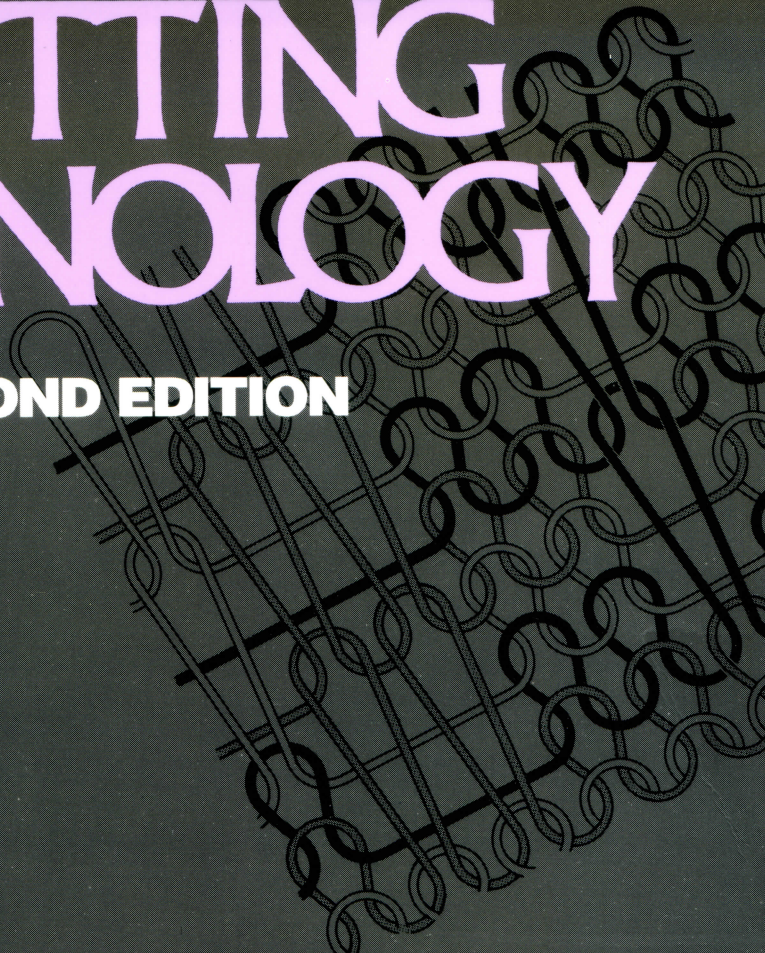


**DAVID J SPENCER**

# **KNITTING TECHNOLOGY**

**SECOND EDITION**



BEDGEAR 1020

IPR of U.S. Pat. No. 8,402,580

WOODHEAD PUBLISHING LIMITED

00001

## 8.7 Development of the Circular Weft Knitting Technique

During the last 200 years numerous inventors have assisted the development of circular weft knitting technology towards its present state of sophistication and diversity. Whilst Decroix's patent of 1798 has been considered to be the first for a circular frame, Marc Brunel's 'tricoteur' of 1816 is probably the first practical working example of such a frame. Efforts were concentrated, during the subsequent 30 years, on improving the knitting action of this frame with its revolving dial of fixed needles radiating horizontally outwards and having their beards uppermost. In 1845, Fouquet applied his Stuttgarter Mailleuse wheels to the frame and their individually moving, loop-forming sinkers provided the sinkerwheel frame with the capability of knitting high quality fabric, a possibility later exploited by Terrot who improved its patterning facilities and marketed the frame throughout the world.

In 1849, Moses Mellor produced a revolving circular frame with vertically-arranged bearded needles facing outwards from the needle circle, this later developed to become the loopwheel frame. In the same year, Matthew Townsend patented uses for the latch needle and by 1855, Pepper had produced a commercial machine with a single set of movable latch needles and two feed points, this was soon followed by Aiken's circular latch needle rib machine of 1859 which also contained movable needles. Henry Griswold took latch needle knitting a stage further by moving the needles individually and directly via their bent shanks in his world famous hand-operated, revolving cam-box small diameter sock machine of 1878 (Fig. 4.4).

The first small diameter revolving cylinder machine appeared in about 1907 but there was still much strenuous effort required by machine builders before circular latch needle machines could seriously begin to challenge bearded needle straight and circular machines in the production of high quality knitted articles.

### Further Information

- HURD, J. C. H., Towards automation in hosiery, knitwear and knitted fabric, *Text. Inst. and Ind.*, (1974) 12, (4), 113 (4 pages).
- LANCASHIRE, J. B., 75 years of weft knitting history, *Hos. Trade Journal*, (Jan. 1969) 178-186.
- Knitting machinery: a guide to primary types, *Knit. O'wr Yr Bk.*, (1970) 97-9, 412.

# KNITTING TECHNOLOGY

## SECOND EDITION

**This popular text has been thoroughly revised and updated to provide a uniquely comprehensive textbook and fully indexed reference work, progressing from elementary principles to more advanced aspects such as microprocessor applications and new areas of research and development.**

**The volume covers the technology of both weft and warp knitting, fabric structures and products, the different types of machines, principles of production and terminology. The book also contains problems for solution and worked examples. SI and Imperial units are used according to preferred practice in the industry. The appendix contains much useful information on professional bodies and trade associations, together with a useful guide to further sources of information.**

Woodhead Publishing Limited  
Abington Hall  
Abington  
Cambridge CB1 6AH  
England

ISBN 1 85573 313 7

WOODHEAD PUBLISHING LIMITED

000003