

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. ”

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.