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The History of the Mobile Hospital Bed

This project seeks to analyse the historical processes of the hospital bed´s materialisation and its embedding in European hospital care from 1900 to 1990. During this period, the industry of hospital bed production developed from several small workshops into a few steel-factories and finally mass production. Europe became furnished with increasingly mechanised expensive hospital beds. Since the late 1980s, this tendency has turned in the opposite direction: fewer hospital beds are being installed and patient mobility targeted.

I would like to show how the historical analysis provides a key to actual problems in hospital care. The focus lies on those parts of the hospital bed that are meant as to serve immobile patients. As a case study, I have chosen the process of mobilising the hospital bed. In the case of the castors as well as in other characteristic parts of the hospital bed – such as the adjustable backrest – the artefact merely supports the concept of disability. As a consequence, patients are still today lying in beds instead of standing at the centre of their medical care as decision makers.

Background

Victorian iron or brass bedsteads were almost always fitted with castors. The weight of a normal iron or brass bedstead was about 100 kg. The castors were primarily needed to move the beds. At the beginning of the 20th century, the production of steel-tubes revolutionised the furnishing industry. Light standardised steel-beds without castors fitted the wards of every new hospital (Hassenpflug 1963: 8).

Hospital Bedstead nr. 101, Catalogue Carl Grothoff, Grüne (Westf.), 1930.

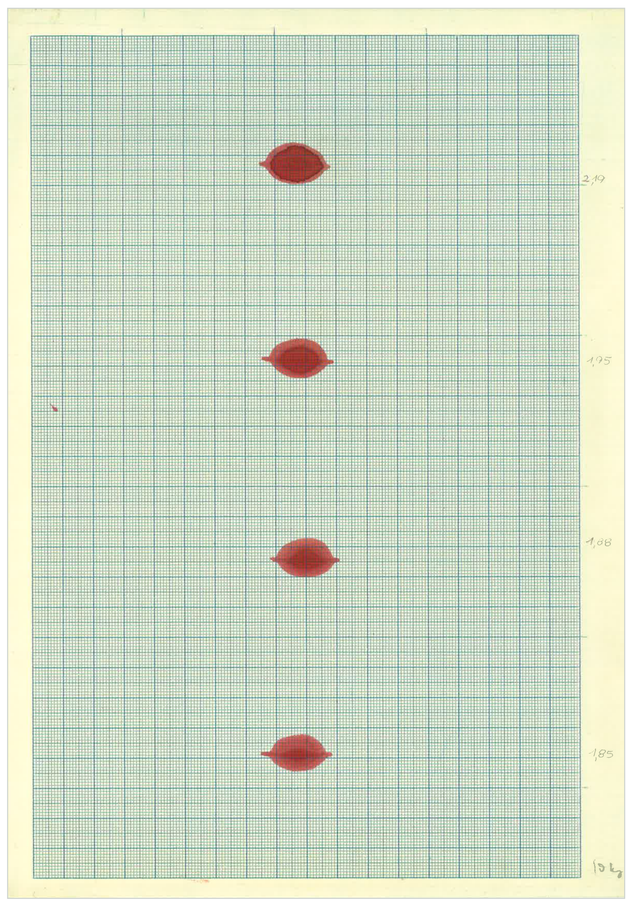
The Case of the Castors

Nevertheless, beds were moved within hospitals: from one ward to another or outside to give patients a chance to breathe fresh air. By using a bed carrier (German Bettfahrer) consisting of two wheels, the beds could be moved.

After the Second World War, governmental and institutional projects started to examine the resources and work flows in hospitals. The main goals were rationalisation and economisation. An adjustable bed height to facilitate the nurses´ work was proposed by the "King´s Fund Bed Project" in the 1960s in Great Britain (Lawrence 2001: 39).

However, in Germany, the focus lay rather on the castors. The Institute for Hospital Architecture of the Technical University of Berlin took part in a research program to configure norms for hospital bed castors in the 1950s. The architects recognised the problem of floor destruction in hospitals: The data provided by the hospitals indicated to the researchers that the bedsteads´ steel tubes were punching holes into the linoleum covering the hospital floors. If bedsteads were provided with castors, the floor seemed to fare better. Another question was how to make the castors more durable (Archive of the of the Institut für Krankenhausbau des XX. Jahrhunderts, Ref: I-0000969-I).


Mobile Sickbed, Catalogue „Arnold Krankenhausmöbel. Katalog VIII", Arnold, 1969.

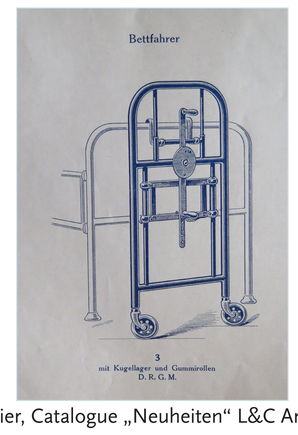

Ink on scale paper. Hospital bed castor tests at the Institute of Hospital Architecture, Berlin, 1954.

Nevertheless, the Institute for Hospital Architecture went in diverse directions. Several castors were ordered from Tente and tested at the institute (See image above). The researchers questioned how the diameter of the castors should be projected.

In the end, the problem of the castors was solved. In order to make them easier to negotiate and manoeuvre the wheels were mainly made larger and the composition of the rubber was changed.

Mobility and Immobility

The efforts made to produce durable castors for hospital beds seem very crucial to me, as long as the reason for this mobilisation of the bed can however be specified. Arguments for mobile beds with permanent castors are rare, except for several articles in recent hospital and medical journals of the Sixties and Seventies discussing the transportation of anaesthetised patients.



Bed carrier, Catalogue „Neuheiten" L&C Arnold, Kempen, 1915.

The image of the immobile patient may have driven efforts towards the development of castors for hospital beds. According to this argument, the mobile bed is a representation of the ideas of designers, architects and hospital planners. However, the case of the history of the development of the castors shows that the materials and their characteristics likewise played an enormous role in the projecting processes.

References:
Archive Krankenhausbau des XX. Jahrhunderts, Berlin. Ref: I-0000969-I, Fachnormenausschuß Bettenrollen.
Arnold, L. & C., Neuheiten der Eisenmöbel-Fabrik Schorndorf L. & C. Arnold. Catalogue. Schorndorf, 1909.
Germes-Dohmen, Ina. „Das Werk der Eisenmöbelfabrik L. & C. Arnold in Kempen." In: Heimatbuch des Kreises Viersen. Bd. 53. Kleve, 2002.
Hassenpflug, Gustav. Stahlmöbel für Krankenhaus und ärztliche Praxis. Düsseldorf: Stahleisen, 1963.
Lawrence, Ghislaine. Hospital Beds by Design: A Socio-Historical Account of the ‚King´s Fund Bed', 1960-1975. London, Diss., 2001.