

**RESEARCH PROJECT:**

**J. REILLY'S PATENT**

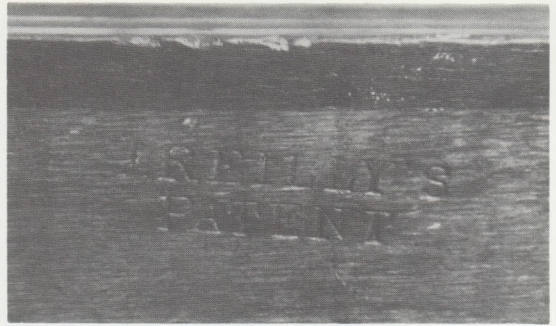
Several times in recent years I have come across "balloon-back" chairs, in real or simulated Mahogany, with flattened screw-heads exposed on the back uprights behind the seat-rail ends. These are the heads of bolts which were used instead of dowels or tenons, passing through the backs and into the rails, to connect with nuts let into slots inside the rails. Such chairs seem to have been brought into South Wales as part of late 19th century furnishing in cheap but fashionable styles.

Recently one turned up stamped **J. REILLY'S PATENT**, and subsequent enquiries have yielded a list of patents which throw light on a very interesting firm (figure 8). Thus in 1835 "James Reilly of 56, Thomas Street, in the City of Manchester....Chairmaker" applied for a patent for the invention of "Improvements in Machinery or Apparatus for Tenoning, Mortising, and Sawing Wood, Metal or other Materials", a general-purpose wood-working machine. This was followed by others concerning methods of bending metal hoops for casks, then in 1858 "James Reilly, the younger, of the City of Manchester....Chair Manufacturer" applied for "Improvements in Chairs and Seats of Various Descriptions". This was a sprung swivelling and rocking system, in effect resembling the mechanism found under the seats of swivelling office chairs. It was applicable to "Chairs and stools...for domestic purposes...easy chairs where ease and comfort are required....seats for railway or road carriages, cabs, ship's cabins, gardens or places of amusement...perambulators...rocking horses....music stools...."

Yet more followed, in 1863 for "Horizontal Shaft and Bearing Lubrication....", 1867 for "Improvements in the making and repairing of Highways....", and again in 1867 for "Mechanical aid worked by hand or motive power to enable the art of swimming, floating and diving to be rapidly acquired".

Whatever flights of inventive fancy had overtaken J.R. Junior, he returned to his own line of business with two patents in 1864 and 1871, both now in the name of "James Reilly" of the New Globe Mahogany Chair and Cabinet Works, Barrack Street, Hulme, Manchester".

Slater's trade directories of Manchester between 1865 and 1879 record James Reilly as "new globe mahogany chair, sofa and cabinet manufacturer by patent machinery".



**FIG. 8 STAMPED J. REILLYS PATENT**



**FIG. 9**



**FIG. 10**

A. D. 1871. FEB. 16. N<sup>o</sup>403.  
REILLY'S SPECIFICATION.

The first is for "Improvements in the Manufacturer of Mahogany and other Wood Chairs, Tables, Couches, Sofas....", and shows a system of seat jointing whereby the side rails were fixed to the backs using either bolt-headed wood screws or coach-type bolts, or both together, as a complete substitute for dowels or tenons. Where bolts were used, the heads were let into the inside of the rails, and the screws connected with nuts cleverly inserted into the tenons of the back cross-rails. A diversity of uses are shown, all having the bolt or screw heads inside or beneath the rails. The purpose of the system was to produce articles which were "much stronger than those put together in the ordinary manner, and can be more conveniently bolstered, polished, and finished, and can also be subdivided into parts for the convenience of packing....".

The 1871 patent, however is for the use of bolts with heads exposed at the back. It is called "Improvements in the Manufacture of Mahogany and other Wood Chairs", and describes precisely the stamped chair illustrated here (figures 9 & 10). He also includes an optional capping-rail on the side-rails, so that slip-seats can be either set in between these or carried across the side rails, and he includes too an optional flat steel front corner brace, which is grooved and screwed into the rails.

The objects of the whole invention were to "enable chairs to be manufactured of different patterns, so as not to require such large stocks as are at present necessary....to make chairs economically by using bolts with their heads outside....chairs of different qualities and cost can be altered to any required extent". (figure 11).

Reilly's designs, amply illustrated in his patent diagrams, reflect commonplace 19th century designs of a popular and durable kind, but his mechanical ingenuity and its implications for serving a mass market surely deserve a proper study.

I would be glad to communicate with a Manchester-based researcher in this respect, and for researchers in general I would like to commend the services of the Patent Office, which has material dating from the 17th century. Enquiries can be made on 071-829-6897 for a start, and then possibly to the British Library Science Reference and Information Service, 25 Southampton Buildings, London, WC2A 1AW. I would like personally to acknowledge the kind help I received from Mr. P.L. Middlehurst of the Patent Office in tracing the many Reilly patents.

FIG. 1.

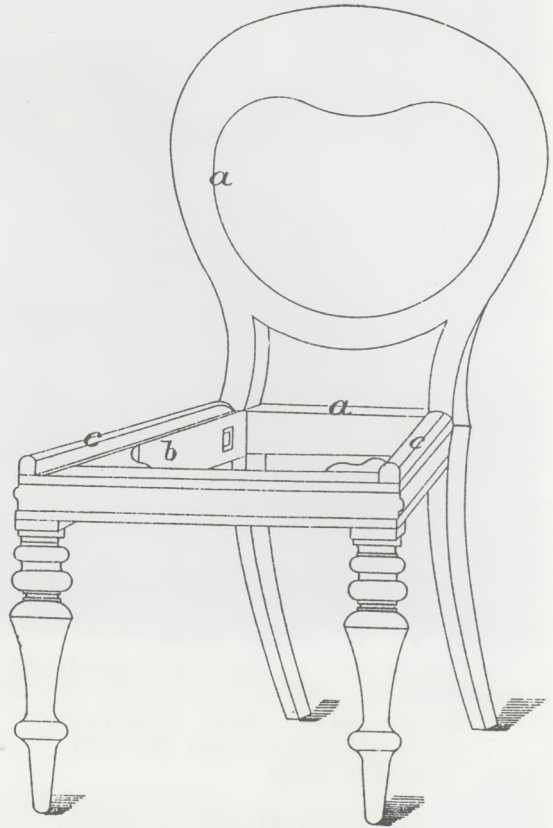


FIG. 5.

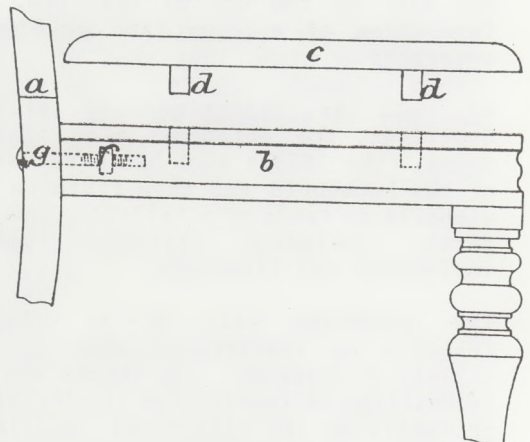


FIG. 11