

AWM4
**Australian Imperial Force unit war diaries,
1914-18 War**

Engineers

Item number: 14/36/5

Title: 1st Field Squadron, Australian
Engineers

October 1916



AWM4-14/36/5

WAR DIARY

Army Form C. 2118.

Instructions regarding War Diaries and Intelligence Summaries are contained in F. S. Regs., Part II. and the Staff Manual respectively. Title pages will be prepared in manuscript.

or
INTELLIGENCE SUMMARY.

1st Field Squadron, A.E.

(Erase heading not required.)

| Place | Date | Hour | Summary of Events and Information | Remarks and references to Appendices |
|---|--|------|---|--|
| ABD | 22/8/16 to 19/10/16. 20/10/16 to 25/11/16 | | <p>HEADQUARTERS - at ROMANI carrying out Miscellaneous works, testing water supply equipment, surveying scheme for water supply main ANZAC Mounted Division, designs for Racks and Carriers. Pack Saddles moved to ABD on 19/10/16, making models of Rack and Carriers for Pack Saddles (Pack Horse Transport) for carrying Spear Points, Pumps and water supply equipment as per the Photographs. Designed new Driving Cap for 2½ inch Spear Point. made levers for use with chain in place of chain tongs for Piping. made Machine Gun Carriers for 2nd Light Horse Brigade Machine Gun Squadron, as per standard design. made 150 Canvas Stretchers for Field Ambulance. "ANZAC" Mounted Division. made Timber Reels for 1st Light Horse Brigade Signal Troop. " 2 - 42 feet Aerial Poles for Wireless Section. Sig. Squad. ANZAC Mounted Division. ANZAC Mounted Division.</p> | <p>Survey for Water Scheme. Racks and Carriers for Pack Saddles Pack Transport.</p> <p>Machine Gun Carrier Canvas Stretchers Field Ambce: as per Sketch.</p> |
| <p>(The original of above written on the same sheet as entries for November, and filed with volume for that month).</p> | | | | |

October 11

WAR DIARY

Army Form C. 2118.

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INTELLIGENCE SUMMARY.

1st Field Squadron. A.E.,

(Erase heading not required.)

| Place | Date | Hour | Summary of Events and Information | Remarks and references to Appendices |
|---------|-----------------------------|------|---|--|
| ROMANI. | 1/10/16 to 5/11/16. | | <p>"A" Troop - Preparing Water Supply for 1st Light Horse Brigade stationed at KANTARA Water drawn from Sweet-Water Canal and Well sunk for washing purpose. xxx Erecting Cook Houses and shelters and miscellaneous works.</p> | Troop stationed at KANTARA from 1st Oct. to 5th Nov. |
| | 30/9/16. to 24/11/16. | | <p>"B" Troop - Left HASSANIYA and treked to ROMANI preparing water supply for 2nd Light Horse Brigade. "B" Troop - left ROMANI 2/10/16 and treked to Hill 70 and DUEIDAR prepared water supply on trek, and developed water supply, erected Cook Houses, Shelters, and Miscellaneous work for 2nd Light Horse Brigade.</p> | "B" Troop on trek. Developing Water Supply. |

(The original of above written on same sheet as entries for November, and filed with volume for that month).

October 17th

WAR DIARY

Army Form C. 2118.

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INTELLIGENCE SUMMARY.

1st Field Squadron, A.E.

(Erase heading not required.)

| Place | Date | Hour | Summary of Events and Information | Remarks and references to Appendices |
|---|--|------|---|--------------------------------------|
| ROMANI.. | 30/9/16 to 10 10/10/16. | | "C" Troop - at AMARA preparing and developing water supply for 3rd Light Horse Brigade. | |
| | 11/10/16 to 23/10/16. | | "C" Troop - left AMARA for EL-GE'EILA preparing CAMP SITE and developing water supply for 3rd Light Horse Brigade. | |
| | 24/10/16 to 23/11/16. | | "C" Troop - left EL-GE'EILA on trek for ROMANI with 3rd Light Horse Brigade, preparing water supply on trek and at ET-MAIER. | |
| | 1/10/16 to 8/10/16. | | "D" Troop - with New Zealand Mounted Rifle Brigade at ROMANI preparing water supply and erecting Cook Houses, Shelters and Miscellaneous works for Brigade. | |
| (The original of the above is written on the same sheet as entries for November, and filed with volume for that month). | | | | |

WAR DIARY

Army Form C. 2118.

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or
INTELLIGENCE SUMMARY.

(Erase heading not required.)

1916

| Place | Date | Hour | Summary of Events and Information | Remarks and references to Appendices |
|-------|----------------------------------|------|--|--------------------------------------|
| ABD | 9 ¹⁰ / ₁₆ | | "D" Troop - left ROMANI by rail for BIR-EL-ABD to prepare camp and | |
| | to | | erect Huts for Divisional Headquarters - | |
| | 18 ¹⁰ / ₁₆ | | ANZAC Mounted Division | |
| | 19 ¹⁰ / ₁₆ | | "D" Troop - returned to ROMANI from ABD, remained at ROMANI | |
| | 22 ¹⁰ / ₁₆ | | until 22 ¹⁰ / ₁₆ | |
| | 23 ¹⁰ / ₁₆ | | "D" Troop - left ROMANI and treked to ABD, watered New Zealand Mounted | |
| | 24 ¹⁰ / ₁₆ | | Rifle Brigade at AFEIN and Biv el ABD. | |
| | 25 ¹⁰ / ₁₆ | | "D" Troop - treked from ABD to GE'EILA and prepared water supply | |
| | to | | for Brigade | |
| | 30 ¹⁰ / ₁₆ | | "D" Troop - developing water supply at MOSEIFIG, MAZAR, | |
| | 1 ¹⁰ / ₁₆ | | GERERAT and HILL, 157. | |
| | to | | "D" Troop - water developing | |
| | 11 ¹⁰ / ₁₆ | | | |
| | 12 ¹⁰ / ₁₆ | | "D" Troop - treked to MAZAR with New Zealand Mounted Rifle Brigade | |
| | to | | prepared water supply for Brigade and further developing | |
| | 30 ¹⁰ / ₁₆ | | for water at MUSTAGIDDA, KASSEIBA, HILL, 113. | |
| | | | SALMA, ARNUSSI and ZOABATIA | |

J.H.A.

October

WAR DIARY

Army Form C. 2118.

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INTELLIGENCE SUMMARY.

1st Field Squadron, A. E.

(Erase heading not required.)

| Place | Date | Hour | Summary of Events and Information | Remarks and references to Appendices |
|-------|------------------------------|------|---|--------------------------------------|
| ABD | 27/10/16. to 25/11/16. | | <p>7th Field Troop R.E., stationed at HASSANIYA - providing and developing water supply for 5th Mounted Brigade at BAYUD, MAGEIBRA, Hod -WILLEGHA, HOD-UM-WEIH-EL-GAMAL, SALMANA, HOD-EL-HOMOSSIA and BATAR. Making sledge for Field Ambulance - 5th Mounted Brigade, and made to carry G.S. Stretcher weight without stretcher = 55 lbs.</p> <p>(The original of the above is written on the same sheet as entries for November, and will found with the volume for that month).</p> | |

Remarks re "Water Supply material" for Confidential Diary —
 to be attached to Sheet of Photographs and Drawings, showing
 Special Racks and Carriers made by 1st Field Squadron, A.N.Z. Mth Div.

I put up herewith a report which gives the results of my recent experiments and experiences in dealing with the problem of Water Supply in "Sinai Peninsula." — I commenced in June sinking "Well Sets" 4' x 4' x 4'-6" made of corrugated iron and timber framing, for watering the mounted Brigades these "Well Sets" were prepared in Camp and tied up in bundles carried on Camels to required site and there "knocked together and sunk." — I soon found that with very little extra trouble we could carry ^{and sink} similar "well sets" but 6' x 6' x 6' which gave us more than double the water area, so we used this "action" from that time on until early in September: In the meantime I had been experimenting with a 2½" diameter "Spear Point" made by a firm in Cairo (and paid for by 5th Reg. A.L.H. privately) this is similar in construction to the lower portion of the Service 1¼" Norton Lube Well Set. except that we got the holes in metal pipe covered first with a fine brass gauze and then a covering of perforated brass sheet, over that—

I had a special "double Brass Coupling" made with a Gas-thread at one end, to connect to the Spear Point; and a L.C.C. thread at other end to enable any G.S. Lift and Force Pump hose to connect up with it— It proved so satisfactory that I asked the C.E. N^o. 3. Section to have a quantity of them made so that I could water the "Anzac Mounted Division" without

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carrying any more "Well Sets" on Camels. - We are now doing all the watering of the Division by means of these Spear Points and have proved so successful that I have "cut out" all the "Well Sets" from our "Water Supply material" together with their Camels etc and we now only carry 12 "Well Sets" by Rail in case of emergency. - these remain at my Head Quarters with D.S.Q. whenever it happens to be, and are available at any time if required. -

I have since had a special "Driving Cap" made for sinking these 2 1/2" Spear Points, and their extension pieces; and it is used with the ordinary Norton Lube "pulley bar and monkey", or if these are not available, it can be used with a 10 or 12 lb hammer and a special "Spoon" we have designed and made for the purpose (see drawings). but each Field Troop carries a Norton Lube Well Set and the 10 lb Hammer & Spoon are only necessary when a Regiment or Squadron go away on detached duties, and sink a "Spear Point" for themselves.

Our ordinary procedure is to drive the "Spear Point" into the bottom of an existing well if there is one. (and in many places we have come across these wells made by the "Turks" during their advance upon Ramani in August last.) if there is not a well, we dig a hole until we come to moist sand if possible, and then insert the "Spear Point" and drive it, and "rope" around the top of same with sand-bags. -

In ordinary wells, of our own, or Turkish construction, we can as a rule pump them dry in anything from 20 minutes

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to 45 minutes depending on the locality - But a Spear Point driven down in the bottom of any of these wells has in all cases given us a continuous flow of water, the most remarkable case so far we have encountered was at "GERERAT" (on E) Arish map $\frac{1}{125000}$) where we pumped the Turkish well dry in 15 minutes, then inserted a Spear Point and one extension piece and pumped from a depth of 24 feet a continuous stream of water into Cavalas Reservoirs, from 0.800 until 16.00 without ceasing, and the water was still coming strong. This is the greatest depth at which we have yet had to pump, and an ordinary G.S. Lift Force Pump was used. The average depth at which we find water from Romani Eastwards is about 9 feet.

Having proved the utility of the "Spear Point" method of producing the water, we then made (in our Camp) a set of "Racks and Carriers" for carrying on Pack Horses all our water supply material. (see sheet of drawings) as I found during the fighting at "Romani - Katia - Abd" during August, and later at "Mazar" in September, we could not keep up with the Mounted Brigades with our water supply material when carried on Camels, as they were much too slow: my scheme now provides for all water supply material to be carried on Pack Horses, each Field Troop having 10 of these - 5 of which go forward with the advance troops and have the water prepared by the time the Brigade arrives in Camp - the other 5 Pack Horses pick up remainder

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of water supply gear, as old camp and tracks with the Rear Guard when watering is complete, so that all the Pumps etc are travelling at same rate as the Mounted Troops - this method I may say is working with excellent results.

In extracting the "Spear Point" and extensive pieces from the sand we - reverse the Pumping operation - and Pump water from the trough down into the Spear - which forces the sand away and facilitates greatly the extraction of same -

Some of the advantages of the "Spear Points" as compared with sinking "Well Sets" are as follow.

- ① Saving of Time - Money - Labour - Camel Transport.
- ② Pace of movement.
- ③ "Spear Points" can be pulled up and used again, whereas the Well Sets are left in the ground in most cases.
- ④ "Spear Points" can be allotted and easily carried by Squadron or Regiment gangs on detached duty.
- ⑤ "Open wells" are liable to be contaminated, whereas Spear Points are not.
- ⑥ "Spear Points" only weigh a fractional part of the "Well Sets".

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(7) The expense in regard to S. Pumps is only a "First Cost" as they are used again - the Timber Iron of Well Sets is a constant outlay - From June to September, the Anzac Mounted Division alone, used Corrugated Iron for Well Sets to the value of over £500, not mentioning timber framing or time in constructing -

I also put up a sheet of drawings showing what we find to be the Wearing Parts of G.S. Lift-Force Pumps and also of Worthington Pumps in the case of the latter the metal used for levers handles and Pins or Spindles is much too soft and wears out very quickly -

As I am using my draught horses (which under ordinary conditions would draw my Tool Carts etc) for carrying the water supply material, the only extras required for each Field Troop is Pack Saddles and the necessary complement of the "Racks and Carriage" - I have left the set of models of these with D.O.W. Curro who has since supplied us with requisite number for the Division

J.H. Alexander. Major R.E.
of C.R.C. Anzac Mounted Division

"Anzac Mounted Division" comprises

- 3. A.L.H. Brigades
- 1 N.Z.M.R. Brigade
- 5th Mounted Brigade (Yeomanry)
- Imperial Camel Corps.

Nov: 1916-

(The original of this report is filed with volume for November)

Photographs Illustrating the
WATER SUPPLY MATERIAL

and special "Racks" and "Carriers"
for use on "Horse Pack Saddles"
being successfully used by the
Anzac Mounted Division
Sinn Ponnasulu

October 1916
J. H. Alexander, Major R.E.
at C.R.C. A. & N. Co. Mounted Division.

Photo No

1. Rack to carry one Spear Point 2 1/2 and one Extension piece 2 1/2 ft long.
2. "Carrier" for G.S. Lift and Force Pump, the handle of the Pump lock the Pump on to Carrier.
3. "Carrier" for Worthington Pump, the lower handle of which lock the Pump into the Carrier.
4. "Carrier" for two lengths of armoured hose for G.S. Pump or Worthington's.
5. "Carrier" for 600 Gallon Canvas Reservoir or 2,500 Gallon Canvas Reservoir.
6. G.S. Lift and Force Pump and Worthington Pump attached to Spear Point by [redacted]

Crass Hoists also various fittings by them, also

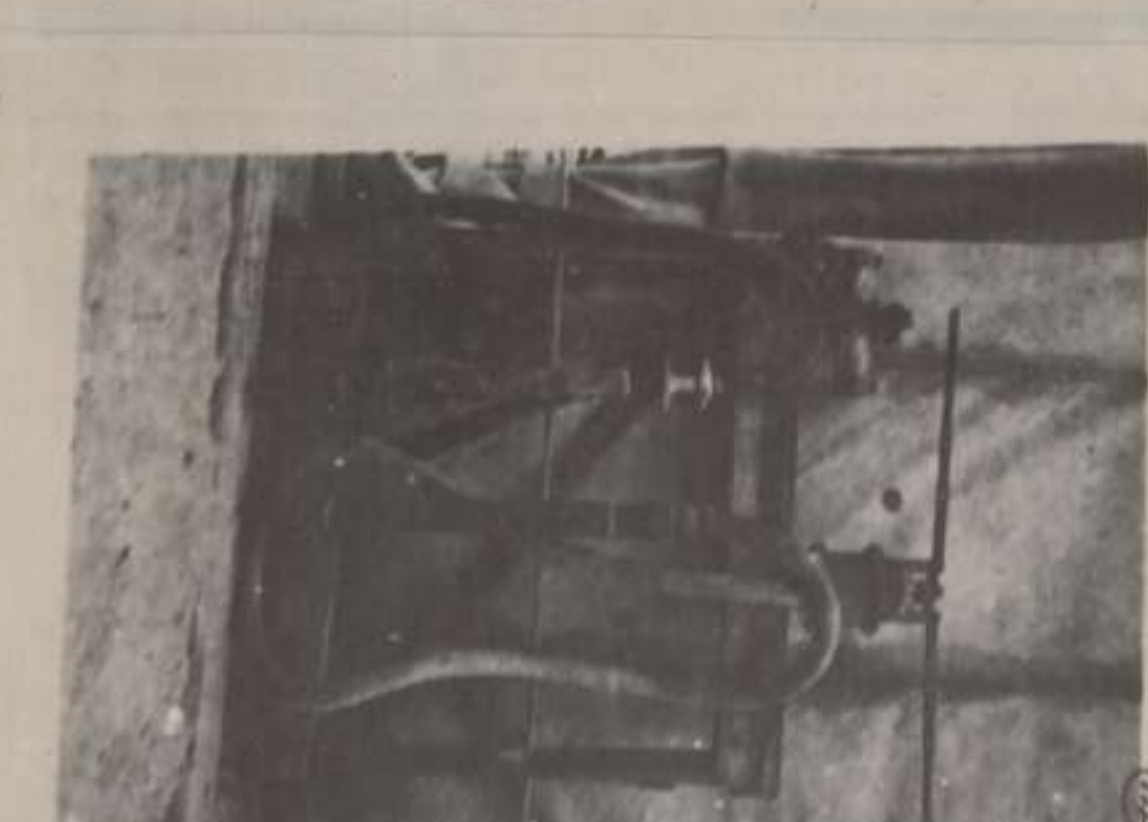
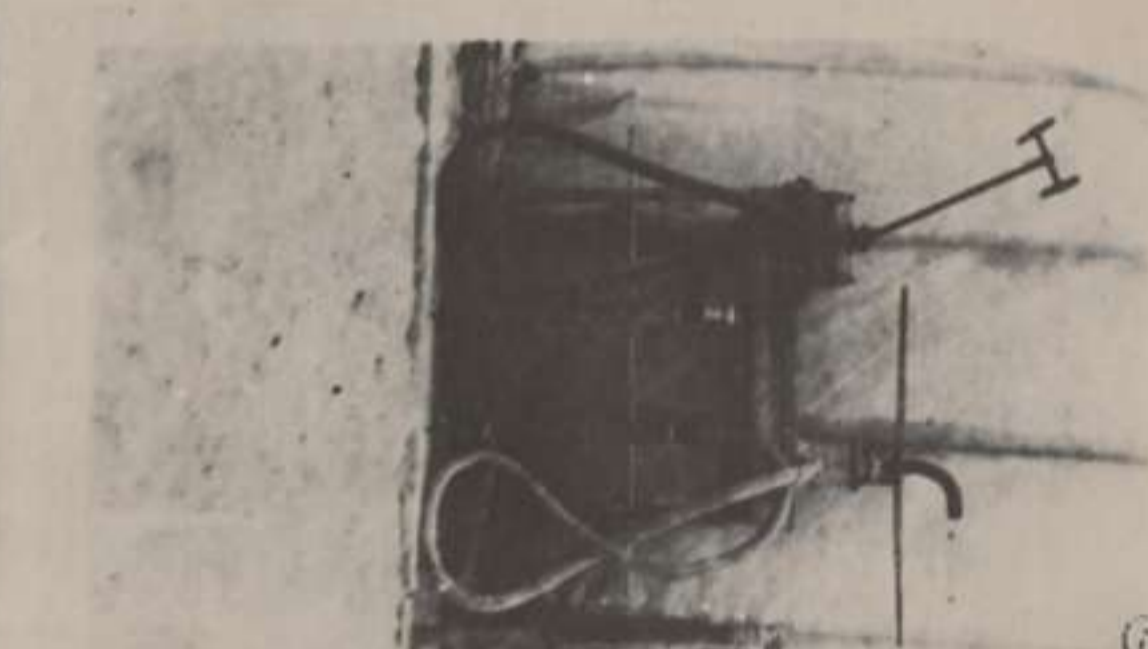
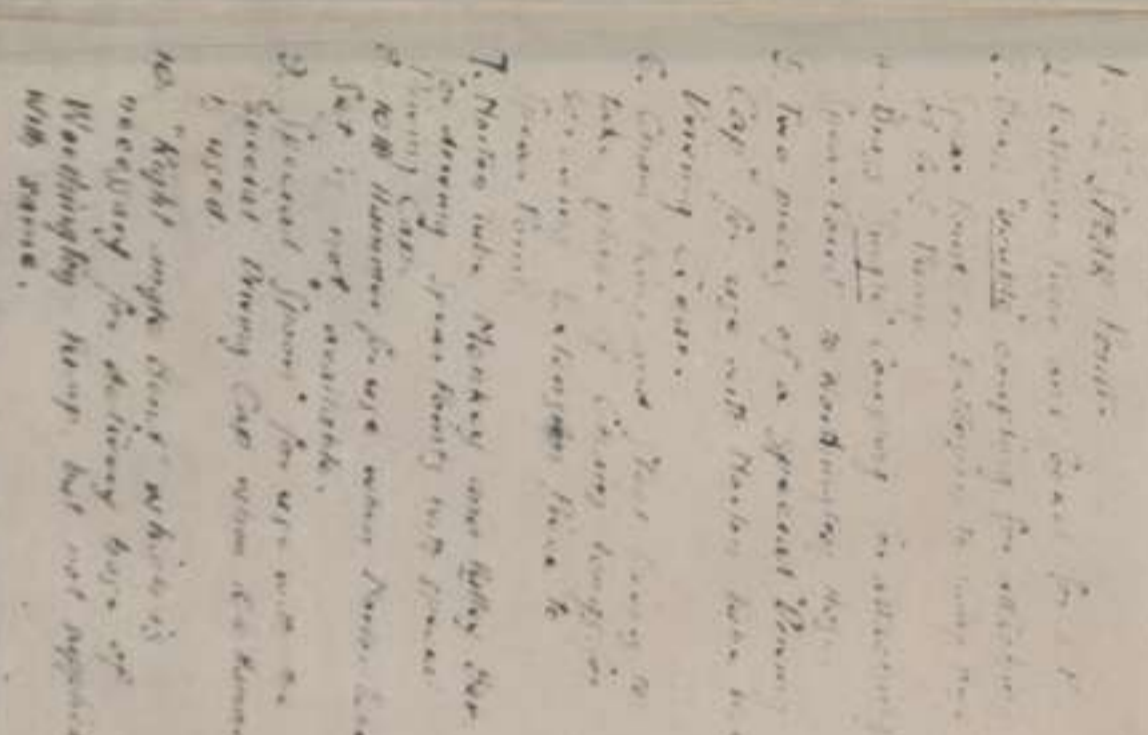
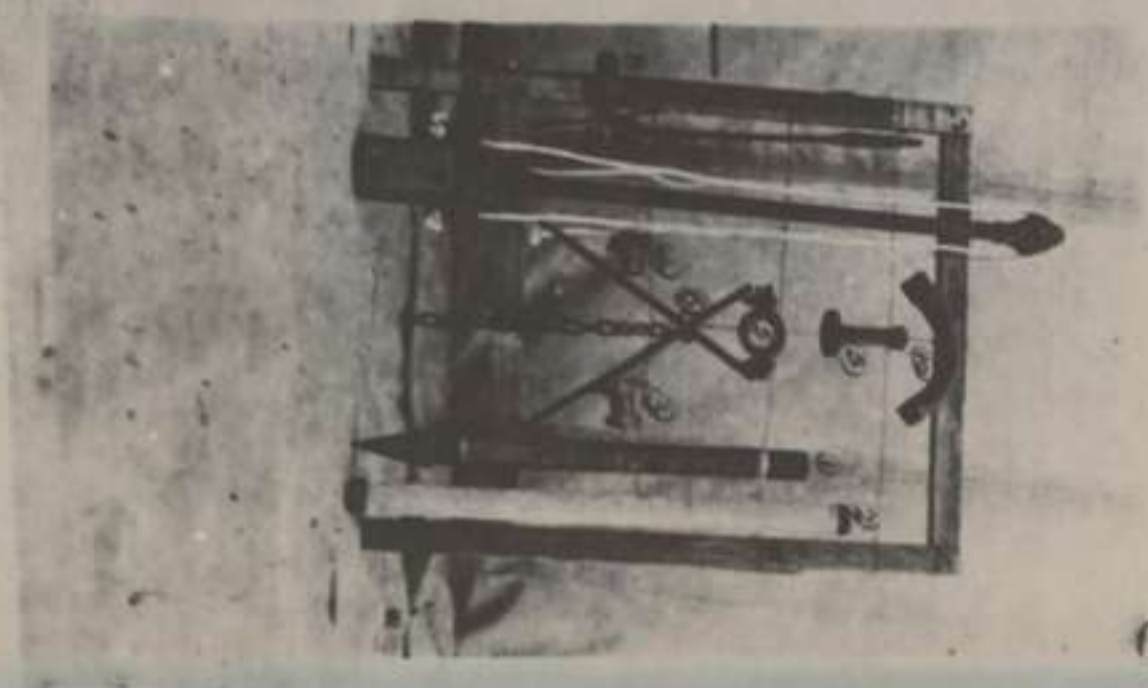
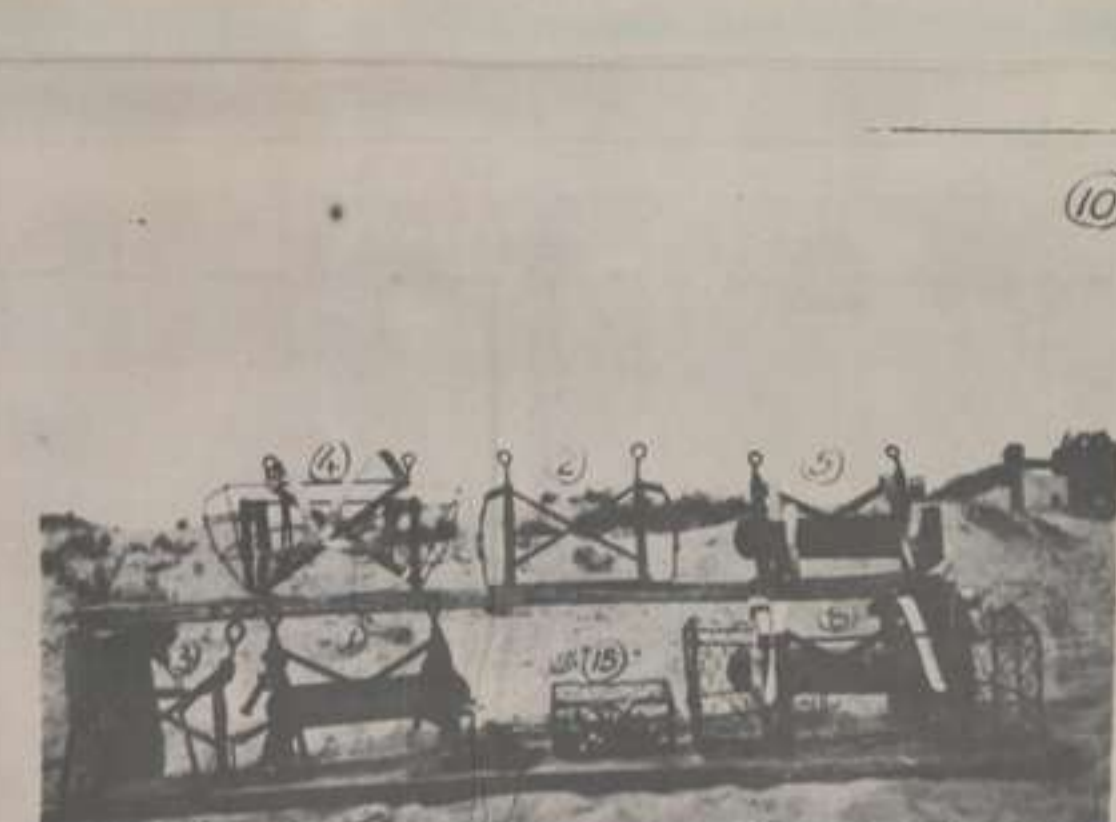
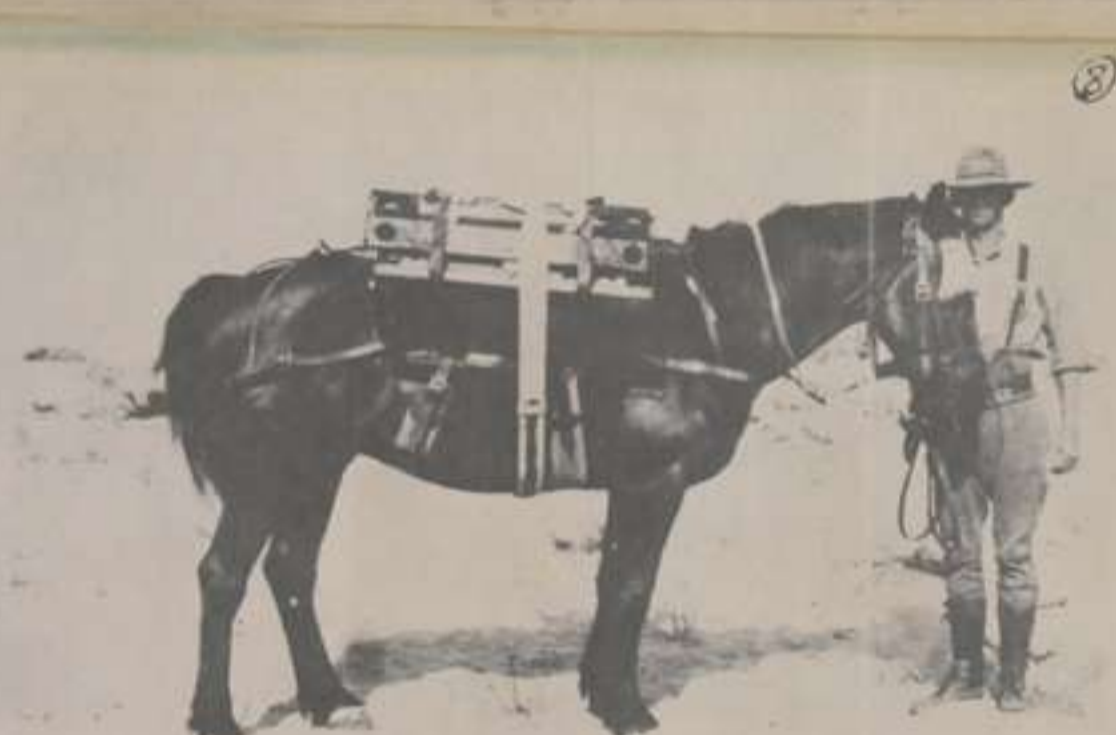
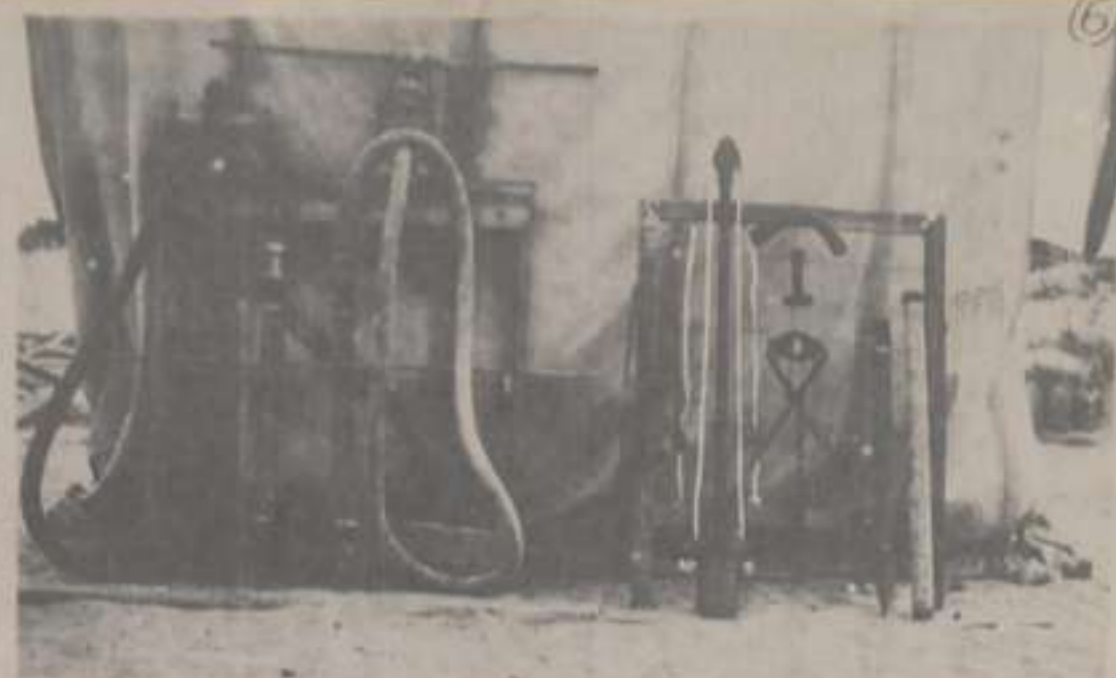
7. Two Complete Well sets "C.C.C.A.C." being carried on these Camels.
8. "Carrier" for Trough Standards (with harness nothing)
9. Photo taken "Kalia" during well sinking operations when larks drove us back and this Camel carried these two well sets back for 12 miles successfully where we sunk it.
10. The set of metal "Rack and Carrier" made by Anzac M. Field Squadron in camp.
11. Horse carrying G.S. Pump and set of Trough Standards.
12. Spear Point - Extension Piece, Brass Couplings, driving Gear etc.
13. G.S. Lift and Force Pump and a Worthington Pump with the "H.A.C. Pumps" attached.
14. Another view of Spear Point connected to G.S. Lift and Force Pump and Worthington Pump.

H.B.

Under ordinary conditions each Pack Horse would carry a pair of Carriers - for 2 Pumps or 2 Troughs etc. etc.

When I took these photographs I had only made one set of metal, and therefore had to put an "odd" Carrier on the horse for each photo so as to balance the load.

15. A wire Basket which fits on top of "Pack Saddle" with a clip and carrying the Brass Couplings wrapped in a sandbag.



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Each of Photo 14/15

1. G.S. Lift and Force Pump
2. Worthington Pump
3. Carrier for G.S. Lift and Force Pump
4. Carrier for Worthington Pump
5. Carrier for 600 Gallon Canvas Reservoir
6. Carrier for 2,500 Gallon Canvas Reservoir
7. Horse carrying G.S. Pump and set of Trough Standards
8. Spear Point - Extension Piece, Brass Couplings, driving Gear etc.
9. G.S. Lift and Force Pump and a Worthington Pump with the "H.A.C. Pumps" attached
10. Another view of Spear Point connected to G.S. Lift and Force Pump and Worthington Pump
11. Horse carrying G.S. Pump and set of Trough Standards
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14. Another view of Spear Point connected to G.S. Lift and Force Pump and Worthington Pump
15. A wire Basket which fits on top of "Pack Saddle" with a clip and carrying the Brass Couplings wrapped in a sandbag.

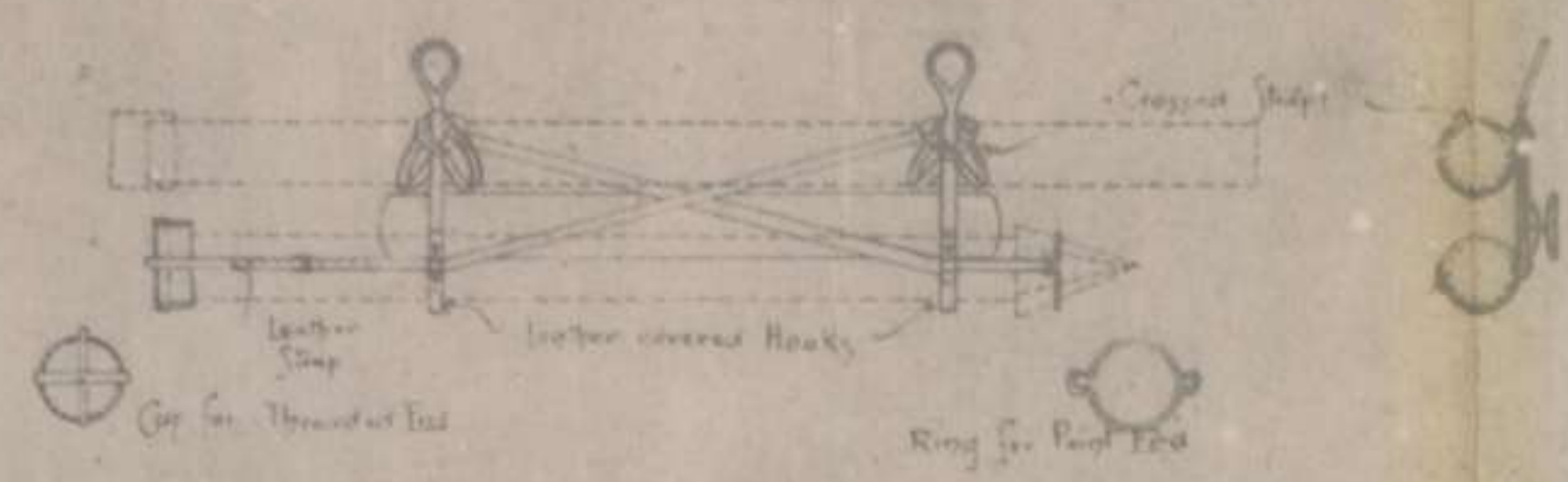
APPENDIX

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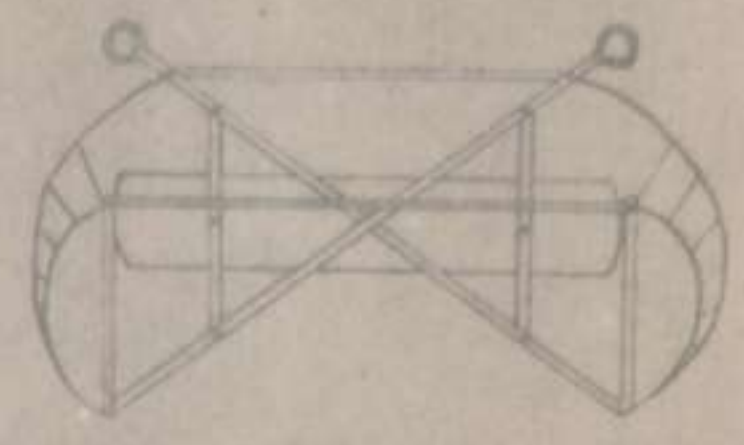
RACK AND CARRIERS FOR PACK-SADDLES (PACK HORSE TRANSPORT)

1st Field Squadron

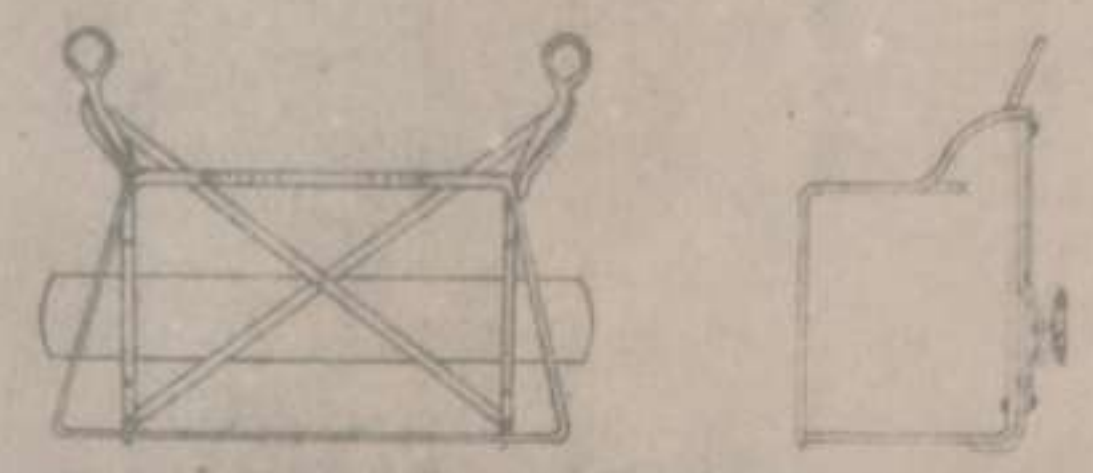
ANZAC Mounted Division



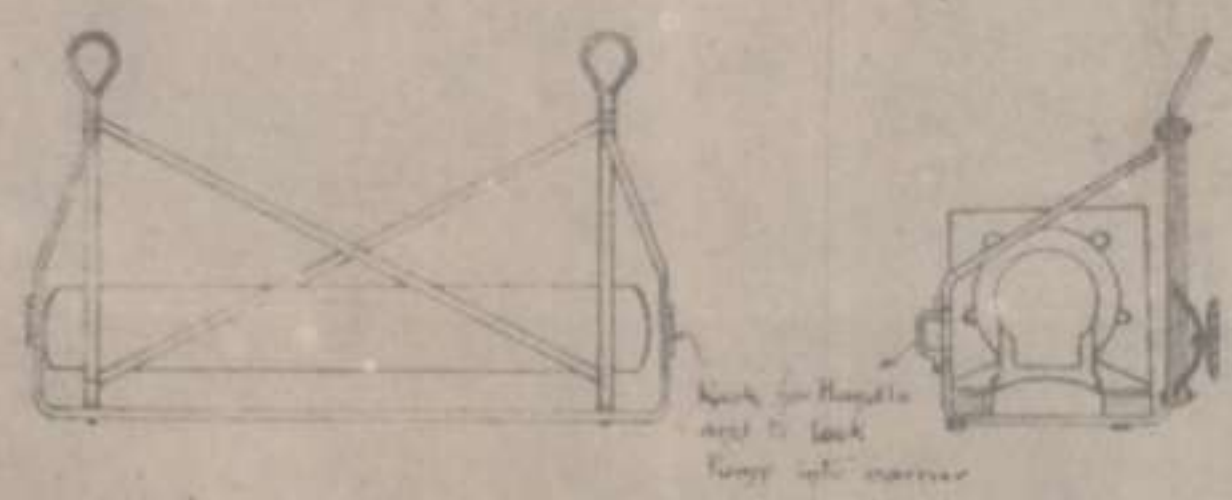
— ANZAC SPEAR POINT RACK —



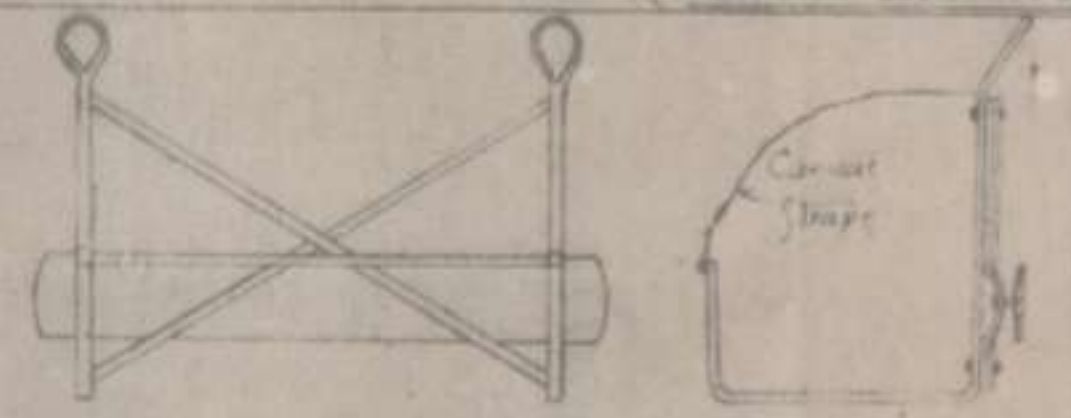
— ANZAC HOSE CARRIER —



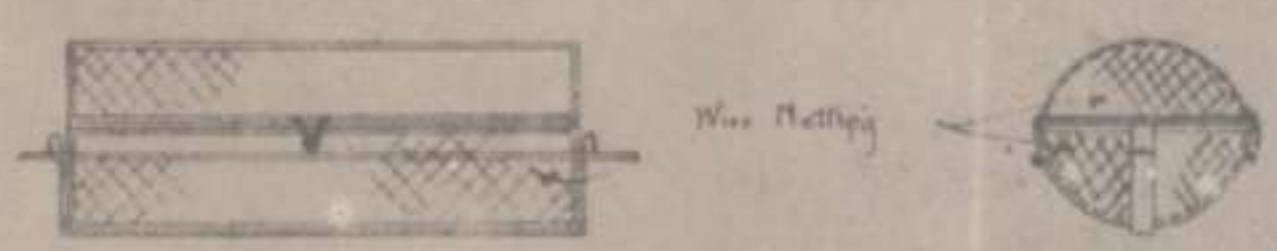
— ANZAC PUMP CARRIER —
(WORTHINGTON PUMP)



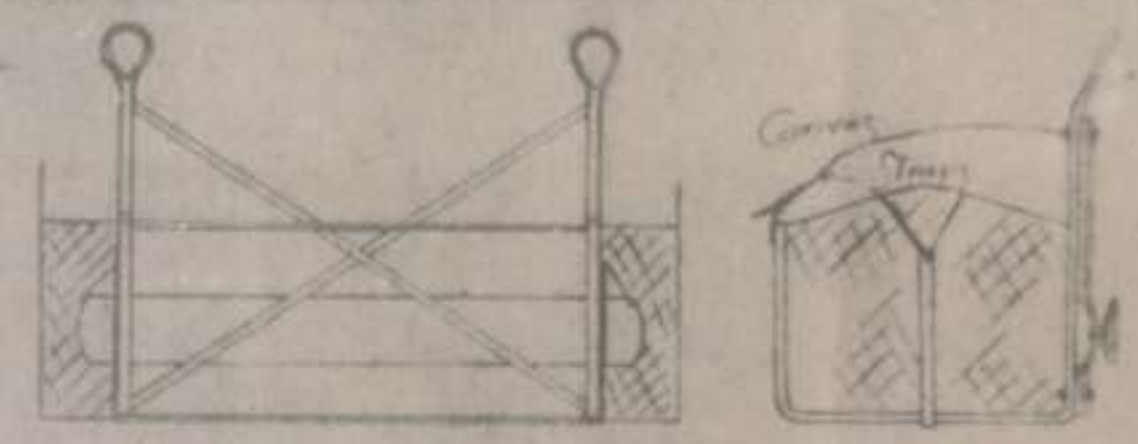
— ANZAC PUMP-CARRIER —
(G. S. LIFT AND FORCE)



— ANZAC TROUGH CARRIER — (CANVAS 600 GALLONS)

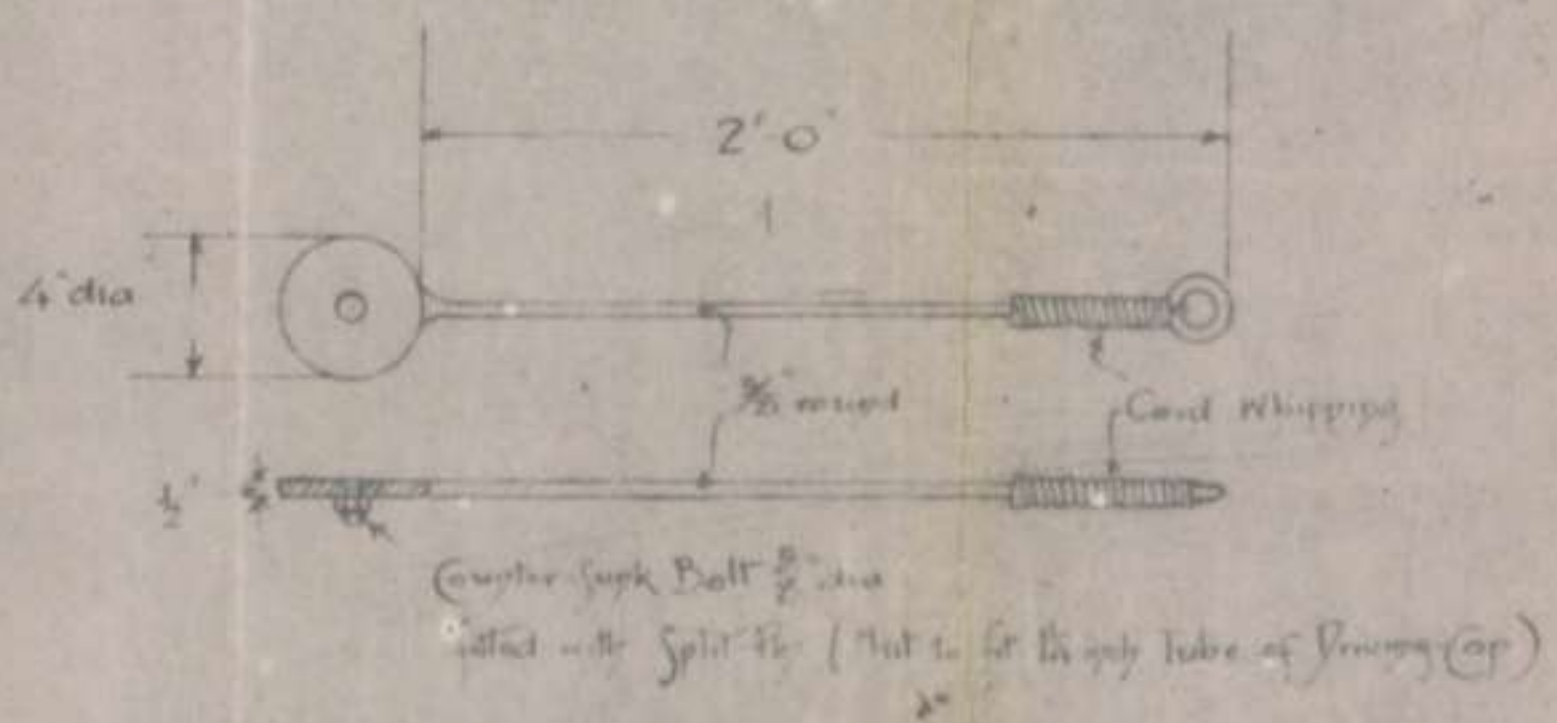


— ANZAC COUPLING-BASKET —



— ANZAC TROUGH-STANDARD CARRIER —

(The originals of these sketches are filed with volume for September 1916)

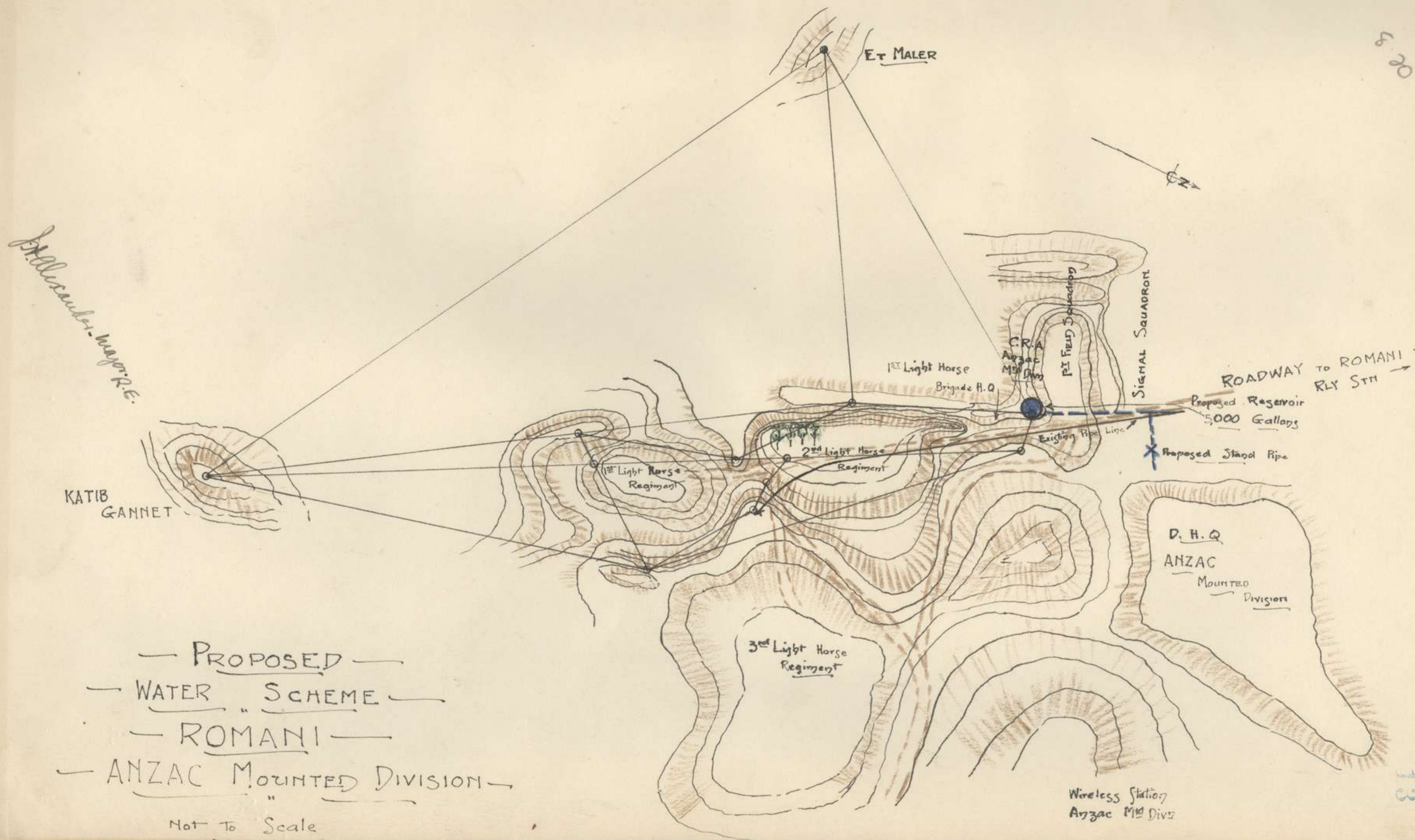


— ANZAC SPEAR-POINT DRIVING-SPOON —

Note — For use when Driving Gear is out of action, a 10 lb Hammer will be used for driving the 2 1/2 inch dia Spear Point, and the Driving Spoon will take the blow and protect the Driving Cap

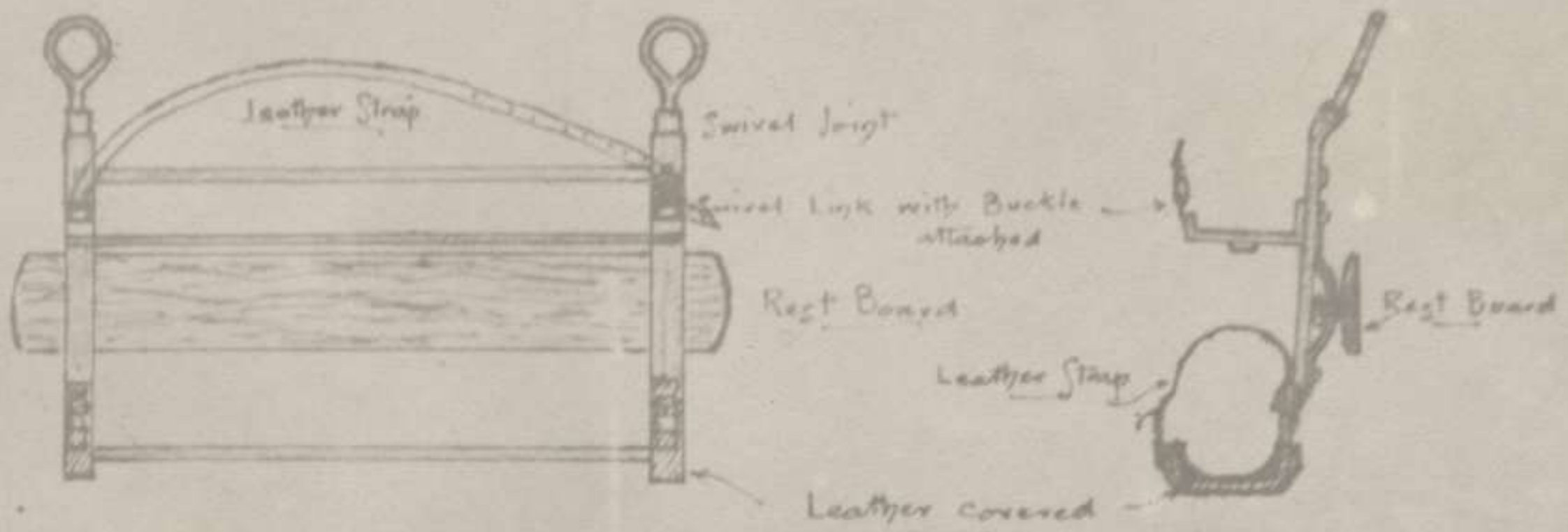
J. Alexander, Major, R.E.
of 1st Anzac Mounted Division
ROMANI
Sept 1916

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APPENDIX

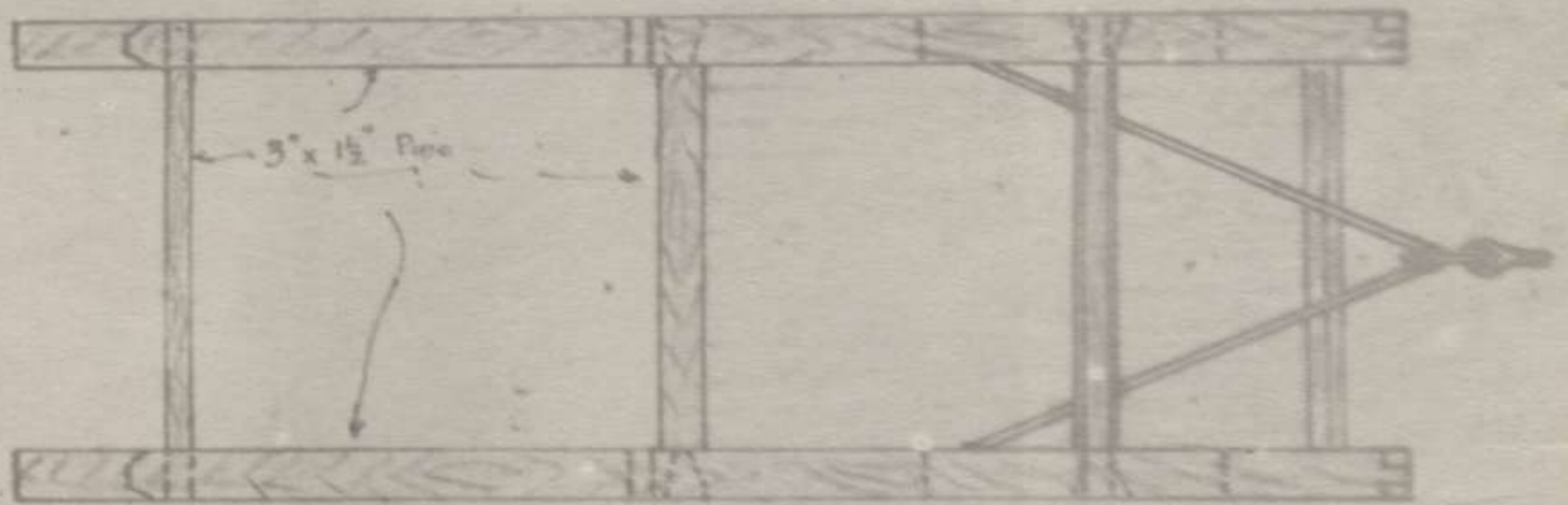
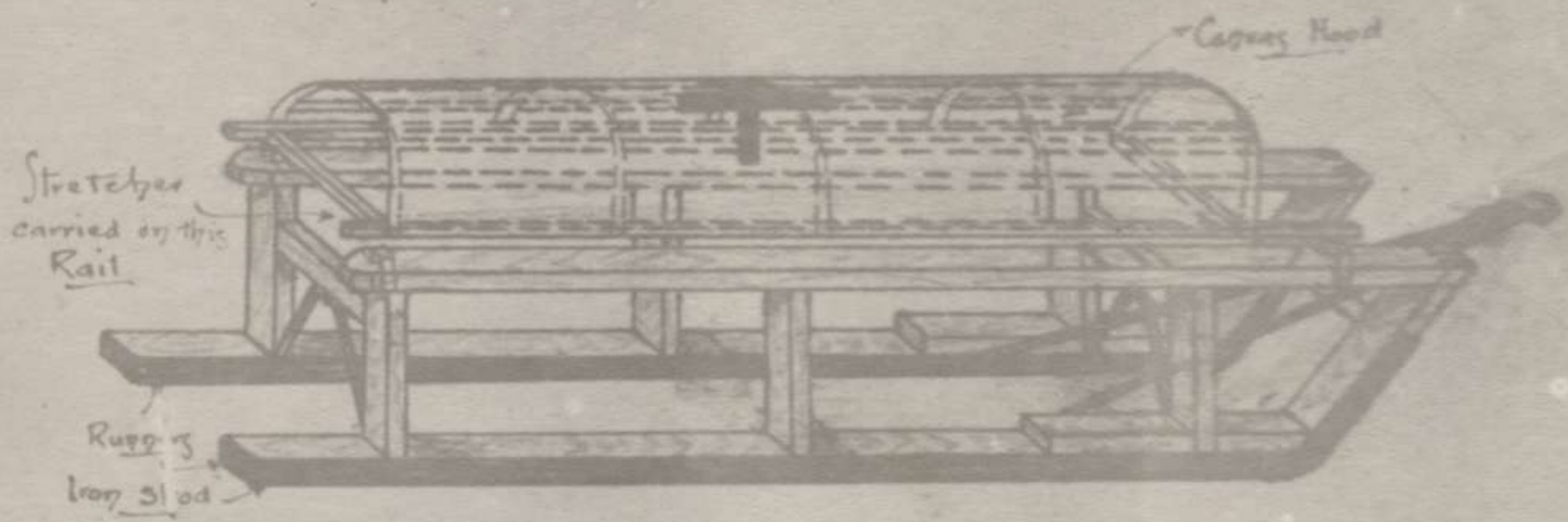
APPENDIX



Machine Gun Carrier
for
2nd Light Horse Brigade Machine Gun Squadron

(The original of above will be found
with diary for November.)

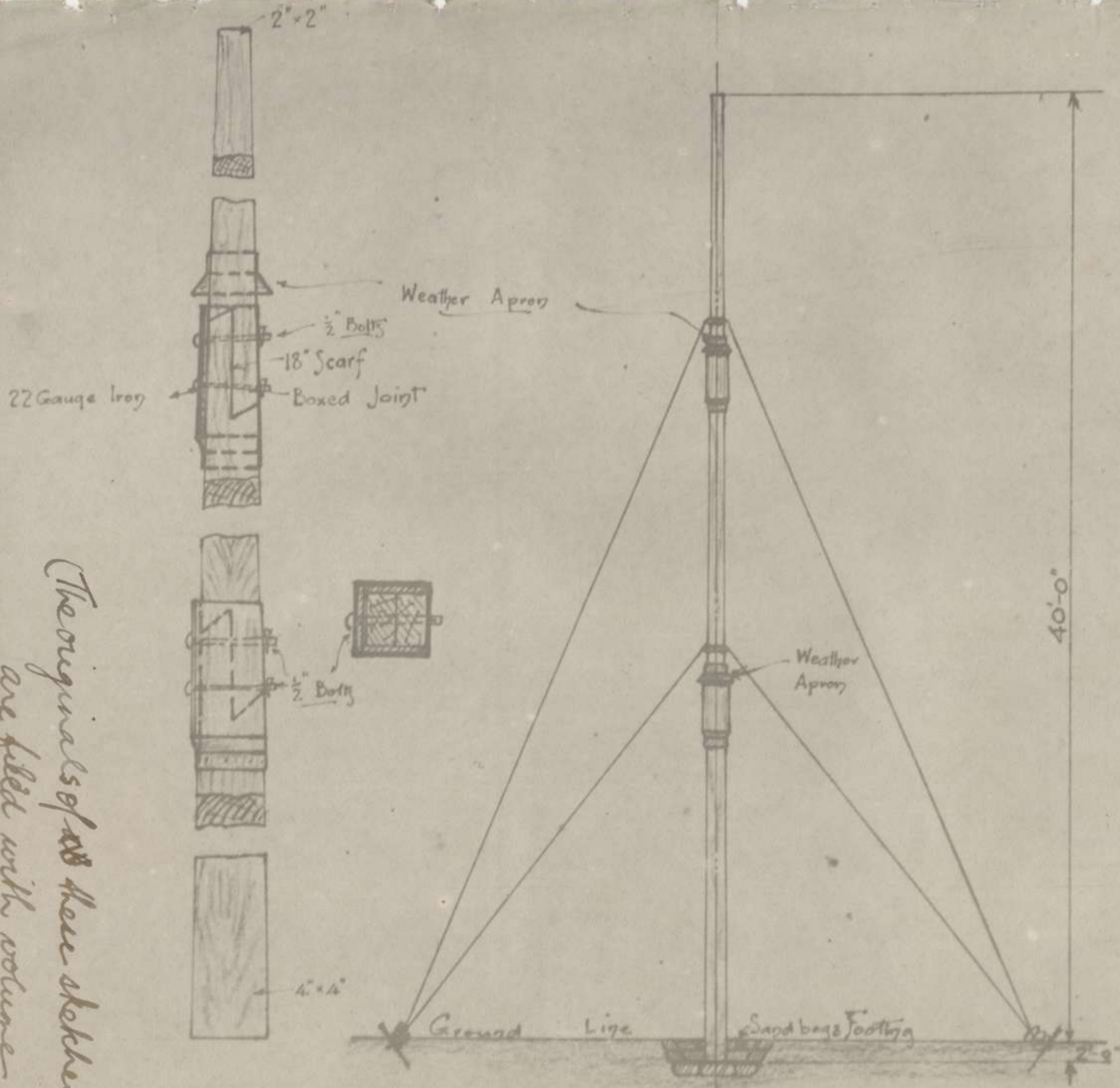
L.S. 17 M



Sledge to carry R.S. Stretcher
made for Field Ambulance.
weight 55 lbs

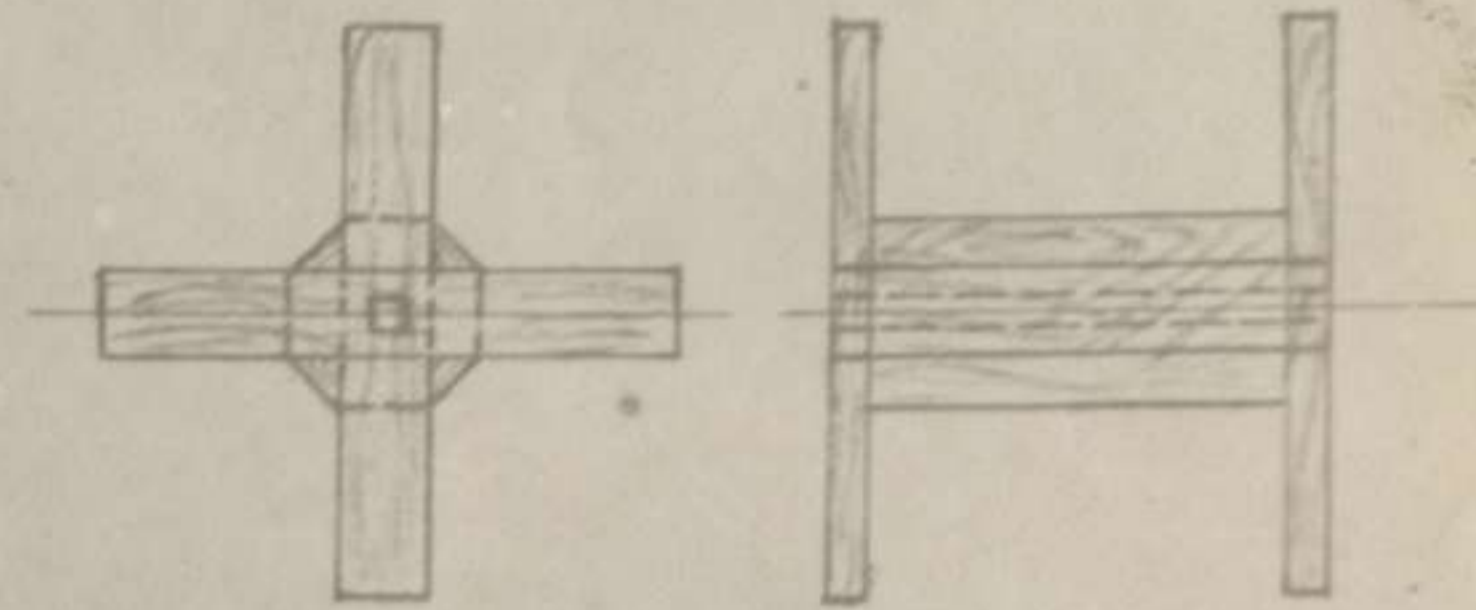
Malcolm Macgregor R.E.

(The original of above will be found with diary for November)

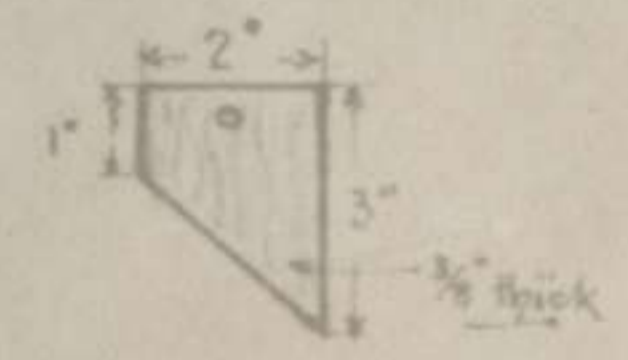


The originals of these sketches are filed with volume for November.

"AERIAL" POLE (Timber) WIRELESS SECTION



(12) REELS FOR TELEPHONE WIRE
SIGNAL TROOP
1ST LIGHT HORSE BRIGADE



Tags (Pige)
Divisional Signal Squadron
ANZAC Mounted Division

Handwritten signature: Alexander Major RE

APPENDIX