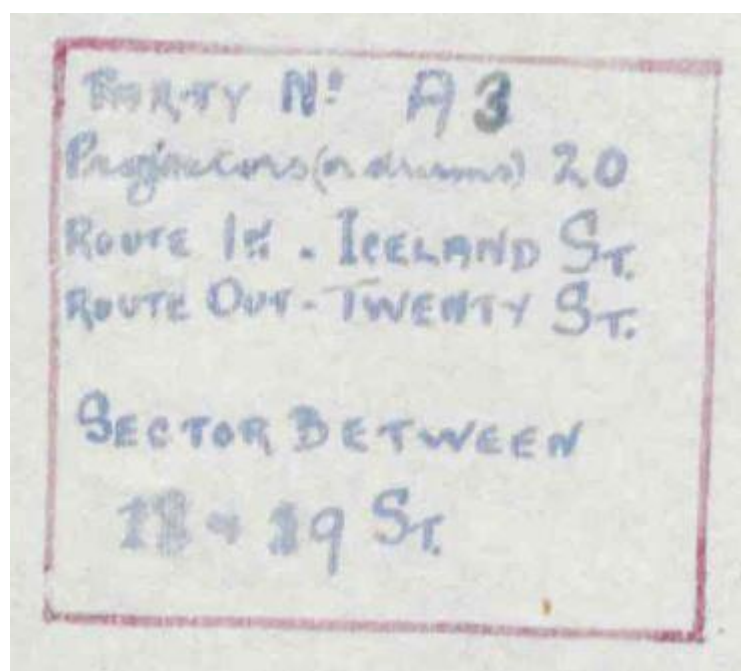
DETAIL

1	<u>Dumps</u>	RUE BEFFARA ARRAS		
	A	G.29.c.45.30	Near entrance to	Iceland St
	B	G.29.c.75.80		Imperial St

2 Sectors of the line

From Dump A	S1	IceSt to I51/5 (one bay S of 19 St)	Projectors	125
	S2	I52/5 to I52/5 (S of 20St)	"	125
	S3	I52/5 to I53/4 (just N of 20 St)	"	125
From Dump B	S4	I53/4 to Iodine St	"	125
	S5	Iodine St to I54/6 (just N of Iolanthe St)	"	100
	S6	I54/6 to Imperial St	"	100
	S7	Imperial St to I56/1 (N of Tunnel or Irrawaddy St)	"	100
	S8	I56/8 to India Lane	"	100

- 3 Carrying parties will be finished as shown in the attached tables
Each party will do two trips each night
The parties will be numbered A1 to A3 and B1 to B5 according to the dump
from which they work
A check will be given to each Officer and man of the type here shown.



These checks will be shown to the representative of J Special Company R.E. meeting the parties in the front line who will then guide them to their correct sectors.

O.C. Sector will dispose the projectors along the front of his sector ready for installation in the early morning (NOTE Sector S3 must be unloaded South of 20 St). All poles and slings will be handed back to carrying parties when the projectors have been received.

SILENCE must be maintained.

A Carrying of Projectors

Personnel:- (a) J Special Company R.E.

RUE BEFFARA Loading party 1 Officer, 2 NCOs, 20 men

Guides for lorries (NCOs L/R lorries) 6 NCOs

DUMP A Unloading party & checkers 2 NCOs, 12 men

DUMP B Unloading party & checkers 2 NCOs, 12 men

In line:-Guides at junction C.T.- Fire trench 8 men

In line:-Receiving Fire trench 8 Officers

2 NCOs men detailed by O.C. Sectors

(b) Infantry arranged by 3rd Division

As in the subjoined tables A, B, C, D.

B Carrying of Drums

All ranks will wear box respirators in the Gas **ALERT** position

NIGHT VW Personnel:- (a) J Special Company R.E.

RUE BEFFARA Loading party will not be required

NCOs L/R Lorries 10 NCOs

DUMP A

DUMP B

(b) Infantry According to attached tables

There will be no poles and slings

Transport

6 lorries will bring projectors to the dumps after loading in ARRAS. NCOs L/R Unloading parties and L/R Lorries will be responsible for seeing that the following number are delivered:-

Nights	AB	Dump A	120 projectors	Maximum load 60 projectors per lorry
	BC	Dump B	200 projectors	
	CD	Dump A	135 projectors	
		Dump B	125 projectors	

The projectors will be loaded on lorries already roped & poled

Nights	VW	Dump A	375	Load 100-200 drums per lorry
		Dump B	525	

O.C. Loading Party will be responsible for detailing duties to NCOs L/R lorries for projectors and the same.

Officers will detail the duties of NCOs L/R lorries for drums

After all unloading is finished, lorries will report to J Special Company R.E. H.Q.

Lorry Route

UP:- Bridge over Railway N of Station, Rue-de-CAMBRAI

DOWN:- RUE ST QUENTIN and Bridge over Railway S of Station

6 CARRYING OF TECHNICAL STORES

Nights DE, EV. All sections will take up their technical stores, and store under section arrangements in their dug outs allotted as in the sketch. All stores must be well protected against damp. The same on roads as in the carrying parties should be used. All charge blocks will be prepared according to special instructions before being carried up.

Sections 41, 42, 43 will use ICELAND ST in 20 St out. The remainder will use IMPERIAL ST in, and 20 St (or INDIA LANE in case Section 38, 39) as Out trench.

A guard will be left over all stores left in the trenches by each section. Parties to enter at 10 minute intervals just as for carrying parties in tables attached.

7 DIGGING AND LAYING

All sections will, after the receipt of all projectors on each night, dig their positions as far as possible during the dark hours and finish the laying by daylight. Not more than 20 men in each section will be in the line at day break and all precautions for invisibility must be taken. Sandbags for masking projectors should be “?” before being taken up.

Sections will be in position in the line by 9.30 pm each night (N.B. An infantry relief on 31 March will be complete by 9 pm)

8 LINE LAYING AND LOADING

The laying of the electrical system will be done by daylight on day V. All projectors will be charged and lines laid and tested by 10 pm night VW. The drums will be received and loaded direct into the projectors. Extreme care must be taken.

- 1 to withdraw the safety pin
- 2 to unscrew and salve the handle
- 3 to provide safety fuse and 5 oz charges for firing off drums undischarged at zero

Lines must be kept tested throughout the night VW every 10 or 15 minutes.

9 FIRING

The targets will be:-	Right	300 projectors	N1.a.40.95.
	Centre	300 projectors	N31.c.60.30.
	Left	300 projectors	N31.c.central

Firing will take place at a zero on Day W to be notified layer. All sections will detail personnel to inspect projectors after firing. If an undischarged drum is found it must be fired by safety fuse & as soon as possible. When this has been done, shelter must be taken and the electrical apparatus brought down (using the tunnel if necessary) as far as possible, the balance being stored carefully in a safe spot underground. Exploders and testing boxes must be brought back.

Only the personnel required for the actual operation will remain in the trenches after one hour before zero.

10 COMMUNICATIONS

Synchronisation of watches will be carried out and communications arranged under orders to be notified later.

27th March 1917 Attached Tables A, B, C, D, E.

J.A. Carpenter Capt R.E.
O.C. J Special Company R.E.

Copies to VI Corps
3rd Division
C.S.C. R.E. Third Army

Party No	Strength Night AB, BC.	Strength Night C,D.	Dump	Time 1 st trip each night	In	Out	No of projectors Nights AB, BC.		No of projectors Night C,D.		Grand Total Projectors all nights	Sector
							1 st trip	2 nd trip	1 st trip	2 nd trip		
A1	1 Officer 2 NCOs 42 men	1 Officer 2 NCOs 48 men	A	10 pm	Iceland St	Twenty St	20	20	23	22	125	S3 Between 19 St & 20 St
A2	-do-	-do-	A	10.10 pm	-do-	-do-	20	20	23	22	125	S2 Either side 19 Street
A3	-do-	-do-	A	10.20 pm	-do-	-do-	20	20	23	22	125	S1 Between 18 St & 19 St
B1	-do-	-do-	B	10 pm	Imperial St	Twenty St	20	20	23	22	125	S4 Between Iodine St & 20 St
B2	-do-	1 Officer 2 NCOs 21 men	B	10.10 pm	-do-	-do-	20	20	10	10	100	S5 Between Iodine St & Iolanthe St
B3	-do-	-do-	B	10.20 pm	-do-	-do-	20	20	10	10	100	S6 Between Imperial St & Iolanthe St
B4	-do-	-do-	B	10.30 pm	-do-	India Lane	20	20	10	10	100	S8 Between Cambrai Rd & India Lane
B5	-do-	-do-	B	10.40 pm	-do-	-do-	20	20	10	10	100	S7 Between Imperial St and Cambrai Rd
						TOTAL	160	160	132	128	900	

Party No	Strength	Dump	Time 1 st trip	In	Out	No of Drums 1 st trip	No of Drums 2 nd trip	Total Drums	Sector
A1	1 Officer 2 NCOs 42 men	A	10 pm	Iceland St	Twenty St	63	62	125	S3 Between 19 St & 20 St
A2	-do-	A	10.10 pm	-do-	-do-	63	62	125	S2 Either side 19 Street
A3	-do-	A	10.20 pm	-do-	-do-	63	62	125	S1 Between 18 St & 19 St
B1	-do-	B	10 pm	Imperial St	Twenty St	63	62	125	S4 Between Iodine St & 20 St
B2	-do-	B	10.10 pm	-do-	-do-	50	50	100	S5 Between Iodine St & Iolanthe St
B3	-do-	B	10.20 pm	-do-	-do-	50	50	100	S6 Between Imperial St & Iolanthe St
B4	-do-	B	10.30 pm	-do-	India Lane	50	56	100	S8 Between Cambrai Rd & India Lane
B5	-do-	B	10.40 pm	-do-	-do-	50	30	100	S7 Between Imperial St and Cambrai Rd
					TOTAL	452	448	900	

TABLE E

SECTORS	PROTECTORS
S8	2 nd LT. J.L. LIZIUS R.E. SECT ^N 39 100
S7	2 nd LT. F.T. WOOLNER R.E. SECT ^N 38 100
S6	LT. C. VANDERMIN R.E. SECT ^N 37 100
S5	2 nd LT. V.F. FARR R.E. SECT ^N 45 100
S4	2 nd LT. G.L. ALLSHIN R.E. SECT ^N 44 125
S3	2 nd LT. R.B. SANTER R.E. SECT ^N 43 125
S2	LT. L. TAIT R.E. SECT ^N 42 125
S1	LT. E.G. LAWFORD R.E. SECT ^N 41 125

(f) - firing
(s) - stores

Appendix 5-