Invalid-Bedstead
An Adjustable Bed for the Comfort of Patients

What was the Invalid-Bedstead?

The Invalid-Bedstead was a specially made bed for ill or disabled patients that could be used in hospitals or at home. It was a piece of medical furniture that could be adjusted into various arrangements, altering between laid and seated positions ‘for the convenience and comfort of the occupant’. The frame and mattress of the bed were made of four moving sections, which could be repositioned simply by turning a crank handle on the side.

Charles Thomas Moore patented his improvements to the design of the Invalid-Bedstead in 1877. As the handle was turned, it pulled several cords which moved the different sections of the frame. This could be done by the patient themselves, or by a helper. Moore produced a small patent model, made of mahogany, brass and string parts, to demonstrate his design.

The Invalid-Bedstead Design

Charles Thomas Moore included this diagram with his patent application, which shows a longitudinal view of the Invalid-Bedstead. As the handle was turned, all parts of the frame moved together.
Moore’s Invalid-Bedstead was an improvement on designs by earlier inventors. Simpler versions of bedsteads made specifically for bed-ridden patients had existed since the eighteenth century, to allow occupants to sit up securely and eat, rather than just being propped up by cushions. Many different bedsteads were also patented by other inventors working at the same time as Moore. Some allowed the occupant to stand up or turn to either side, and many also included an attached desk or a movable bedpan. Some bedsteads were even made to raise the patient several feet up from the floor, where the air was thought to be clearer and better for their health.

**Who was Charles Thomas Moore?**

Moore was an American inventor, who played an important role in the development of typewriters and printers. At around the same time as he patented his Invalid-Bedstead, Moore was engaged in the design of a ‘writing machine’ for use in court-rooms. In his machine, words were imprinted onto strips of paper, which could then be collated and used to print full pages of text. Moore had a model built, but he could not get it to work properly, and his financial sponsors refused to give him any more money until it was a success.
In August 1876, Moore took his machine to Otto Mergenthaler, a German inventor living in America, who helped improve the design into a working model. Moore’s machine was not widely used, but it inspired Mergenthaler to invent the linotype machine in 1884. The linotype revolutionised printing, and was used to produce newspapers and magazines until the middle of the twentieth century.

How were patents important to Moore?

Moore’s work on the Invalid-Bedstead was a sideline to his main occupation in the printing industry, where he held many patents relating to the design of printers and typewriters. He founded the Moore Printing Typewriter Company and was President of the American Planograph Company. Moore and his backers became very wealthy from his work, though in 1910 they were taken to court for fraudulently presenting inventions that they did not own.

Moore’s own patented Invalid-Bedstead was not particularly popular, but bedsteads built on similar designs are still used widely in hospitals and clinics today. An adjustable bed-frame and side-rails, and wheels to move the patient around, are now standard. There are hundreds of patented designs, many of which use electrical power to reposition the bed. Some now allow the patient to control several devices in their room, and can even be used to help treat particular injuries.

A Method for Preparing Transfer Sheets for Printing

Moore developed a printing machine that could produce one line of text at a time. These lines were then cut up to fit the words properly onto a single page, from which multiple copies could be made using a lithograph printer.