

SECTION XI

CHAPTER 12

BAYONET AND QUICK-RELEASE UNIONS, Mk. IIIA, Mk. IIIB*, Mk. IIIC and Mk. IV

General

1. A bayonet or quick-release union constitutes a connection which may easily and quickly be made and broken. It is designed to enable the oxygen mask, which is attached to the clothing during flight, to be disconnected from the remainder of the apparatus. This connection is provided to allow the occupant to leave the aeroplane quickly in an emergency and to move rapidly from point to point in the aeroplane. The bayonet union consists of two parts, namely the socket, which is mounted in a convenient position in the aeroplane and connected permanently to the remainder of the fixed equipment, and the plug which is connected by flexible tubing to the mask.

Description

2. *Mk. IIIB* bayonet union.*—The Mk. IIIB* bayonet union is shown in fig. 1. The socket is about one inch in external diameter and is hollowed out to take the plug. The walls which are about $\frac{1}{8}$ in. thick, have two bayonet slots cut in them. The inlet consists of a plain tube fixed into the side of the socket near the base and designed to fit a low-pressure union, also a rubber washer is fitted into a groove at the outlet of the socket. Fitted in the body of the socket is a non-return valve, which closes when the plug is withdrawn. This feature prevents excessive leakage during transference of a plug to another more conveniently situated socket to suit the working conditions of the operator. This non-return valve has a conical surface which is held to a seating by a small

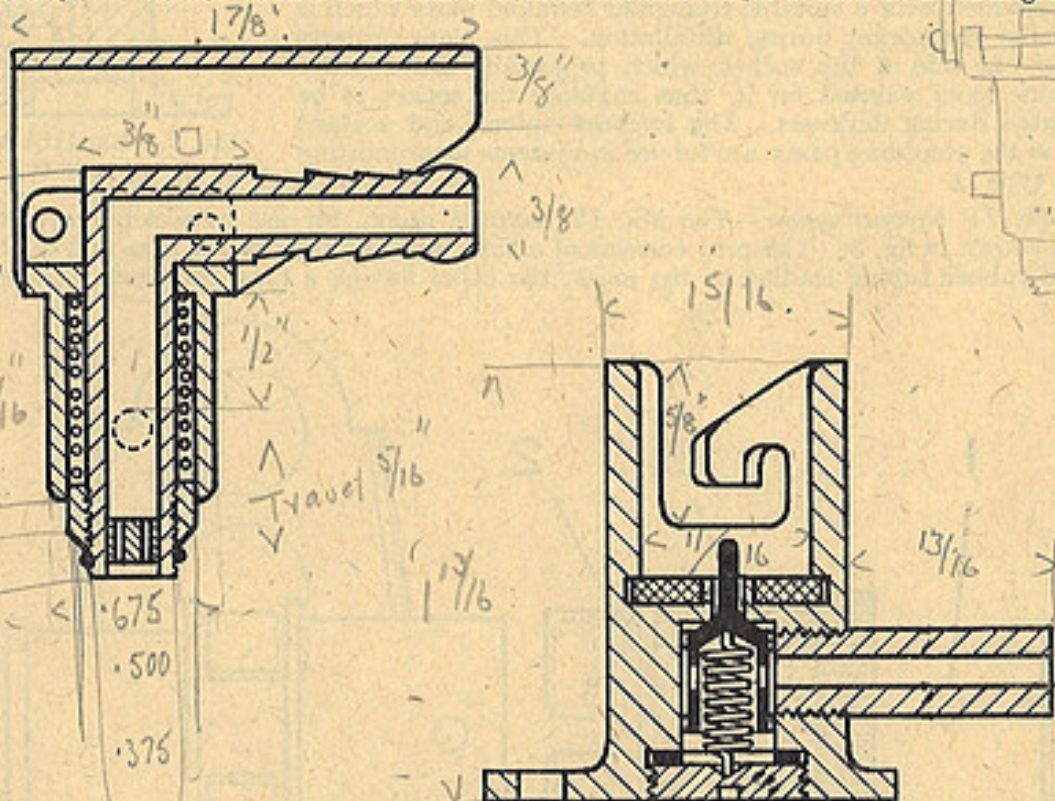


FIG. 1.—Mk. IIIB* BAYONET UNION

spring housed inside the valve body. The spring is under compression between the valve and a screwed plug in the base of the socket. It is compressed further when the bayonet plug is inserted. The valve is an easy running-fit in the bore of the socket. The two flanges have a series of grooves which with the four holes in the undercut position of the valve body tend to an easy and even distribution of gas through the valve.

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