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SIGNAL TRAINING

VOLUME III.

Pamphlet No. 3.

FULLERPHONE, MARK III.*

1923.



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THE WAR OFFICE.

February, 1923.

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FULLERPHONE, MARK III.*

CHAPTER I.

GENERAL DESCRIPTION.

1. *Advantages and disadvantages of Fullerphone.*

1. The Fullerphone is chiefly designed to take the place of the various "buzzing" instruments in use in the Signal Service, in order to obviate the well-known disadvantages of these instruments.

2. The advantages and disadvantages of the "Vibrator Telegraph" or the "Telephone Set D" (when the buzzing call is used for signalling) are, shortly, as follows:—

3. *Advantages of Vibrator.*

i. The apparatus is light and the battery power small, consequently it is very portable.

ii. The signals are received in an ordinary telephone receiver which is very sensitive and robust, and requires no adjustment for varying strength of signals.

iii. Ordinary morse and vibrator signals can be sent simultaneously on the same line.

iv. Lines in bad condition can be used, and signals can even be obtained in some cases when the line is broken.

4. *The Disadvantages of Vibrator.*

i. The comparatively high potential and rapidly alternating currents which are sent along the line cause similar currents to flow in adjacent circuits, either by induction or earth leakage (the latter is generally the more troublesome cause), thus not only causing interference between neighbouring circuits, but also enabling the messages to be read by suitable listening circuits at a considerable distance.

The only way of obviating this interference and overhearing is by having a complete revolved metallic circuit thoroughly well insulated—a condition which it is impossible to maintain in a shelled area.

ii. This disadvantage also applies (though to a rather less extent) to any telephone. The result is that any messages transmitted by "buzzer" or telephone anywhere near the front lines are liable to be read by the enemy.