Sept. 19, 1944. G. F. L. VAN MEERBEKE 2,358,367

PITOT TUBE BLOCK-CONNECTOR ASSEMBLY

Filed Oct. 20, 1943

FIG. 1.

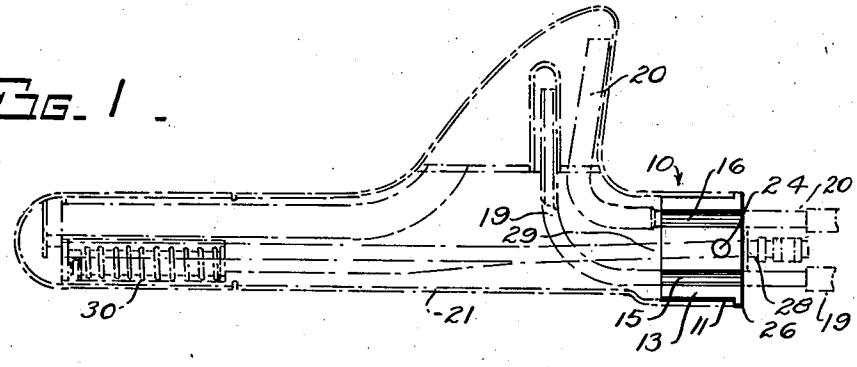



FIG. 2.

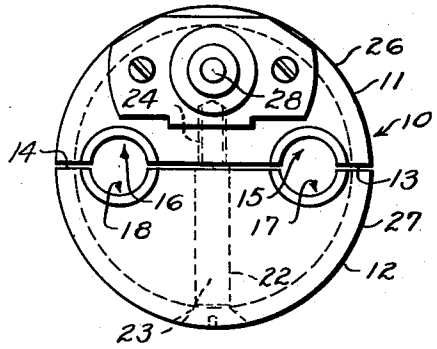



FIG. 3.

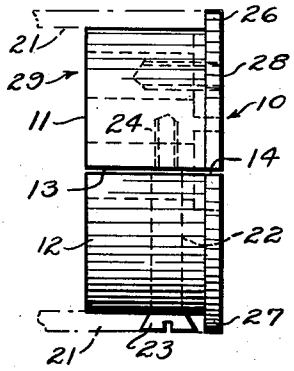
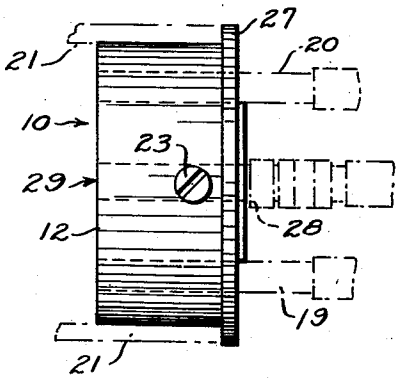



FIG. 4.




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# UNITED STATES PATENT OFFICE

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## PITOT TUBE BLOCK-CONNECTOR ASSEMBLY

Gordon F. L. Van Meerbeke, Orlando, Fla.

Application October 20, 1943, Serial No. 506,977

2 Claims. (Cl. 73—212)

(Granted under the act of March 3, 1883, as amended April 30, 1928; 370 O. G. 757)

The invention described herein may be manufactured and used by or for the Government for governmental purposes, without the payment to me of any royalty thereon.

This invention relates to improvements in Pitot tubes and more particularly to an improved block-connector therefor.

It is the aim of the present invention to improve block-connectors of the type indicated by character reference 22 in United States Patent No. 2,204,367.

A further object of the present invention is to provide a readily removable block of the character to facilitate and expedite the removal thereof from a Pitot tube in order to expose and free the interior assembly for repairs, removal, and replacement.

With the foregoing and other objects and aims in view, my invention resides in the combination of parts and in the details of construction hereinafter set forth in the following specification and appended claims, an embodiment thereof having the characteristics of my invention and by which the same may be practiced being illustrated in the accompanying drawing in which:

Fig. 1 is a longitudinal cross section of a Pitot tube in phantom illustrating in elevation the face of one of cooperative members forming the improved assembly block;

Fig. 2 an end view of the separable assembly block;

Fig. 3, a side elevation of the improved block as shown in Fig. 2; and

Fig. 4, a side elevational view of the block rotated approximately 90° with respect to the position illustrated in Fig. 3.

The invention consists of a Pitot tube block-connector 10 formed of cooperating half blocks 11 and 12, each having a flat face 13 and 14, respectively, in which faces are provided spaced recesses 15 and 16 and 17 and 18 extending thereacross and adapted to register when assembled to form passageways for a static pressure line 19 and Pitot pressure line 20 extending from the shell of the Pitot tube 21 to pressure sensitive instruments.

In order to clamp the half blocks in cooperative relationship about the lines 19 and 20, one of the blocks is provided with a bore 22 therethrough, laterally disposed with respect to the recessed face and intermediate the recesses to receive the shank of a screw 23 and the other of said half blocks is provided with a threaded recess 24 adapted to be engaged by the threaded portion of the screw 23 extending through the bore 22 of the first-mentioned block. The assembly screw 23 by passing through an opening in the wall of tube 21 may also serve as means for securing the cooperatively assembled blocks in the Pitot tube 21, and in order to facilitate registry of the bore 22 of the one block member with the threaded recess 24 of the other, for the insertion of the screw 23, the half blocks are provided with head members 26 and 27, which when brought to rest upon the end of the Pitot tube 21 will automatically bring the respective screw bores into registry.

One of the half blocks is also provided with conventional front and rear communicating sockets 28 and 29 in order to connect a heater coil 30 within the Pitot tube to a source of energy.

From the foregoing it will be seen that the interior members of a Pitot tube may be readily freed, removed, and exposed for repair and replacement by the removal of the screw 23 and the separation of the half blocks to free the members heretofore extending through said types of blocks.

Having described my invention and illustrated an embodiment by which the same may be practiced, what I claim is:

1. In combination with a Pitot tube having an open end and an opening through a wall thereof adjacent said end, a block-connector assembly adapted to fit into the end of said tube and retain static and Pitot pressure lines extending from said tube in fixed relation, said connector assembly comprising separable complementary block sections having mating face portions each provided with recesses thereacross cooperatively registering to form passageways for said lines, said complementary block sections each having a flange projecting beyond the non-mating faces thereof adapted to abut the end of said tube when the assembled block sections are inserted therein, said assembled block sections also having a bore extending through one of said complementary block sections into the other transversely and intermediately of said recesses in registry with the opening through said tube wall when the flanges of the assembled block sections are in abutment with said tube end whereby the block sections may be secured in cooperative relationship in the end of said tube by a member extended through said tube wall opening and into said registering bore.

2. For use in combination with a Pitot tube having an open end and an opening through a

wall thereof adjacent said end, a block-connector assembly adapted to fit into the end of said tube and retain static and Pitot pressure lines extending from said tube in fixed relation, said connector assembly comprising separable block sections having mating face portions and complementary recesses thereacross cooperatively registering to form passageways for said lines, said assembled block sections having a bore extending through one of said block sections into the other transversely and intermediately of said complementary recesses adapted to register with the opening through said tube wall whereby the block sections may be secured in cooperative relationship in the end of said tube by a member extended through said tube wall opening and into said registering bore.

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