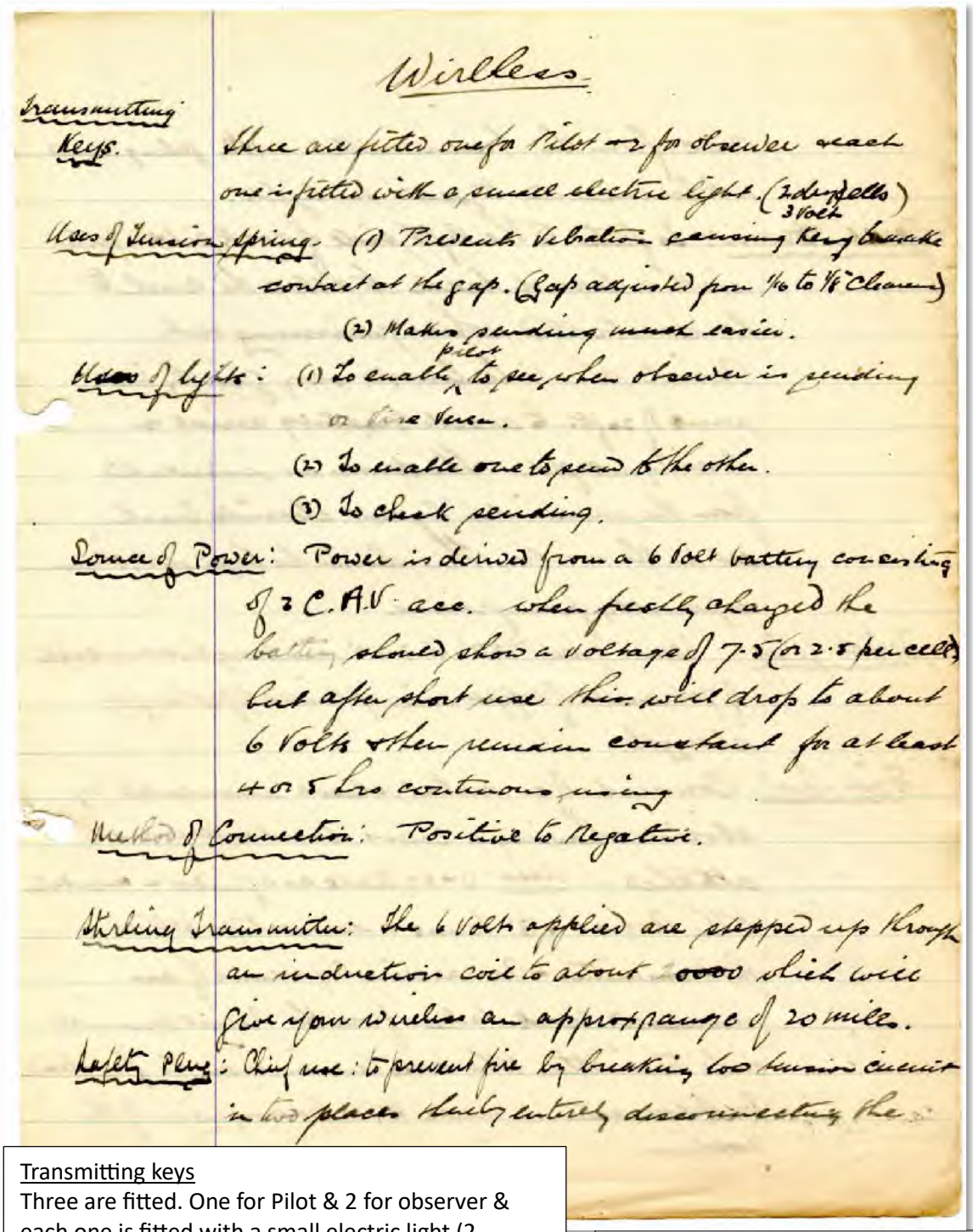
Wireless



Wireless.

Transmitting Keys. Three are fitted one for Pilot & 2 for observer each one is fitted with a small electric light. (2 decibells 3 Volt)

Uses of Tension spring. (1) Prevents vibration causing key to make contact at the gap. (Gap adjusted from 1/10 to 1/8" Clearance)

(2) Makes sending much easier.

Uses of lights: (1) To enable pilot to see when observer is sending or vice versa.

(2) To enable one to send to the other.

(3) To check sending.

Source of Power: Power is derived from a 6 Volt battery consisting of 3 C.A.V. acc. when freshly charged the battery should show a voltage of 7.5 (or 2.5 per cell) but after short use this will drop to about 6 Volts & then remain constant for at least 4 or 5 hrs continuous using

Method of Connection: Positive to Negative.

Stirling Transmitter: The 6 Volts applied are stepped up through an induction coil to about 0000 which will give your wireless an approx range of 20 miles.

Safety Plug: Chief use: to prevent fire by breaking too [illegible] circuit in two places thereby entirely disconnecting the

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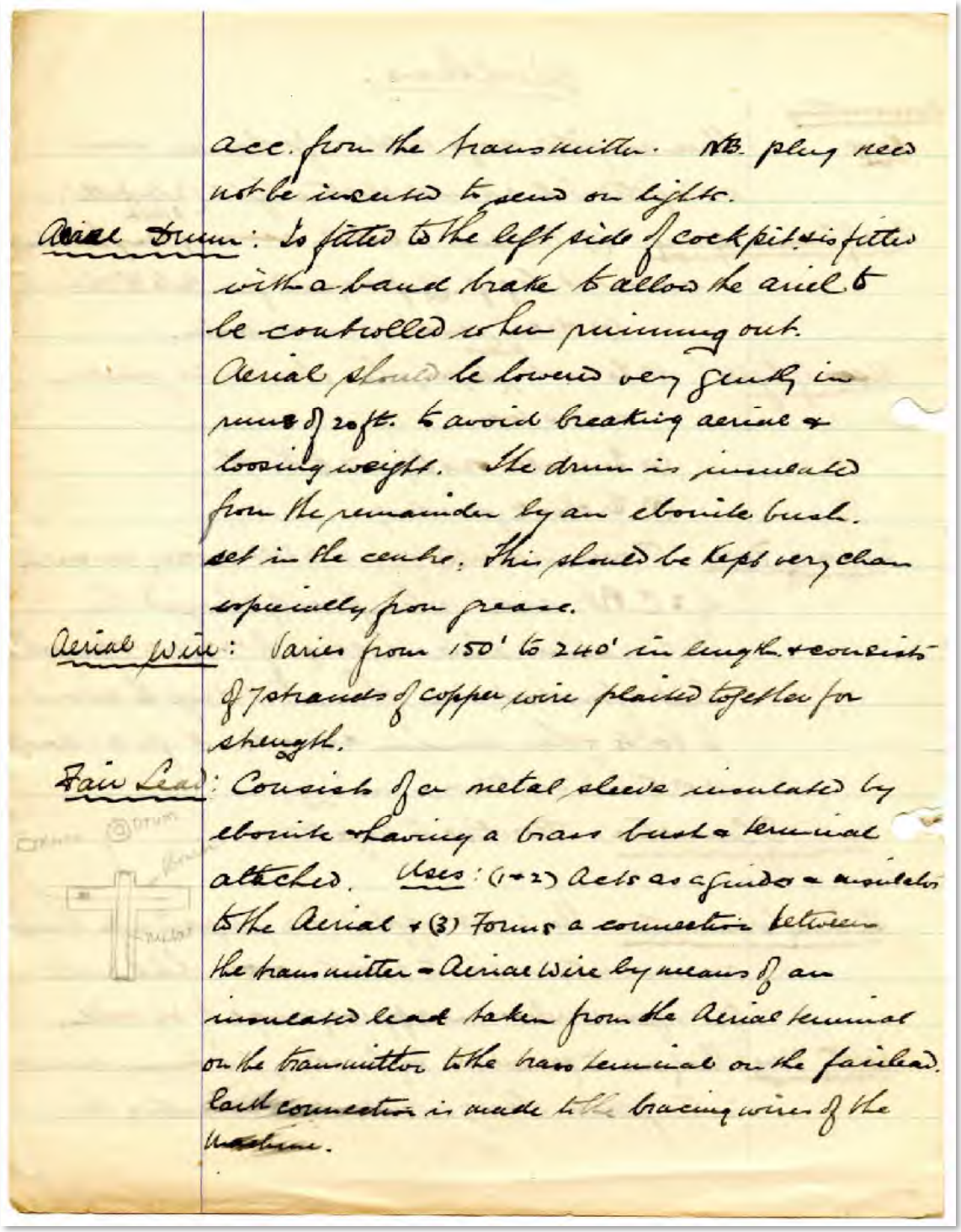

acc. from the transmitter. NB. plug need not be inserted to send on lights.

Aerial Drum: Is fitted to the left side of cockpit & is fitted with a band brake to allow the aerial to be controlled when running out. Aerial should be lowered very gently in runs of 20 ft. to avoid breaking aerial & losing weight. The drum is insulated from the remainder by an ebonite bush set in the centre. This should be kept very clean especially from grease.

Aerial Wire: Varies from 150' to 240' in length & consists of 7 strands of copper wire plaited together for strength.

Fair Lead: Consists of a metal sleeve insulated by ebonite having a brass bush & terminal attached. Uses: (1+2) Acts as a guide & insulator to the Aerial & (3) Forms a connection between the transmitter & Aerial Wire by means of an insulated lead taken from the Aerial terminal on the transmitter to the brass terminal on the fairlead. Each connection is made to the bracing wires of the machine.

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Aerial drum:

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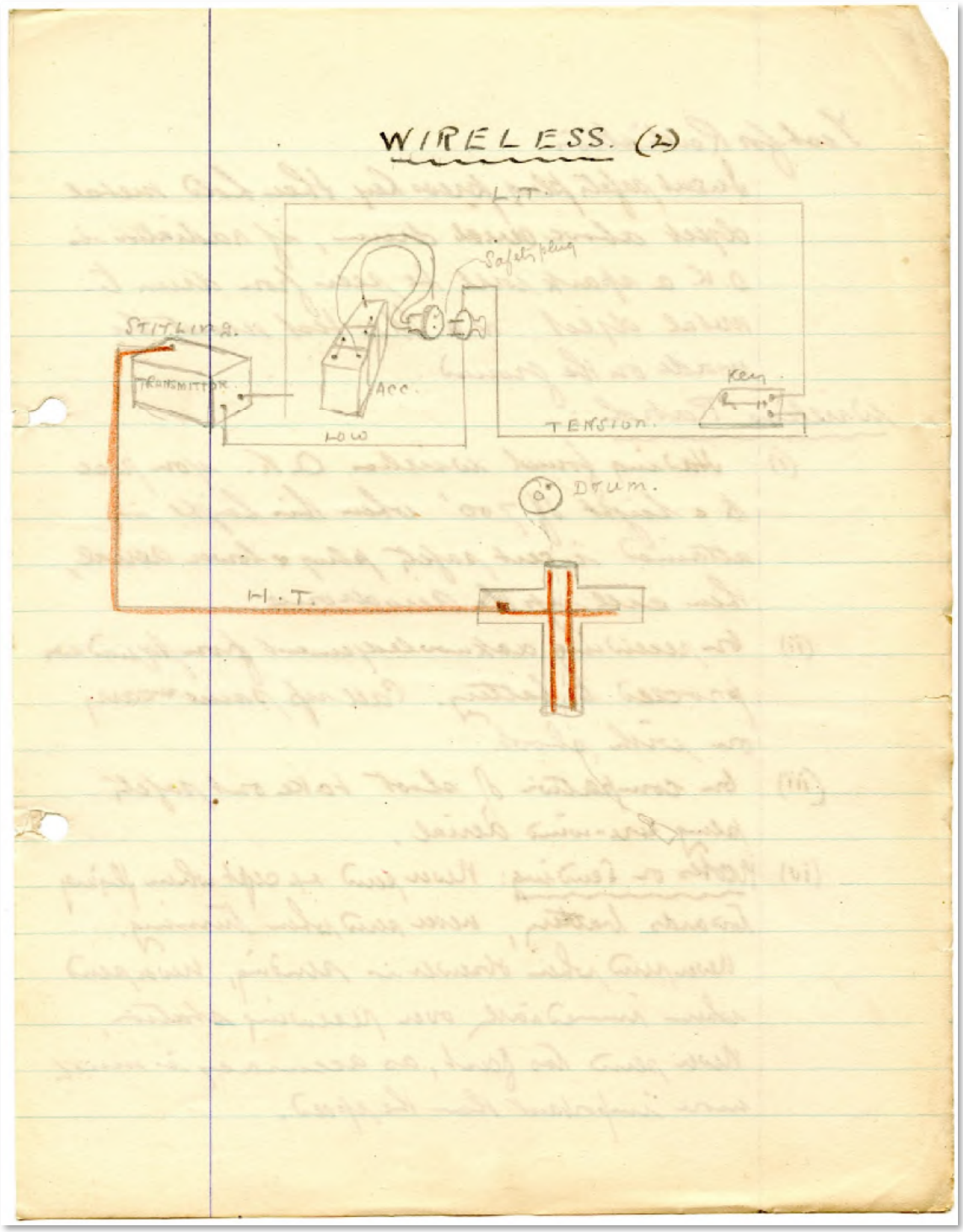
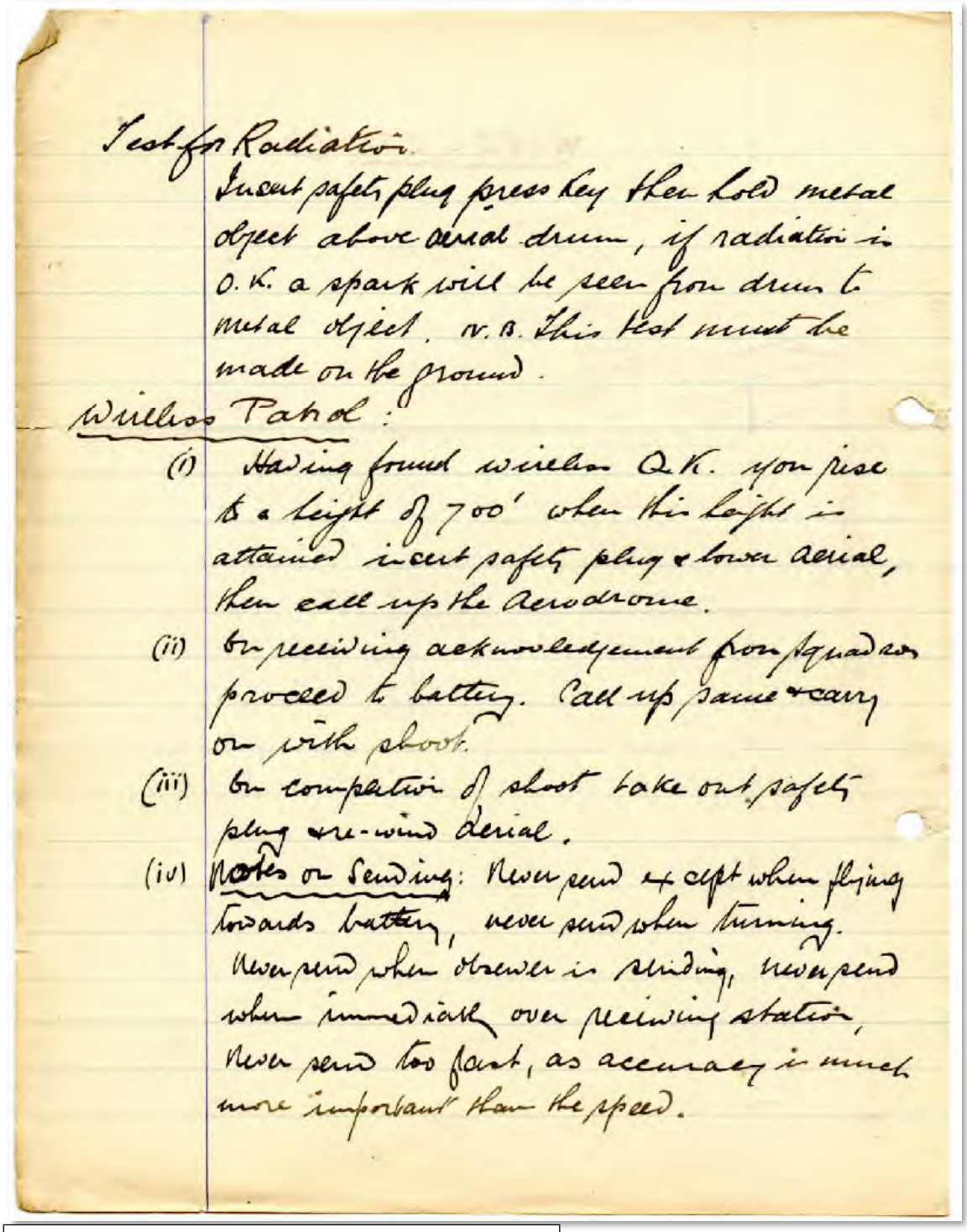
WIRELESS (2)



(Full page illustration of connections between Stirling transmitter and key)



Test for Radiation.
Insert safety plug press key then hold metal object above aerial drum, if radiation is O.K. a spark will be seen from drum to metal object. N.B. This test must be made on the ground.

Wireless Patrol:

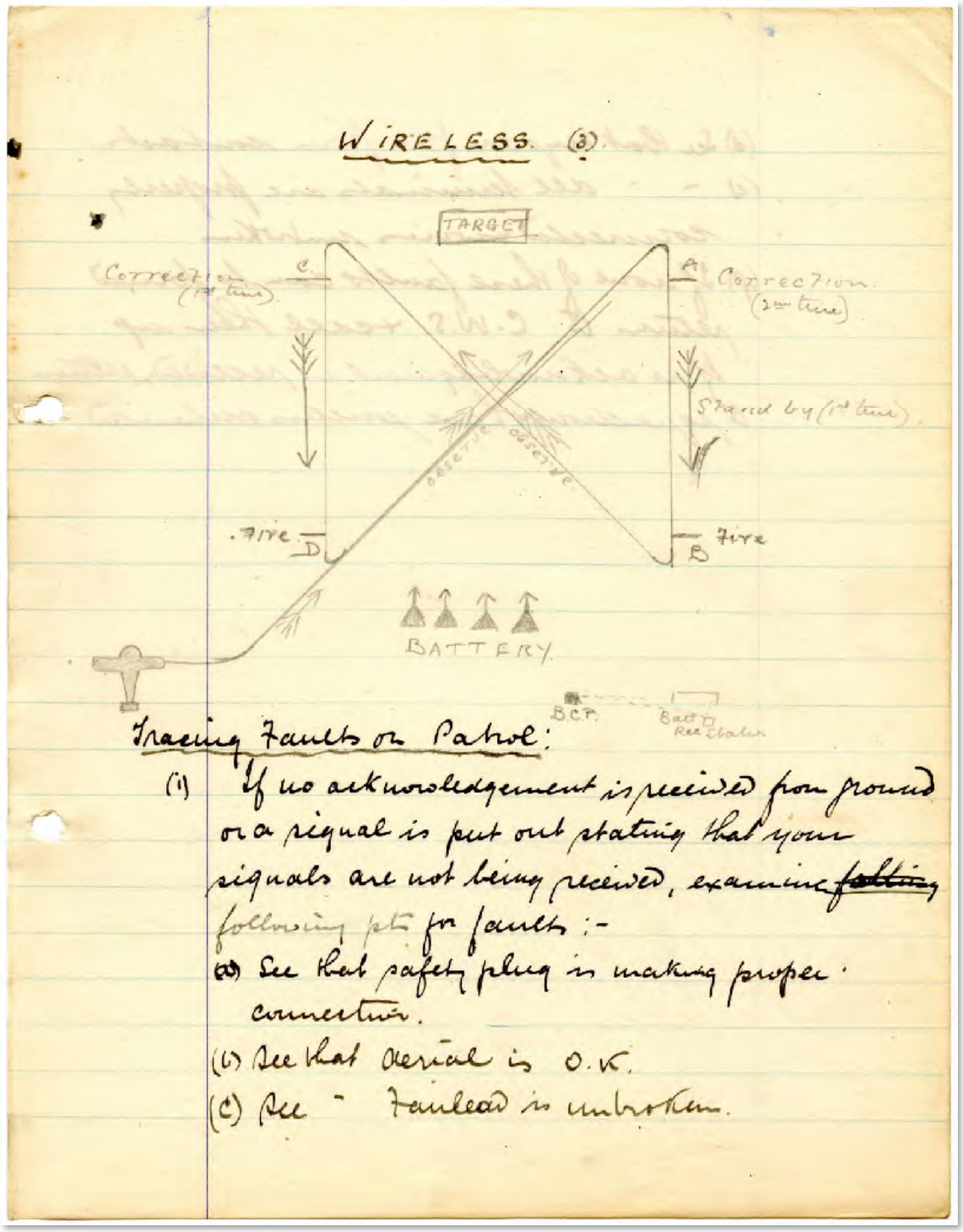
(i) Having found wireless O.K. you rise to a height of 700' when this height is attained insert safety plug & lower aerial, then call up the Aerodrome.

(ii) On receiving acknowledgement from Squadron proceed to battery. Call up same & carry on with shoot.

(iii) On completion of shoot take out safety plug & re-wind aerial.

(iv) Notes on Sending: Never send except when flying towards battery, never send when turning. Never send when observer is sending, never send when immediately over receiving station, never send too fast, as accuracy is much more important than the speed.

WIRELESS (3)



(Illustration of appropriate sending points in relation to plane, battery and station)

Tracing Faults on Patrol:

(i) If no acknowledgement is receive from ground or a signal is put out stating that your signals are not being received, examine following pts for faults:

(a) See that safety plug is making proper connection

(b) See that Aerial is O.K.

(c) See " fairlead is unbroken

(d) See that keys are free from contact
(e) " " all terminals are properly connected & wires unbroken
(f) If none of these faults can be found return to C.W.S. & call them up. If no acknowledgement is received, return to squadron & have wireless overhauled.

(d) See that keys are free from contact
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