Portal pressed steel prototype temporary bungalow

Peter Lobner, 15 June 2020

The Portal was the first prototype prefabricated temporary bungalow manufactured under the UK’s Emergency Factory Made (EFM) housing program. The small steel-paneled house was named after British politician Lord Portal, who was the Minister of Works and Planning from 1942 to 1944. The house was sponsored by the UK’s automobile industry.

The original Portal prototype, with center-entry front door, was displayed to the public in 1944 as part of the Tate Gallery exhibition of temporary prefab houses in London. An second version of the Portal prototype had a side-entry door.

The original Portal prototype with a central entry door at the Tate exhibition in 1944. Source: Prefab Museum, PRM.00161
The second Portal prototype with a side entry door, May 1944. 
Source: Airfield Research Group via Prefab Museum, PRM.00102.11

Elevation and section drawing, possibly for the second Portal prototype with a side entry door, October 1944. Source: Chiltern Open Air Museum via Prefab Museum, PRM.00150.01
The original Portal prototype had 616 ft² (57.2 m²) of floor space and external dimension of 32'4" by 21'3" (9.8 x 6.5 meters). The house had a living room, two bedrooms, kitchen with a pre-installed refrigerator, and a bathroom. The kitchen and bathroom were arranged back-to-back to meet the Ministry of Work’s guidance for a “service unit” that could be assembled together and fitted as a single unit.

A Portal house was projected to cost £600 - £650 ($2,418 - $2,620 U.S. @ $4.03 USD/£ in 1947). The government’s plan was to rent the house for 10 schillings (50 pence, £0.5) a week for the 10 year expected life of the structure (about US $2.00 per week).
Portal house prototype kitchen with fold-down table exhibited at Tate Gallery, London, 1944.
Source: Screenshots, Pathe newsreel, see link below.
At a time when the UK still had an on-going steel shortage, the Portal was criticized because of the relatively large amount of steel used in its construction. As a result, the Portal design was abandoned in August 1945. In its place, attention was focused on the steel frame, asbestos concrete panel-clad Arcon and Phoenix temporary bungalows and the AIROH aluminum temporary bungalow.

For more information, see the following resources:

- “A home of the future (1944)” (1:43 minutes), British Pathé newsreel on the Portal prototype at the Tate: https://www.youtube.com/watch?v=B7kfL0-QhpM