Chapter 7

IGNITION SWITCHBOX, 2-WAY, TYPE A

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LIST OF ILLUSTRATIONS

LEADING PARTICULARS

Ignition switchbox, 2-way, Type A ...	*Stores Ref. 5CW/548*
Dimensions of mounting plate	*1·5 in. × 2·55 in.*
Overall depth	*2·23 in.*
Weight	*4·25 oz.*

Introduction

1. Ignition in an aero-engine is controlled by switches connected to the primary circuits of the magnetos. Each switch is arranged so that when it is closed it short-circuits the contact breaker of the magneto, and so prevents the high-tension voltage being generated in the secondary winding.

2. The switches are constructed in the normal manner so that the circuit is closed when the dolly is in the down position, but this position is designated OFF. Thus when the dolly is down the magneto is out of action, and when it is up the magneto is on. It should be borne in mind that if the switch is disconnected and the lead left open-circuited

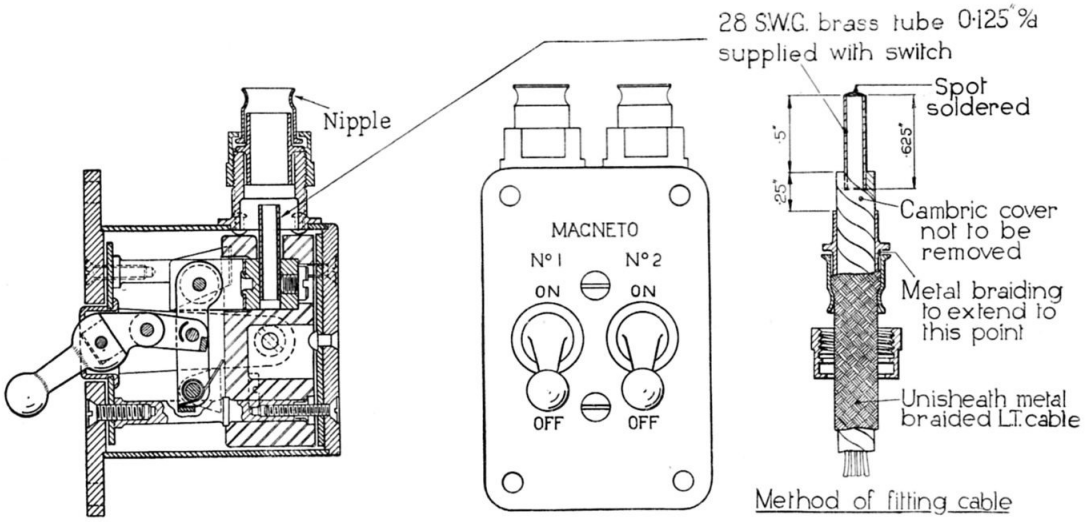

Fig. 1. Ignition switchbox, 2-way, Type A

the magneto is on, and not off, and it is therefore, advisable always to earth the lead when an ignition switch is removed.

DESCRIPTION

3. The 2-way ignition switchbox, Type A (*fig.* 1) consists of two ignition switches, with the ordinary toggle mechanism, mounted side by side in a screening metal box. The mounting plate, cover, and base plate are of aluminium, and with the duralumin nipple at the cable entry form the electrostatic screen. The terminals are mounted in moulded insulating material and one is connected to the outer contact of each switch. The inner contacts, which are made in one piece, are connected to the case, which is earthed when the switch is installed. The contact stud on the switch arm bridges the contacts and earths the single leads connected to the terminals.

4. The switches are intended to be wired with Unisheath 7 metal-braided cable, and a special union is provided to ensure continuity between the braiding of the cable and the screen of the switch. The construction of this union and the method of fitting the cable are shown in fig. 1. The cambric tape lapping should extend to the end of the rubber covering, and the metal braiding should be securely gripped between the two sleeves.