

## ROPEWALKS AND ROPEMAKERS OF BRISTOL

### Joseph Bryant

In 1965 ropemaking in the traditional manner ceased in Bristol. Manufacture of wire rope continues today but the long history of the craft in the city came to an end when Joseph Bryant's site at Newtown, St Philip's, was sold to Bristol Corporation for housing development and the archaic machinery dismantled and removed for future re-erection in an open-air Museum. Until then, two or three men had continued to produce the hand made church bell ropes for which Bryant's firm was well known and highly regarded, being then one of only three remaining in the country. Few other forms of the hand-made article had been in demand for some years. The decline of the working horse resulted in the disappearance of the market for the cleverly made, tapered rope plough rein and demand for the short rope halter stems had dwindled. A simultaneous growth in the use of synthetic and alternative packing materials together with a rapid increase in mens' earnings brought a virtual end to the old stand-bys for the ropemaker such as packing twine, box cords and sack ties.

A recent resurgence of demand for saddlery and stable equipment has led, happily, to the making of rope halters again. Tom Hemmings, formerly with the Bryant family at the Newtown 'Twine Yard' continues the old craft in Bristol as a result of the spin off from the current leisure riding and pony boom. The present merchandising activities of Bristol Rope & Twine Co, are based on the experience of a former member of William Terrell & Sons Ltd staff. Terrell's continued to produce rope at their Arnos Vale Works until the early 1960's when the plant was closed.

### Early History of Rope

Many forms of rope have been used. In primitive times hide, bark, reeds and rushes, grass and fibrous roots were - and sometimes are still - used. So were animal sinews and hair including human hair. Early civilisations in Egypt, Rome and Greece have left descriptions and depictions of their products which included the use of white flax, papyrus and even bronze wire. Examples have been found estimated to be 3,500 years old. In 200 BC hemp grown in the Rhone Valley was used by the Romans for ropemaking.

An early reference in Britain was to the making of rope on Tyneside 500 years ago and the expression 'May he be struck with a Bridport dagger' illustrated the importance of the industry in Dorset (to the public hangman at least) about 1500 AD.

### Raw Materials and the Bristol Trade

The earliest references linked to the trade in Bristol Archives Office show that, by charter of Edward II, a toll was chargeable in 1317 on hemp brought into Bristol. St Augustine's Abbey accounts record a tithe on what must have been native hemp from 1491 to 1512. There were numerous references in the 17th and 18th century to cargoes of the fibre (and in 1621, in times of economic crisis, restrictions upon imports of it) from the East, Flanders, the Baltic countries and Russia. In 1612 a cargo included 20 tons and 13 cwts of hemp, in 1654, 18 tons

from Amsterdam and in 1773 the captain of the snow *Fanny* was required to ship 90 tons at St Petersburg. Such supplies would probably have represented the raw material for cloth as well as cordage. However, the soft fibres found usually in the stems of plants were the important raw material of good quality ropes for hundreds of years.

Those materials upon which the ropemaking industry of Bristol depended for its existence have now become rarities - subjects now, like the ropemakers of the city themselves, for accounts such as this. The native hemp and flax were supplemented later by imported Russian, Belgian and Irish flax, high grade Russian and Hungarian hemp and eventually, when competitive prices became all important, inferior Bombay and Sunn hemp. In the 19th century the 'hard' fibres from the leaves of plants, like Henequen and Sisal or the superior Manila from the long smooth stem fibres of the Abacus plant added to the range available to an industrialised nation. Coir, the rough brown fibre from the outer husk of the coconut had its special uses because it was cheap and, although it has little strength, it is springy and floats. Jute from India, once a cheap soft fibre familiar for generations, though no longer, as a sacking material, was used in cheap rope and twine. Cotton as a clean, soft white fibre found many outlets in rope and twine - particularly as driving ropes before the advent of more modern power transmission machinery and the once familiar white parcel twine and sash cord.

Eventually steel wire and the ability to spin it began to sweep away its long established competitors - notably for rigging, and especially where great strength and length were required in mines and for winching. Inventions like the spring mattress, metal windows and adhesive tape did away with the need for bed lacing, sash and box cord and parcel twine.

Material from which to produce rope requires tensile strength and flexibility and must be readily available. All three factors have caused the disappearance, to us, in less than a generation, of the natural fibres for all but a few specialised purposes. The rapid development of synthetic fibres since the 1950's reached the point where they became stronger, more durable, more plentiful and cheaper than the traditional natural fibres. However, setting aside monofilament and staple fibre in nylon, polypropylene and polyester, and such names as Terylene, Dacron and Kermantel let us look back again to the days of hemp ropemaking in Bristol.

We can conceive the quantities of fibre rope required to rig and handle the ships of the long era of sail which came to a close only with the beginning of this century. Bristol Record Office has references to the outfitting of many of those which sailed from Bristol. There were many other commercial, industrial, domestic and agricultural uses of rope and twine though few records prior to the 19th century have emerged to detail them. In Bristol, while some manufacturing took place near the harbour, such records which do survive of the Bryant's, for example, show no business with the ship owners. There must

have been many small makers in Bristol and surrounding country districts, as evidenced by place names, and those surviving into this century, whose products rarely found their way to seafaring uses.

### The Ropemakers

Towards the end of the 18th century there were indications that ropemakers were tending to specialise - as were merchant: sailmakers and ship builders. Descriptions such as 'Flaxdressers' and 'Twinespinners' appear more frequently in contemporary records. (The term 'Cordwainer' incidentally, should not be confused - it describes a bootmaker). Little record of the activities of the ropemakers themselves exists in Bristol possibly due to there having been no Guild as was the case with the other trades. The roll of Burgesses (Freemen of the City - who, alone, could trade and vote) provides some indication of the relative importance of the trade. Only a Freeman of the City could engage in business on his own account and the numbers admitted by apprenticeship, marriage, as sons or by Mayor's orders appear thus.

### Admitted to the Freedom of the City as Ropemakers

1600 – 1650	21
1700 – 1750	97
1550 – 1600	11
1650 – 1700	39
1750 – 1800	103

The lack of any surviving business records means that we do not know how many such men were in business on their own account as we think of it today. Certainly some of them were because they are known to have leased premises and to have traded. The names of certain families such as the Greens recur. It was to Jane Green, widow of Francis, that a boy, Joseph Bryant, a miner's son from the village of Stoke Lane in Somerset was apprenticed in 1711. She was evidently continuing her late husband's business in Temple Parish, almost certainly using the Ropewalk on the site of present day Temple Back. Her address, at which her successors continued to trade, was in Tower Lane where the railway goods yard was established, straddling the line of the old town wall and Tower Haratz, near the river at Temple Meads. It is not clear where Joseph worked when he was admitted a Freeman in 1718 having served his 7 years apprenticeship but he married and took his younger brother apprentice. His son John is recorded some years later trading on his own account at Bedminster Causeway (later Parade). Father and son voted in a parliamentary election in Bedminster in 1754, Joseph having formerly cast his vote in the Parish of St Philip and Jacob in the election of 1739 (as did a Francis Green).

However, the sites where the manufacture of rope, twine and cordage or the spinning of yarn are known to have taken place are relatively few and it would seem that the craftsman, in many cases, may have worked for another, possibly his master during his apprenticeship or, perhaps, made use of the common 'ropery' (another term for a place where rope was made), maybe on a co-operative basis of some kind. A third possibility is that many worked in a small way in places which went unrecorded and do not appear on the early maps of the

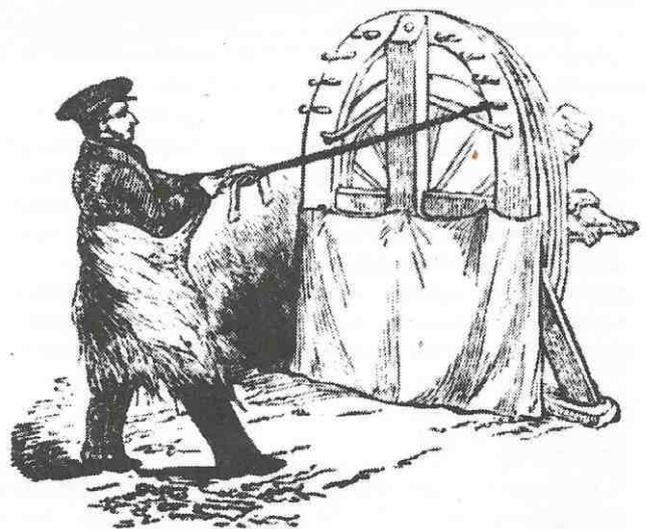
city. It is possible, as is happening at present, to produce short work in a small space having brought in the spun yarn as the raw material. The process of manufacturing by hand required a starting length of one third or half as much again of the length of the finished product - this to provide for the effect of the twisting. Such being the case it is possible to produce useful lengths of cord of, say, 30 yards on a narrow strip of ground no more than 50 yards long. Such work may have taken place almost anywhere on waste ground, in a garden, or alongside a path or stream.

A significant exception would have been the much longer ropes required for the rigging of ships. It may be for this reason that all the early recorded sites are close to the harbour although we must remember it would only have been a short walk to cross the entire town in those days and even into the present century much of the output of the small ropewalk was transported by hand cart. Another factor in such siting on the river, and later on the harbour banks, would have been the unsuitability of the ground for many other purposes due to its soft nature and liability to flooding - precluding much storage or building upon it.

### The Process of Ropemaking

An outline of the way in which a rope is constructed will here help to illustrate further the nature of the sites occupied by ropemakers and their trade, perhaps the main point of this account. Here the natural, traditional material is used for the illustration.

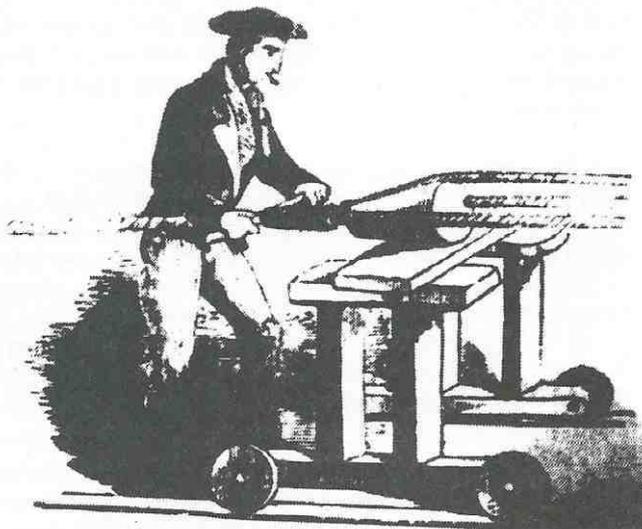
The fibres which go to make up the finished product - whatever its size - are first 'hackled' to break up the lumps in which they are found after the early processing of the plants which provide them. It is a coarse combing action carried out by first beating, then dragging the fibres over strong upward pointing steel spikes, later done by machine. The longer fibres, which make a stronger subsequent product, become known as 'line' while the shorter ones are called 'tow' a fluffier looking fibre at this and subsequent stages compared with the soft, silkier appearance of 'line' fibres.



The fibres are then 'drawn', in the case of the earlier makers by hand, the spinner walking backwards over the ground from the twisting wheel with, around his waist, a bundle of fibres

from which he pulled the supply to feed into the twist. The early terms, 'spinning' or 'twisting' house derived from this activity. In the later machine process the drawing out stage is known as 'carding' from which the ribbon like strands are fed to the stationary spinning machine. The fibres have now become 'yarn' and have some twist - enough to keep them together.

The principle of ropemaking is that several yarns twisted together in the opposite direction to that of their individual twist will remain together in equilibrium. 'Twine', (string to the layman) is made with a gentle twist of a few yarns. 'Cord' or 'Line' (as the seaman would know it) has more yarns and greater twist. The process then becomes known as 'laying' and the product 'laidcord'. Cords of more than 1 in circumference are known as 'rope' which was usually laid with three, four or more strands formed specially and known as 'readies'. The finished twisted rope is described as 'hawser laid' which indicates the type of make up and the direction of lay. For the larger sizes - above three to four inches circumference - three hawser laid ropes might be laid together (with twist in the opposite direction) to form a 'cable' laid rope - less flexible but hard and compact. Above 10 ins circumference ropes were always cable laid.



The heavy manual work involved, especially in providing the power for twisting before the days of machinery can be pictured. The men were known to be a hardy breed, working in the open air and with materials which can be very dusty and dirty. In the task of setting out the long strands of yarn through the 'walk' as it eventually came to be known, the maker and his apprentices covered many miles backwards and forwards over the 'ground' by which name it was earlier referred to.

### Ropemaking Sites in Bristol

#### St Augustine's Green

A reference has been found in the records of the Minister of St Augustine's Abbey for the year 1540-41. It describes a ropewalk, storehouse and loft.

#### The Marsh

The next earliest recorded site in Bristol appears in a lease of 1591. It is the 'ropewalk' adjoining the city wall in the marsh

- the area now occupied by Queen Square. The site must have included a shed or shelter but it is likely that much of the work was done in the open - as it was yet to be three and a half centuries later. The illustrations on the early maps of the city suggest that the shelter of long lines of trees was sought for the men engaged in the process which involved walking frequently along the lines of yarn stretched between the twisting machinery and a fixed point perhaps as much as 200 yards or more distant. The marsh site was surrendered to the city in 1712 when the west side of the square was built as was another 'ropewalk' nearer to Redcliffe, first referred to in a city rental book of 1615. Millerd's map of 1673 hints at these two sites which must have been in use at that time.

#### St Augustine's Back

There are references to a 'spinning way', 'ropewalk' and 'ropewalk' at St Augustine's Back between 1647 and 1727. This place later became known as 'The Bank' and is now Colston Avenue. Nothing tells us precisely where this site was but it may have been near St Mary-on-the-Quay.

#### Temple Parish

Millerd shows as a 'roping house' a site in Temple Parish east of the 'Rack Close' recently excavated (1975) by the City Museum. Documentary references to this begin in 1639 with a lease to a Thomas Taylor, Ropemaker and by 1745 it no longer appeared. Rocque's map 1750 makes it appear built up and a survey of the parish in 1762 describes Temple Back as 'formerly a rope walk'.

Such is the pattern of most of the sites. Ropemaking did not require much capital equipment or plant installation. It usually occupied ground which was, perhaps, virtually waste at the time and generally at the fringes of the city. Progressively, as the city grew, so did the rope walks disappear, to be re-established further afield. A city ordinance by Common Council proceedings of July 3rd 1651, noting the dangers of the oils, pitch and tar used by the ropemakers in their houses, also required the process to be carried on away from houses because of the fire risk. Both the nature of the fibre used and tarring process employed as a preservative enhanced the possibility of such an occurrence.

The best known site is the one beside the River Frome where Wellington Road now lies near Broad Weir Baths. Older Bristolians even today refer to that street as 'The Ropewalk' and the name now appears again having been given to a new building near the site. The long history of that ropewalk which was known as the Weir or Weare at first appears in the following summary of all the known sites in the city. Brief references are made to known documentary references but it will be useful to know of any others which may not have been recorded. One existed near Ashley Down at the end of the 19th century, adjacent to Victoria Road, now Muller Avenue.

#### St Philip's Hemp & Flax Mills

An interesting link with the hemp and flax trade exists as a result of the establishment of a hemp and flax mill near Broad Plain by the Stephens Brothers in about 1845. The firm commenced spinning and weaving home grown hemp about 1706 and were at Bothernhampton, Bridport, Dorset in the mid 19th century. Their Bristol mill was built on fields and alongside the glass cones where New Kingsley Road now runs. The firm prospered until the 1920's supplying its spun yarn to local ropemakers - including, in the 1870's, the Bryants. When

it declined the Bryant family, then long established in Old Market Street not far away, took space in the mill buildings for its growing canvas goods trade. Later the two firms merged and by the 1960's manufacture of hemp and flax yarn in Bristol had ceased. The mill buildings existed until recently substantially as they were in 1845 though the oldest part has now been demolished.

### The End of the Walk

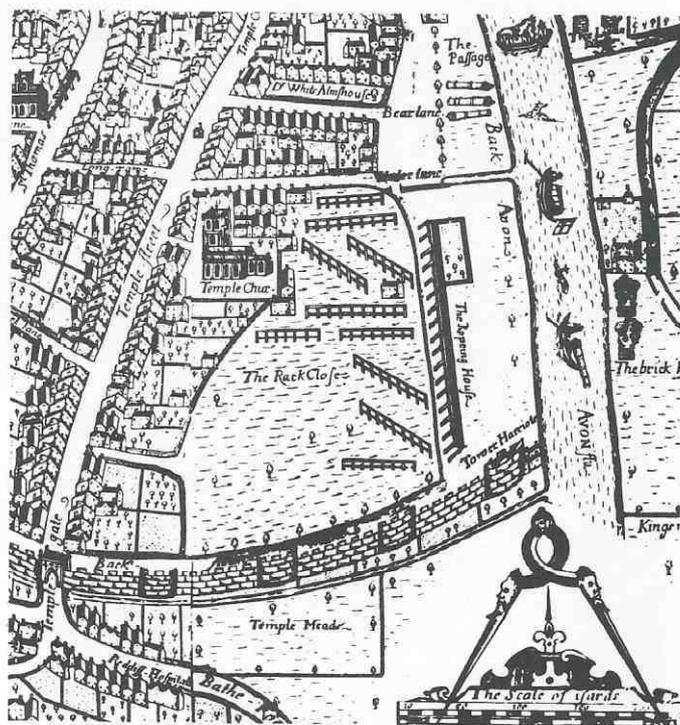
The industrial revolution had its effect on the making of rope and in 1799 Chapman's machine for spinning yarn was described as 'capable of drawing forward the hemp' from the spinner with sufficient twist to combine the fibres'. Other inventions to improve the product followed and, by 1835, one to make wire rope a commercial proposition. This indeed foreshadowed the end of the traditional maker whose numbers, in Bristol, in little more than a century, dwindled to a handful.

The story of the Bryants during that period, though hardly typical, is of historic interest. Each generation was directly involved in the trade and a record does exist from which we can deduce with reasonable probability, their places of work. Uniquely in a family, each of nine generations has enrolled one or more Freeman of the city. The first, Joseph, admitted in 1718 and his brother William in 1734 probably worked in St Philip's. Son John traded at Bedminster Causeway and his son Joseph probably worked near Stokes Croft or Wilder Street having married Anne Oliver, the daughter of a ropemaker in St James. His son, John, married in St Pauls and is likely to have rented a stable in Wilder Street in 1801. In the following, fifth generation brothers John, William and Joseph became Freeman and probably used the Grosvenor Road Ropewalk - at that time an extension of Wilder Street before the development of housing there in the early 1800's - though a reference to Drivers fields on a birth certificate has not been possible to relate. John, known as 'the younger', ran his own business as a twine spinner nearby in Barr Street in 1836 and 1852. Brother Joseph is believed to have emigrated to Australia with his family while William established himself and his young wife Eleanor and two children in Old Market Street in 1848. The business was to be carried on, following his death at 37, by his widow, illiterate at the time of her marriage, for their six young children of which Joseph was assigned it at 29 after his mother's re-marriage. The business, still in his name, remained in Old Market Street until the 1960's while the rope manufactory', opened at Catherine Street, Barton Hill in the 1870's continued production until 1966 for the limited company formed by his son, Arthur William Bryant. He was responsible for introducing new ideas including alternative, electrically driven machinery, albeit fairly basic and more up to date marketing of church bell ropes. Many innovations and a wide range of new products were introduced during the period of 60 years he spent in the business. His sons John and Joseph (the writer) were closely concerned with the rope trade though the manufacture of sunblinds, tents, tarpaulins, canvas goods and awnings subsequently became the predominant business from the 1940's onwards and the rope business diminished. William and Richard, now, themselves Freeman, and brothers and cousins in the ninth generation are having to look elsewhere than the ropemaking trade for their future livelihood.

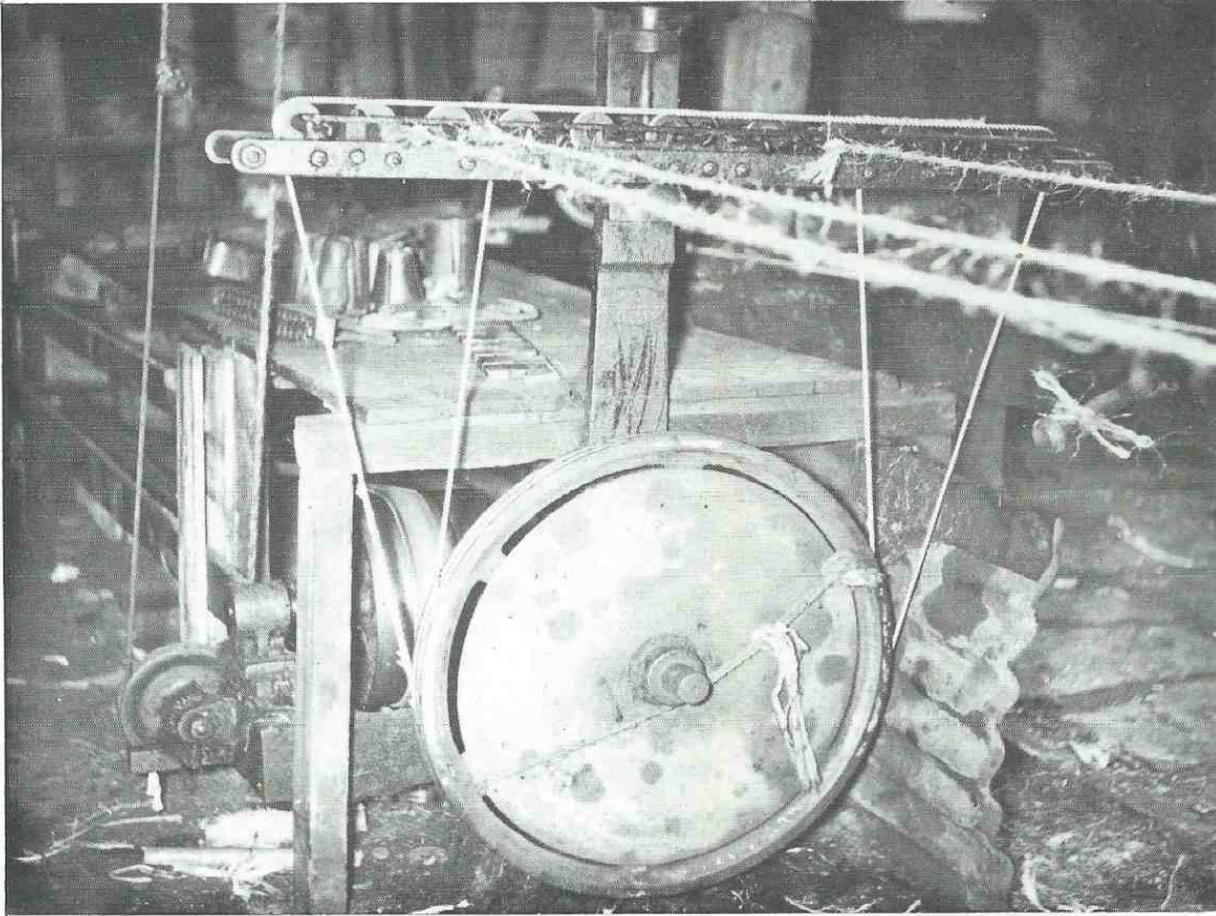
The bulk of rope manufactured in Bristol from the end of the 19th century was to be made on Terrell's machine equipped

walk and, for sizes under 4" circumference, their house machines. Examples of some machines from the Arnos Vale factory are in the care of Bristol City Museum. Restoration work on one or two items has recently commenced with a view to display in a suitable context at M Shed which will house the industrial collection. The plant appears to be of mid 19th century vintage and probably was brought from elsewhere perhaps a naval dockyard, when William Terrell established his works there in 1902 following a serious fire at Canons Marsh. One machine bears the legend 'Chatham Yard' and date 1856. The twisting head foreturn or 'jack' may be seen - a heavily constructed machine capable of working the large sizes of rope for which it was used and the 'top' carrier and traveller, sledge or cart are included. Photographs of similar machines in their settings are seen in a booklet published by a London rope-making firm Frost Bros, in 1906. Almost certainly no other Bristol maker installed such machinery for rope manufacture. This very fact highlights the enormous change which came to the trade in the late 17th and 18th centuries and led to the widening gulf between the traditional hand makers with their very modest mechanisation and the industrialised giants (by comparison). Just as the first industrial revolution led, in the end, to the virtual disappearance of the small maker so has the more recent revolution in industry now concentrated the bulk of British rope production in the plant of a very-few major manufacturers and caused the loss of many others, since the 1930's, to our industrial heritage.

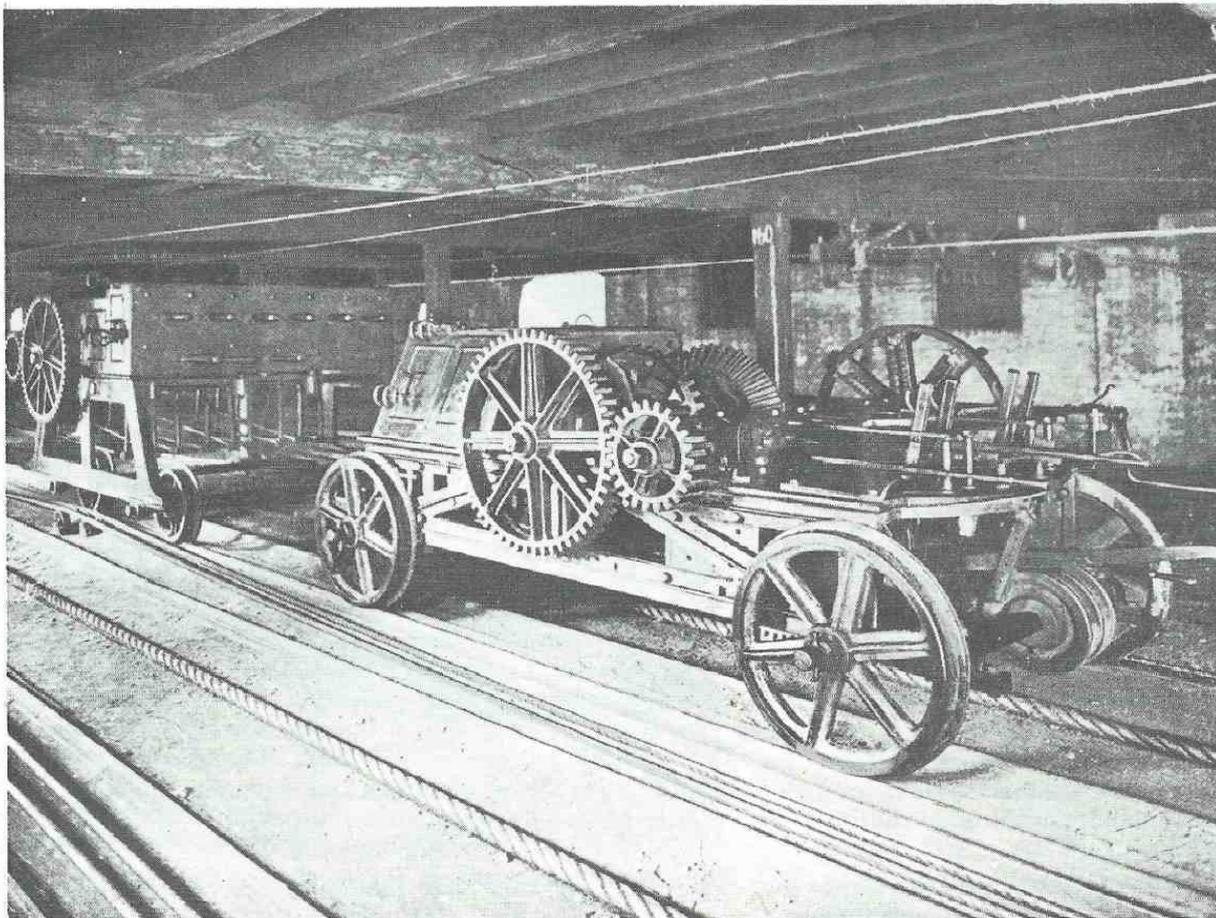
The traditional ropewalk was maintained after the First World War by one or two makers in Bristol for the handmade specialities. It has now had its day and we are left with a few examples of the old machinery preserved for display. They must serve, together with the relatively few records in the City Records and the remaining present day craftsmen in their workshop, to remind us of a trade once so important in the city.



The 'Ropeing house' near Temple Church. Millerd's map 1673.



The twisting machine at the head of St Catherine Street ropewalk, St Philips. Dismantled 1965



Ropemaking machines similar to those used by Terrells.

**Ropemaking Sites**

A list of sites in Bristol where Rope and Twine is known to have been manufactured with notes of documentary references.

**St Augustine's Green**

1540 Minister's Accounts - 'Ropehouse, Storehouse and Loft'

**The Marsh (Queen Square)**

1591 Lease 'Ropehouse' adjoining city wall between south end Marsh Street and St Clement Chapel. (West side of Avon Marshe)  
 1673 map Millerd indicates lines of trees  
 1712 Surrendered to city when west side of Queen Square was built  
 1615 City rental book also records another 'Ropeway' (nearer to Redcliff)  
 1712 Surrendered to city

**St Augustine's (Colston Avenue)**

1647 Rental paid for 'Spinning Way' at St Augustine's Back  
 1685 Reference to St Augustines 'neare the ropeway'.  
 1727 Indenture 'near a place formerly called the ropewalk now .... the Bank' (Colston Avenue).

**Temple Parish or Back Avon (Temple Back)**

1639 Leased by Thos Taylor - Ropemaker  
 1650 Leased by Abraham Wild (Conditions 'that he erect a new building. . . for making of ropes')  
 1673 map Millerd illustrates a long shed named 'the ropeing house' east of Temple Church, next to the Rack Close and called 'Baste Avon'.  
 1750 map Rocque does not show  
 1762 Survey of Temple Parish refers to a road 'formerly a ropewalk'.

**The Weir or Weare (Wellington Road or The Ropewalk)**

1646 Leased - the Castle Mill and piece of ground 'the Mill ham'  
 1659 Will Robert Dowding (Ropemaker) mentioned as holding a ropeway etc in the parish of St Peter  
 1673 map Millerd indicates lines of trees alongside the Frome  
 1685 Leased to Robert Dowding  
 1716 Held by his executors  
 1718 Leased to John Dowding - Mariner  
 1750 map Rocque indicates and names  
 1762 Held by Martha Ballard  
 1773 map Donne illustrates lines of trees  
 1774 Leased to John Bowell, John Vaughan, John Fowler and William Miles who were to fence etc, the 'Ropeway'  
 1780 map Benning illustrates  
 1791 Leased to Miles, Thrissell 81 Jones, Ropemakers  
 1826 map Donne names Rope Walk  
 1831 Surrendered to city

**Radcliffe Back**

1650 'Spinning Way' (Mayors Audit - Rent arrears) Godfrey Morgan 'but he is runned away'

**Wilder Street**

1721 Held by John Holborrow, Ropemaker, beyond the Full Moon Hotel - adjoining 'Home Close' or 'Home Stokes Croft' at the western end and extending 1,353 feet.  
 1723 Joseph Foot - Ropemaker (admitted a Freeman 1740) son of Edward Foot (admitted 1731)  
 1750 map Rocque indicates by tree lines  
 1773 map Donne indicates with tree lines  
 1780 Benning shows lines of trees 'Meer Furlong'

**Canons Marsh (Anchor Road)**

1719 Leased to Jos. Foot, Ropemaker, Chas Nichols, shipwright  
 1750 map Rocque indicates and names  
 1780 map Benning illustrates and names  
 1826 map Donne names  
 1829 Ashmead shows  
 1855 map Ashmead shows  
 1870's Photograph (Reece Winstone Collection)  
 1880-1900 Terrell occupies

**Road to Gloucester (adjacent to Stapleton Road, near Thrissell Street)**

1750 map Rocque illustrates and names  
 1780 Benning illustrates and names

**Wilder Street - Drivers Fields (Grosvenor Road)**

1826 map Donne indicates - just outside city boundary  
 1829 map Ashmead names  
 1855 map Ashmead shows as built up

**Bedminster - near Stillhouse Lane (Philip Street)**

1775 'John Bryant in business at Bedminster Causeway close by  
 1829 map Ashmead names  
 1855 map Ashmead names

**Wapping** - near the 'New Gaol' (Wapping Wharf) known as Adderscliffe (possibly more than one site)

1780 map Benning hints at  
 1780 Leased to Smith Anderson & Co, for a ropewalk  
 1826 map Donne names  
 1829 map Ashmead shows  
 1835 Sketch - Eden depicts site  
 1855 map Ashmead names

**Pylle Hill** - near Hills Bridge (Bath Bridge)

1829 map Ashmead names  
 1855 map Ashmead names

**Newtown** - St Philips (Catherine Street)

1870's Documentary references - Elinor Bryant  
 1965 Closed down - by Joseph Bryant Ltd

**Arnos Vale** - Bath Road

20th cent. Wm Terrell & Sons Ltd  
 c1964 Closed Down but premises extant

**St George** - Saffron Street

1930's Clark & Harrison

**Ashley Down** Victoria Road (Muller Avenue)

20th Cent. Hayman & Miller Twine Merchants (early)

For help in researching this subject the writer wishes to thank Miss Mary Williams, City Archivist, and her predecessor Miss Elizabeth Ralph. Also the late Mr Fred G Webb whose study of the subject extracted many useful references. Mr John Terrell has helped with details of his family's business. Mr George Woodman, formerly Foreman Ropemaker with Joseph Bryant Ltd., and Mr Tom Hemmings, Ropemaker, Bedminster gave first hand information and Mr Reece Winstone useful advice.