MSD Design Awards

HSE

Employer | **Herbert Parkinson**

Designer | **David Atherton**

Title | **Design of a handheld tool to insert metal pin hooks into curtain fabrics**

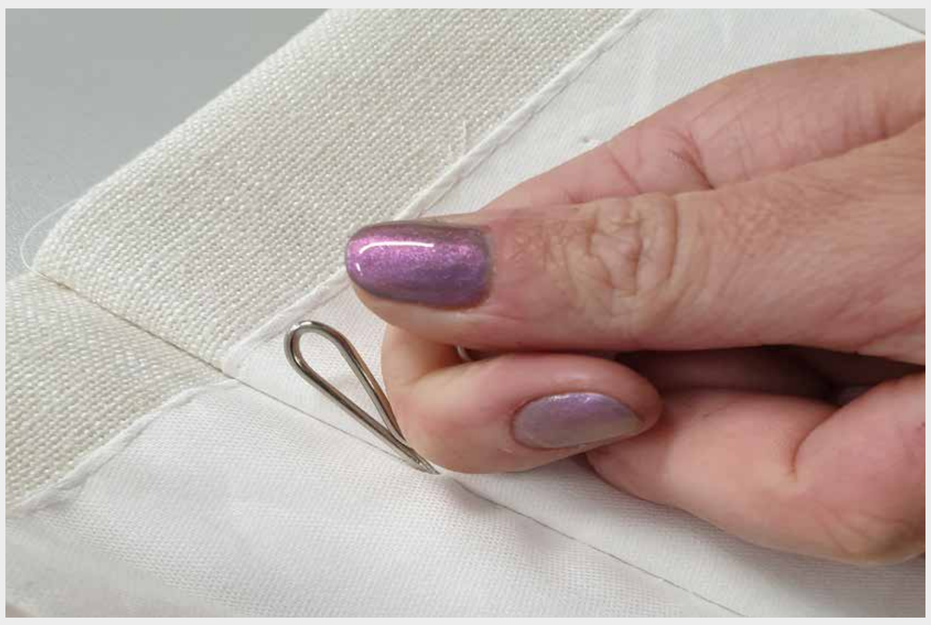
> Before we got the hook insertion tool, putting metal hooks into the curtains caused a lot of pain to the fingers, especially with the thicker fabrics, as it required force to push the metal hooks into the fabric.
>
> The tool gives more leverage, so the hooks slide in easier, and now there is no pain in fingers and hands.

EST. 1935
HERBERT PARKINSON TEXTILES
THE JOHN LEWIS & PARTNERS LANCASHIRE FACTORY

Chartered Institute of Ergonomics & Human Factors

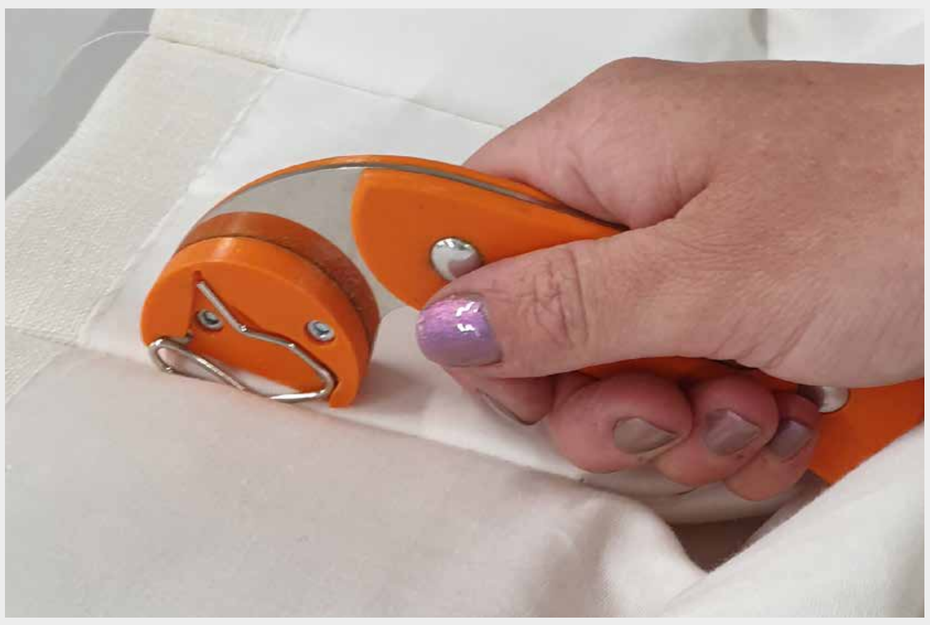
HSE

BEFORE



- Previously, partners in the packaging and inspection team were inserting up to 200 metal pin hooks into curtain headers by hand every day.
- The challenge was that this activity involved repetitive upper limb work and partners found the pins difficult to grip and hold, leading to reports of musculoskeletal discomfort.
- The metal pins were also causing other problems such as cuts and infections in partners' fingers.

AFTER



- The team putting pins in the curtains came up with the idea of a tool trialled prototype before the finished tool went into production (for everyone to use).
- Through a collaborative approach between partners and the designer, a 3D printed tool was developed.
- The tool was ergonomically designed to fit comfortably in the hand, eliminating the need for partners to use their fingers and mitigating musculoskeletal discomfort.
- A further benefit of the tool was that finger cuts and infections were eliminated.