An Engineer Solves a Dieppe Problem

An analysis of the Dieppe Raid in August 1941 identified the need for the protection of engineer demolition parties breaching obstacles. It was decided that the Engineers should have tanks and the problem was given to the Tank Design Division to resolve.

Churchill AVRE with fascine mounted

Within eight days, Lieutenant John Denovan, RCE, a Canadian liaison officer with the Division, produced rough drawings and specifications for a vehicle to protect engineers based on a Churchill Tank. His concept was supported, but due to a lack of resources, it could not be pursued at that time.

Denovan then 'acquired' a Churchill tank and, quite illegally, tore it apart to make the changes he had proposed. The gun was replaced with a Petard mortar that would project a 40-pound demolition charge about 150 yards and the co-drivers seat was removed to make way for stores. 1st Mechanical Equipment Company, RCE carried out the necessary work and a satisfactory demonstration was completed on 14 January 1944.

Much to Lt. Denovan's relief, development of this new armoured vehicle was authorized and additional versions were designed including some with mine flails, dozer blades, assault bridges, cranes, and numerous other devices. The vehicle became known as the Armoured Vehicle Royal Engineers (AVRE). The AVREs appeared in Royal Engineer units as early as April 1944 in preparation for the D-Day invasion of Europe. A total of 574 AVREs were produced during the war and contributed immensely to the sappers ability to breach obstacles under heavy enemy fire.

In recognition of Denovan innovations, on 2 May 1953, the United Kingdom Royal Commission on Awards to Inventors awarded Major J.J.Denovan 1500 £ for his part in the development of the AVRE.