

## Caned Furniture By Dr. Brian Crossley

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### Introduction

This case study seeks to focus on one particular Asian material, rattan, and its relationship to changes in furniture design and production skills. In doing so, it highlights the ways in which one commodity (which was initially treated as a waste product) can illuminate our understanding of the multiple links that existed between the material worlds of Asia, America and Europe from the seventeenth to the nineteenth centuries.

The author, Brian Crossley, is a retired Chartered Civil Engineer and a second generation chair caner. His mother (who commenced chair caning as a ten year old in 1918) taught him the craft skills on two Victorian chairs shortly after his marriage in 1958, which helped to furnish his first home. She then guided him to a thorough understanding of the craft and he has subsequently and continuously re-caned all types of furniture for many and varied clients. He has taught others for a number of years and undertakes research into the world-wide development of this type of furniture. At various times living and working in the Middle East, managing a Department for International Development project in Bangladesh and travelling to Asia on business, he has been afforded opportunities to examine and study at first hand the materials and craft of chair caning. He is a Yeoman Member of the Worshipful Company of Basketmakers.

The first caned furniture appeared in England around 1660, but its route to London is the subject of much speculation. Certainly, from the mid-fifteenth century onwards the Portuguese traded in all those areas of the Asia where the raw material grows and was used, but their prime objective was to obtain high value pepper and other spices. One theory is that Catherine de Braganza from Portugal brought caned furniture with her to London when she married Charles II in 1661, but there is no evidence for this. John Evelyn's diary mentions her bringing lacquered furniture but not caned furniture, or 'cane furniture' as it was then described. Customs records do not help and, whilst they later record the export of caned chairs made in England, there is no reference to importation of this type of chair.<sup>1</sup>

However, it is as a direct result of trading in South East Asia that caned furniture became very fashionable in England in the 1660s and possibly earlier.<sup>2</sup> Virtually all caned furniture is evident as chairs, although a very small amount of other caned furniture items has been produced. This case study focusses upon the use of cane in making chairs.

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<sup>1</sup> Maria Conceição Borges de Sousa, *Portuguese Furniture: collection guide* (Museu Nacional De Arte Antiga, 2000), p. 30. 'It [canework] was part of the furniture taken in the Queen's trousseau to England and was quickly accepted in English fashion'. Subsequent discussion with the author seeking the source of this statement indicated that this was recorded in John Evelyn's Diary, but examination of the diary does not mention caned furniture.

<sup>2</sup> David Dewing, 'Cane Chairs in London 1670 -1730', *Regional Furniture Society*, 12 (2008), p. 54.

## Material Exchange

The material used to weave caned panels in furniture is commonly known as ‘cane’ and is from the Rattan Palm Tree which grows in the rainforests of Malaysia, Indonesia, Borneo and small areas of China, India and Sri Lanka. The major exporter is Indonesia which today produces 85 per cent of the world’s supply of rattan.



Figure 1. The Calamus Genus of Rattan Palm Trees grow between the green boundaries. Courtesy of John Dransfield, former head of palm research at the Royal Botanic Gardens, Kew.

The Rattan Palm tree is unusual in that it is not free standing like a normal tree, but climbs seeking light. Stems, or vines, rise from ground level climbing through the forest canopy and can grow up to 150 metres long being covered with vicious spikes. The vines are unusual in having the same diameter for their full length and a solid core. They are particularly characterised by their strong tensile strength and were used in the past as rigging for Chinese ships and, until recently, as the cables in pedestrian suspension bridges constructed in remote areas.



Figure 2. Rattan pedestrian suspension bridge in the Malaysian rain forest before the First World War. From the archives of Fred Aldous Ltd, Manchester who have traded in rattan since 1860.

There are hundreds of different forms of this climbing tree of the *Calamus rattan* genus with different features, but only a very small number are suitable for chair cane. The most common used is *Calamus Caesius*.<sup>3</sup> Malacca Cane comes from the same genus and was imported to England in vast quantities for, and as, walking sticks during the eighteenth and nineteenth centuries. They were used by teachers to punish children in the nineteenth and twentieth centuries. It is important to appreciate that chair cane is not Bamboo, which is a free standing grass growing up to 20 metres high. Its hollow trunk varies in diameter from the ground to the top like a conventional tree. We are familiar with this in the UK as the humble garden cane and, due to its strength in compression it is used across Asia as scaffolding.

The long vines of the specific Rattan Palm tree are pulled down from the forest canopy by people living in the rain forests. They are then cut into approximate 6 metre lengths. Traditionally, the

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<sup>3</sup> John Dransfield, *A manual of the Rattans of the Malay Peninsula* (1978).

spikes covering the outer surface were stripped off and then leaf nodes rubbed off by hand using sand and water. Modern practice is to undertake most of these operations by industrial processes.

Vines used for chair cane have a diameter in the range 10 – 20mm and these 6 metre lengths are called ‘rattans’ as recorded in the Customs Records 1697 – 1870.<sup>4</sup> The rattans originally arrived in London as packing or ‘dunnage’ around the bags and chests of tea and spices, to prevent these very valuable cargoes moving on the long sea journey from various locations, where East India Company (EIC) factories (warehouses) consolidated different items of cargo prior to loading for departure.<sup>5</sup> Singapore was the main factory used by the EIC for the supply of rattans. On arrival in London, the rattans were initially a waste material and basketmakers saw the opportunity to use the material as a free substitute for willow, which has similar characteristics. However, due to this use, first in baskets and then for caned furniture and other uses, rattans were subsequently imported by the EIC in vast quantities to London from the late seventeenth century as a distinct commodity, albeit of very low value.

Cane used for weaving panels in furniture, is the outer skin or bark of the rattan vine. Originally, lengths of rattan would be split into thirds or quarters lengthwise by hand and then the required width and thickness of the cane could be achieved by a process of drawing these split lengths through pairs of sharp blades. The first attempts produced cane that was wide and of variable quality but by 1700, these hand techniques had improved to such an extent that very narrow cane of good quality was being produced. Cane for furniture made in England was processed manually by apprentice basketmakers and others during the period under consideration, but later developments in machine processing from around 1860 in America and Germany, meant that hand processing in England eventually became redundant. Hand processing still continues in some rural locations of South East Asia. The main centre for machine processing rattan in Europe was in Hamburg, but now virtually all machine processing is undertaken in the country where the rattan palm tree is harvested.

## Design Encounters

The traditional technique for weaving a caned panel requires a series of holes around the perimeter of the panel. This concept was used by the Egyptians from around 1800 BC for beds and stools, however, the woven material and pattern is different to the caned furniture evident in England from the late seventeenth century.<sup>6</sup>

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<sup>4</sup> The Author has analysed import and export of rattans to and from London and other UK ports detailed in the Customs records 1697 – 1869 held at the National Record Office, Kew, typically referenced ‘Cust 3’ for each year. The source was noted as ‘East Indies’ but after 1780, specific ports of origin were identified.

<sup>5</sup> See C. J. A. Borg, *Porcelain and the Dutch China Trade* (1982), p. 51. Here Borg describes Dutch practices for cargo loading. ‘The space at the side was filled with half and quarter chests [of tea], smaller gaps with nankeen and rattan.’ On pages 52 and 53, he shows a typical loading plan and cross section through the hull of the vessel.

<sup>6</sup> G. Killen, *Ancient Egyptian Furniture Vol. 1. 4000-1300 BC* (1984). Illustrates and details many example of furniture with holes around a frame.



Figure 3. Egyptian stool showing holes round the seat through which palm leaf fibres are woven.  
British Museum. Image courtesy of author.

Arab and Greek traders were working around the coastlines of Africa and South East Asia trading in spices and many other items for centuries as well as trading on the overland Silk Route, before the first Europeans sailed round the Cape of Good Hope. Also the Chinese were trading in the Red Sea in the early fifteenth century, but it is doubtful that the concept of holes around a panel transferred from Egypt by these traders to other locations. It is probable that this concept emerged independently in Asia, possibly China.

In China it was normal to sit on the floor or low platforms. However, folding chairs with woven textile or leather seats were used by groups moving around the country. Rigid framed chairs came into use in the tenth century.<sup>7</sup> Initially these chairs had wooden seats. Then, in the Ming Dynasty (1368 – 1644), decoration was added on top of the wooden seat by the use of woven cane or more valuable materials. A major development was when the wooden seat was replaced by thin palm fibre ropes woven through holes around the seat to provide not only the structural support for the decorative layer but also a more comfortable seat. Ultimately the supporting palm fibre ropes were dispensed with and cane was woven through the holes around a panel, becoming the structural seat in its own right but in a different woven pattern.<sup>8</sup> Another theory about the origin of caned chairs is that the use of woven cane seating was established in India and Buddhist monks took stools with them to China which utilised this technique on the seat.

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<sup>7</sup> C. P. Fitzgerald, *Barbarian Beds: the origin of the chair in China* (1965).

<sup>8</sup> Wang Shixiang, *Connoisseurship of Chinese Furniture: Ming and Early Qing Dynasties. Vol 1* (1990).

The use of woven cane in furniture is obscure, but its use was widespread throughout the tropics in India, Ceylon (Sri Lanka), Burma (Myanmar), Malay Peninsula, Moluccas, Philippines, southwest China and the islands of Java, Sumatra and Borneo. David Dewing notes, 'The use of cane for chairs was almost certainly inspired by its use on chairs made in India, Ceylon, and Indonesia for Europeans, first for the Portuguese and later for the Dutch and English.'<sup>9</sup>

In China, cane was woven in various patterns to decorate the top surface of the wooden seat, but the most popular pattern which emerged as the caned structural seat, is one that has been in use from at least 250 BC.<sup>10</sup> This is known as the 'six-way pattern' and is used on virtually all caned panels, from the time that cane alone was used for the seat, until today. The use of holes around a panel, through which cane is woven in the six-way pattern, is believed to be the origin of the caned chair as we now know it.

Cane is currently available in the United Kingdom in seven different widths. The width(s) chosen to weave a panel seek to achieve a balance of cane to open areas - not looking too flimsy or too crude. Strangely, the widths of cane used in North America are different to those used in the UK, as are those used in mainland Europe, but the six-way pattern is common throughout the world. This pattern uses two lengths of cane in each hole going from front to back of the seat, two lengths of cane in each hole going from side to side which completes the square grid. Then two single diagonal lengths going from 'Liverpool to London' and from 'York to Yeovil' – terms used by chair caners!



Figure 4. Child's caned chair used by John Ruskin, showing the typical 6 way pattern on both the seat and back panels. Chair re-caned by the author. Image courtesy of author.

<sup>9</sup> Dewing, 'Cane Chairs in London', p. 76.

<sup>10</sup> 'Report on the Excavations at Huixian County', *Archaeological Institute of the Chinese Academy of Sciences*, (1956), p. 77. The pattern was impressed in sand from a basket which had decomposed.

### Skills Transmission / New Skills

In the absence of definitive evidence, early examples of caned chairs in England were likely to have arrived either as gifts from eminent persons in Asia to members of the aristocracy, or possibly as curios brought back from Asia by Captains and Officers of the EIC. These would be a part of their entitlement from the Company to import a certain amount of 'private trade', from which they might earn ten times their salary.<sup>11</sup>

The fashion for (and corresponding manufacture of) caned furniture in England, occurred in three periods. The first was from around 1660 until 1730, the second from 1790 until 1820. Demand then erupted around 1850 with the impact of industrial manufacture and continued until around 1920. Periods of fashion in mainland Europe for caned furniture were generally later than the corresponding periods in England. The range of chair frame designs using caned panels is almost infinite, but each of the three periods noted above had specific designs. Shortly before and then after the Second World War, Scandinavian and German designers very successfully used cane (in different patterns to the traditional six-way pattern) in many new designs of chairs.



Figure 5. First period: 1660-1730 (see left). Chair, c.1710. Chair re-caned by author. Image courtesy of author.

Figure 6. Second period: 1790-1820 (see below right). Chair, c.1810. Note the carved rope which acknowledges the Battle of Trafalgar in 1805. Chair re-caned by author. Image courtesy of author.



<sup>11</sup> Antony Wild, *The East India Company: Trade and Conquest from 1600* (2000), pp. 64-5.



Figure 7. Third period: 1850-1920 (see left). Typical Victorian chair made in the thousands in High Wycombe. Chair re-caned by author. Image courtesy of author.

Figure 8. Fourth period: 1920-1950 (see right). First designed in 1927 by Ludwig Mies van der Rohe and still in production by Thonet Mundus. Chair re-caned by author. Image courtesy of author.



It is relevant to note that while Holland has been assumed by some to be the original European centre for the demand and making of caned chairs in the late seventeenth and early eighteenth centuries, it was only in England that the production of caned chairs became a major industry during the period under consideration.

Furniture making in England, was initially located predominately in and around St Paul's Churchyard, London. Initially caned chairs were of plain design, but improved carving and quality also meant that they were bought for more fashionable homes and the royal palaces. More significantly, after the Great Fire of London in 1666 destroyed 13,000 houses the demand for affordable and light furniture, such as caned furniture, grew. Consequently the manufacture of this type of furniture grew quickly and developing into an important trade. The specific trades of cane chair maker and chair caner evolved to become major crafts within the City of London, satisfying the market for every day and high quality caned chairs.<sup>12</sup>

Significant quantities of the caned chairs made in London were exported, causing indignation amongst upholsterers, for their traditional export trade suffered as a consequence of this new fashion. This loss of trade was so great, that in the late seventeenth century upholsterers submitted two petitions to Parliament to enable them to recover their lost trade by stopping the chair caners exporting, but both petitions were unsuccessful.<sup>13</sup> At the same time as caned chair

<sup>12</sup> H. H. Bobart, *Records of the Basketmakers' Company* (1911), p. 55.

<sup>13</sup> R. W. Symonds, 'English Cane Chairs', *The Antique Collector*, (1937). Also see R. W. Symonds, 'English Cane Chairs Part 1', *Connoisseur*, (1951), which details the content of the petitions.



makers were exporting their products, chairs made to European designs were being made in India, Ceylon (Sri Lanka) and China, mainly for the use of Europeans living in these locations.

When staff of the EIC, Army and many other professions moved from England to foreign destinations they took furniture with them for use both in the ship's cabin and also in their new home.<sup>14</sup> On arrival they often had more furniture made by local artisans to match the English designs, with chairs having caned seats which were more comfortable in hot climates.<sup>15</sup> However, chairs made to English designs (often embellished with local decoration and materials) were expensive and mainly designed for wealthy officers of the EIC and similar clients, rather than the larger expatriate market. Staff returning to England would typically sell their furniture locally and use their 'private trade' allowance for more desirable items to sell at a profit on returning to England. Surprisingly there are examples of persons bringing low value goods with them, including rattans.<sup>16</sup>

An interesting development was in the provision of 'Campaign Furniture' enabling persons to enjoy a similar standard of living as they would at home. With the major growth during the period in those travelling to all parts of the British Empire and other parts of the world (civil servants, business men, engineers and the EIC), there was a need for furniture designed to be light and collapsible. Most furniture makers and retailers in London, including high quality suppliers, saw this as a significant opportunity and were very inventive in the designs they evolved. To achieve lightness and for comfort in hot and humid climates, cane panels were used in all manner of items, for example chairs, cots and beds.<sup>17</sup>



Figure 9. Child's Cot assembled for use. Courtesy of Christopher Clarke (Antiques) Ltd, Stow on the Wold.

<sup>14</sup> A. Jaffer, *Furniture from British India and Ceylon* (2001), p. 95.

<sup>15</sup> E. T. Joy, 'The Overseas Trade in Furniture in the nineteenth century', *Furniture History Society*, 6 (1970), p. 66.

<sup>16</sup> H. B. Morse, *Britain and the China Trade Vol. 1* (1926), p. 196.

<sup>17</sup> N. A. Brawer, *British Campaign Furniture: Elegance under Canvas 1740-1914* (2001).



Figure 10. Child's cot dismantled for transport. Courtesy of Christopher Clarke (Antiques) Ltd, Stow on the Wold.

Around 1680 the first imported examples of caned chairs made in England appeared in North America following fashions in England. As a result, local and immigrant craftsmen on the east coast of America were soon adopting the concept of caned chairs. While chair designs initially followed European forms, they developed their own unique styles using local timbers.<sup>18</sup>

The EIC was given a monopoly on all English Trade to the east of the Cape of Good Hope – which the company eventually stretched to cover the whole globe, for example they would be later trading for furs in Vancouver. There is no record in the Customs Records of Exports, of exporting rattans from London to the North American colonies although the records show exports to many other locations, mainly in Europe.<sup>19</sup> After the 'Boston Tea Party' in 1773 and the signing of the Treaty of Paris in 1783, American ships were then free to sail the world in search of commerce.<sup>20</sup> Caned furniture made on the east coast of America, initially used cane imported as whole rattan (often in whaling ships), but rattan processors and furniture manufacturers then built their own fleets of ships specifically for trade from Canton. A new design of caned furniture was developed based on Chinese chair designs and willow furniture made by German immigrants, known as

<sup>18</sup> Benno M. Forman, *American Seating Furniture* (1988), p. 236. Here Forman indicates that the first caned chair was made in America around 1689.

<sup>19</sup> The Author has analysed import and export of rattans to and from London and other UK ports detailed in the Customs records 1697 – 1869 held at the National Record Office, Kew, typically referenced 'Cust 3' for each year. The source was noted as 'East Indies' but after 1780, specific ports of origin were identified.

<sup>20</sup> J. Adamson, *American Wicker* (1993), p. 18.

'Wicker furniture'. This used the whole rattan as the frame and included panels of woven cane and other embellishments, at times becoming very ornate.



Figure 11. American wicker chair made of whole rattan, wood and caning around 1895 by the Wakefield Company.  
Copyright Kit Latham.

The trades making caned chairs remained in London for over 150 years. At the beginning of the nineteenth century, however, furniture making moved to High Wycombe as transport links improved and demand became too great for makers in London. Initially a cottage industry, caned chair making soon developed into a large industrial manufacturing activity. There was already a tradition of furniture making in High Wycombe entirely in wood, utilising large areas of beech forest in the locality. These important resources of wood and furniture making skills provided the basis for producing caned furniture. The caned panels in such furniture were all woven by hand and, despite production becoming a factory scale environment, the weaving of cane was still undertaken entirely by hand, initially in the homes of residents of the town.<sup>21</sup> It was in this location that a small number of alternative cane weaving patterns were devised which were quicker to weave, but they had limited success due to being unstable in use.

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<sup>21</sup> L. J. Mayes, *The History of Chair Making in High Wycombe* (1960).

The bulk of caned furniture made from the mid-nineteenth century to the early twentieth century was for the mass markets in the United Kingdom, particularly the rapidly developing Industrial North. However, the makers of high quality caned furniture remained in London, with the particular exception of Gillows who continued to produce very high-quality caned furniture throughout the period in Lancaster where they were originally established and later in London.<sup>22</sup>

It was not until Michael Thonet developed bentwood furniture (most of which was caned) into a very major industry in Austria and Eastern Europe from 1845, that England ceased to be the major European producer of caned furniture. Despite the innovative techniques devised by Thonet to bend solid wood in three dimensions, it was principally the development of machine-processed rattan (in Hamburg) and improved rail connections through Europe, that turned caned bentwood furniture into a very major international industry.

Worldwide demand for caned furniture after 1850 was remarkable, when coupled with developments in the industrial manufacture of chair frames developed in various European and American locations. This applied particularly to the bentwood chair patented by Michael Thonet in Austria and American Wicker chair makers, who both exhibited at the 1851 Great Exhibition at Crystal Palace. Production of traditional caned chairs continued on a large scale in England until the start of the First World War, coming to an end in the 1920s. There was an attempt to revive the use of rattan in 1907 which continued after the First World War, by Dryad of Leicester, coming to an end in the 1930s as fashions changed and new materials became available. They initially adopted the American wicker chair concepts but soon changed to German and Austrian designs which used 'centre cane' (the core of the rattan palm tree vines) in a closely woven pattern similar to that used in basketmaking.<sup>23</sup> This style of caned furniture has been recently revived.

A new technique to weave cane by machine which was then locked into a groove, was devised in USA in the mid-nineteenth century.<sup>24</sup> Machine woven cane was not generally used in Europe until after the Second World War. Virtually all modern caned furniture now uses this technique – sometimes doctored to look like hand woven caning.

In certain periods (particularly the Regency period), cushions were used on the cane seat either as a part of the design or for comfort. Cane panels were also used in chairs as springing under upholstery before the advent of steel coil springs and examples are found in a few high quality chairs.<sup>25</sup> Whilst the use of cane in woven seat panels normally comprises one layer for seating purposes, in locations where the seat will be used in differing weather climates, two layers of

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<sup>22</sup> S. E. Stuart, *Gillows of Lancaster and London, 1730-1840* (2008).

<sup>23</sup> Pat Kirkham, *Harry Peach* (1986). Kirkham's volume explores the story of Harry Peach and 'Dryad', his venture into cane chairs.

<sup>24</sup> 'A completed century 1826-1926: The story of Heywood-Wakefield Company', *The Company* (1926), pp. 15-16. This article discusses the invention of machinery to weave cane by William Houston, a Scotsman from Paisley, and machines to cut the peel from the whole rattan whilst preserving the core intact.

<sup>25</sup> L. Wood, *The Upholstered Furniture in the Lady Lever Art Gallery* (2008).

seating are provided using a reversible seat frame – a caned layer for hot climates and leather on the reverse face for cold climates.<sup>26</sup>

### Other uses of rattan

The quantities of rattan imported into London from the late seventeenth century were substantial even allowing for some quantities to be exported, as recorded in the Customs Records.<sup>27</sup> However not all rattans were used for caned furniture and this produces difficulties in calculating the number of caned chairs made in any period based on the number of rattans imported in the period. In the process of undertaking research some intriguing applications have been discovered.

An obvious use is in baskets of all types. In Scotland, bundles of jute for linoleum were tied with rattan, which was salvaged to be made into fisherman's baskets.<sup>28</sup> Rattans exported to Gibraltar from London were found to have been used to make large gabions (baskets) which were filled with sand for use in military defences.<sup>29</sup> Made in large numbers throughout the period were walking sticks and fish traps of various designs. Rattans of different diameters were also used in umbrellas, crinoline hoops, ski sticks, sewer rods, chimney sweeps sticks, armament baskets and broom handles, before more suitable modern materials took their place.

A use of rattan, which has defied explanation for some time, is 'cane sashes'. This was used in conjunction with the term 'cane chairs' on Furniture Maker's Trade Cards who typically worked in St. Paul's Churchyard in the late seventeenth century. In mid-2013, a number of cane sashes made from whole rattan were discovered in a country house in West Yorkshire. They were used to place behind glazed windows of 'below stairs' rooms on the front of the house, to prevent visitors from looking into these rooms.

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<sup>26</sup> B. Crossley, 'Maritime Caned Chairs', *Regional Furniture Society Newsletter*, 58 (2013), p. 4. This type of chair was installed during a refit on the RRS Discovery used in polar exploration.

<sup>27</sup> The Author has analysed import and export of rattans to and from London and other UK ports detailed in the Customs records 1697 – 1869 held at the National Record Office, Kew, typically referenced 'Cust 3' for each year. The source was noted as 'East Indies' but after 1780, specific ports of origin were identified.

<sup>28</sup> *Basketmakers' Association Newsletter*, 132 (2010), p. 9.

<sup>29</sup> Exports of Rattans to Gibraltar 1728 – 1766 in the Customs Records of Exports from London. Discussions with the Gibraltar Museum in 2006. Whole rattan was used to create sand filled gabions (baskets) as defences, after all available wine barrels had been used.



Figure 12. Window sash before restoration, made from whole rattan in various diameters. Image courtesy of author.

## Conclusion

Very little has been written about the history of rattan and its use in caned furniture. It has proved difficult to find definitive details in many situations, but the above information has been collected and refined over a long period and the sources checked where possible, so it is presented with reasonable confidence. The origins of caned furniture are in South East Asia, but it is the development of the design and skills in London and then in High Wycombe from the mid-seventeenth century to the mid-nineteenth century, which contributed to the subsequent significant expansion and further development of such furniture outside England. Current traditional caning activity by a small number of skilled crafts persons in the United Kingdom is centred on the re-caning of existing furniture, generally pre 1940. Virtually no caned chairs are now being made for the material is currently out of fashion - but who knows what the future holds?