Dublin Coopering

A brief account of
The craft and its history

by

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Introduction.

About the time that Johannes Vermeer was admitted a master craftsman of the Delft painters guild, Charles II paid a visit to his loyal city of Dublin, where his cousin James, Duke of Ormond was governor of the Kingdom. On whose advice he issued a number of royal charters which, no doubt, helped to pay for the trip. Amongst these was a document incorporating a guild of Dublin coopers, or Guild of St. Patrick as it was known, because all trade or craft associations were traditionally established under religeous patronage. I have had a copy of this charter for some years and the mediaeval language describing the art and mystery of the craft evoked an echo in my personal struggle to become a painter. The very words implying a skilled knowledge or mastery of the craft, and the means whereby such skills and mastery can be achieved are painstakingly set forth; a rigorous apprenticeship served over a number of years; a period as a fellowcraft; then the presentation of the masterpiece before being admitted a master craftsman of the guild. Why did the system work so well? Why have we largely discarded it?

Let us return briefly to Delft. As far as we know

Johannes Vermeer served such an apprenticeship, his earliest signed and dated work was completed when he was 24 years old. The mere fact that so many of the most successful painters of every age have followed the principle of studying the masters that preceded them, should in itself be persuasion enough that the system works, but it may be that we late 20th century contempories find it hard to understand, because of our attitude toward Technology. We are wedded to a belief in Progress and Change. This has been forced upon us by a century of rapid technological advance. But in the realm of human activities, as opposed to mechanical activities this concept of progress does not apply, human nature changes little. It may be that in art the means and the ends are ultimately indivisable. Techniques come and go, but the technique by itself is never the point of a work. For something that is essentially a human activity, its nature changes little, and this makes the past continuously relevant. The lessons of the masters do not obsolesce, all painting is in essence, contempory.
Therefore my concern is to celebrate craftsmanship using as a vehicle a relatively little known and dying craft. For many centuries the local cooperage was as essential to the well being of the community, as

the local health centre is to-day.
To build a cask requires an understanding of the natural growth process of timber, of the forces to which properly wrought timber may be subjected without failure, and how to employ these forces in equilibrium to give strength and lightness to the container. Man developed this technology milleniums ago, and discovered a formula that has not been improved upon, and is now in the process of discarding this knowledge. May we not need this skill at some future time? When finite reserves of minerals are exhausted, how may one construct an insulated, corrosion resistant, pressure vessel from sunlight.
To sustain the community the possessors of these skills were permitted to form groups which were granted privilage and power so long as they performed their essential function, to regulate and perform the practice of these skills, and to ensure that the knowledge is passed on to the next generation. When they ceased to work to the benefit of the community such groups lost their power and privilage.
Dublin, as a trading centre and [illegible] Coalition of adventurers, who brought [illegible] knowledge and skills with which to found [illegible] city. They were settlers with a hostile [illegible], from which issued a constant threat to their existance. Therefore the

Plate I – 16th Century cooper at work – the figure in the foreground is using a maul and driver. To the right of the picture is an axe in a notched block – a cleaver against the block and a compass resting on the ground. In the background a cask is being tired, in preparation for bending and driving –

the traders and craftsmen not only governed the settlement, but also defended it. This gave rise to a very rigid and exclusive social organisation based on the guild system which worked in the interest of the community in the early centuries of the colony. But as the city absorbed more and more native labour to fuel the expansion of the economy, the social structure was not adjusted to serve the whole community. Had the economic expansion curve continued to rise, re-adjustment might have taken place under the normal social pressures, but political restraints on this thriving colony, instituted from London during the 18th Century, resulted in economic contraction.

The mediaeval craft guilds were unable to resolve the inherent conflict of interests which came about with the gradual emergence of capitalism, whereby the rôle of the craftsman changed from self employed to employer and sometimes to employer. After six centuries the guild system was swept away at the beginning of the 19th century, as artisans and craftsmen deserted the moribund guilds and established their own trade associations or unions. The craftsman's rôle in the social history of Dublin is an important one.

Chapter I

The Antiquity of the craft.

When the first cask was made is not known but the principle is of great antiquity. Wooden casks were known in Egypt in 2,800 B.C. but were only used for dry goods. Between 900 and 800 B.C. Herodotus, in describing curious circular boats made in Armenia and voyaging down the river to Babylon describes their cargo "and it is for the most part palmwood casks of wine they carry down". In the 9th century B.C. in the time of Ahab King of Israel, we read in I Kings chapter XVIII, verse 33, how the prophet Elijah having built an altar and prepared the sacrifice, he said "Fill four barrels with water and pour it on the burnt offering and on the wood". Horace in the 1st century B.C., sings, "he has a cask of Alban wine more than nine years old." (Book 4 Ode xi). In the 1st Century A.D. Pliny the elder, that most prolific writer, ascribes the invention of cask making to the inhabitants of the Alpine vallys. In the 2nd Century A.D. Trajan's column was erected in Rome to celebrate the successful war against the Dacians in eastern Europe. The story of the campaign in bass-relief winds round the shaft of the marble column, and there is a representation of a Roman ship laden with casks, probably wine and vinegar. In the lake dwellings of the Netherlands

dating from about 200 B.C. casks were used to line wells, and examples in the Friesch Museum at Leeuwarden are described as from 6 to 7 feet high, and 2 to 3 feet in diameter, bound with wooden hoops. They have been found in all terpins examined usually at regular distances and deeply buried. For this reason they have survived as they were below the soil water level. In England similar casks were excavated on the site of the Roman city of Silchester and date from circa 200 - 250 A.D. The ends were removed, the grooves being clearly visable. They were made from fir or in some instances Pyrenean pine, and were therefore imported containing wine or oil. The Anglo-Saxons used used small vessels, elaborately made from staves bound with metal hoops. Numerous finds in Jumulae and barrow graves of such small vessels of which the staves and bottoms had long since rotted away. In some examples enough wood remained to be identified as yew, pine and oak. However in Greece the common fermented liquor was wine, which was stored in large pottery fermenting vats or pithoi, and transported in large pottery jars or amphorae. The Romans used similar vessels for they were not a beer-brewing people either. Corperage and beer brewing

were both characteristics of the people well to the north of the Mediterranean. The wooden casks as we know them are said to have originated in Switzerland during the Bronze Age. The shaping of wooden staves demands metal tools of some considerable strength and sharpness, and the manufacture of metal hoops to strengthen the cask was a specialised branch of metal technology. In A.D. 21 Stabo mentions "wooden pithoi" and adds that the Celts are fine coopers "for their casks are larger than houses," and the excellent supply of pitch helps to smear the cracks. Casks soon became common in Italy, certainly by the 2nd century A.D., and the Emperor Maximus is said to have thrown a pontoon bridge across a river with them. The art of coopering and the art of brewing have been closely allied since antiquity. "Wood technology, particularly the use of coopered wooden vessels has dominated the brewing industry for most of its existance. The improvement in wood technology was fundamental to the future of brewing." The art of brewing was not brought to Britain by the Romans, but by the Celts, who had acquired the art by a more northerly route from Babylon. Thus the coming of the Celts to Ireland undoubtedly also introduced their technology.

The knowledge of the craft

The working of wood requires a knowledge of how timber is produced, the growing process. A cross section of a tree shows well defined features in succession from the outside to the centre. Starting with the bark which may be divided into an outer corky dead part that varies greatly with different species and with age, and the thin inner living part. Then the wood which in trees of most species is clearly differentiated into sapwood and heartwood; and finally the pith indicated by a small central cove darker in colour which represents primary growth formed when woody stems or branches elongate.

Bark
Wood
Pith

Most branches originate at the pith, and their bases are intergrown with the wood of the trunk as long as they are alive. These living branches constitute what are known as intergrown knots. After the branches die, their bases continue to be surrounded by the wood of the growing trunk. Such enclosed portions of dead branches constitute the loose or encased knots. After the branches die and drop off the dead stubs become overgrown and clear wood is formed.

Knots

Between the bark and the wood is a layer of thin walled living cells, invisible without a microscope, called the cambium, in which all growth in thickness of bark and wood arises by cell division.

Cambium

No growth in either diameter or length takes place in wood already formed; new growth is purely the addition of new cells, not the further development of old ones. New wood cells are formed on the inside, and new bark on the outside of the cambium. As the diameter of the woody trunk becomes greater the bark is pushed outwards and the outer bark layers becomes stretched, cracked and ridged in patterns often characteristic of a particular species.

Spring and Summer Wood

With many species in temperate climates there is sufficient difference between the wood formed early and that formed late in a growing season to produce well marked annual growth rings. The age of a tree at the stump or at any cross section of the trunk may be determined by counting the rings. The inner part of the growth ring formed first in the growing season is called springwood or early wood, and the outer part formed later in the season, summerwood or latewood. Springwood is characterised by cells having relatively large cavities and thin walls. Summerwood cells have smaller cavities and thicker walls. Springwood is lighter in weight, softer and weaker than summerwood; it shrinks less across and more along the grain of the wood. Because of the greater density of summerwood, it is sometimes used to judge the

quality or strength of wood. A cooper must be able to "cull" timber and his judgement of strength and quality is of the utmost importance.

Sap and heart-wood

Sapwood contains living cells and has an active part in the life process of the tree. It is located next to the cambium and functions in sap conduction and storage of food. The sapwood layer may vary in thickness and in the number of growth rings contained in it. As a rule the more vigorously growing trees of a species have wider sapwood layers. Heartwood consists of inactive cells formed by changes in the living cells of the inner sapwood rings, after their use for sap conduction and other life processes of the tree have largely ceased. The cavities of heartwood cells also may contain deposits of various materials that frequently give much darker colour to the heartwood. In some species of ash and oak, the pores become plugged with ingrowths known as tyloses, before the change to heartwood is completed. Heartwood having pores tightly plugged by tyloses, as in white oak, supplies timber suitable for light or wet coopering. That is making casks for beer, wine and spirits. The infiltrations or materials deposited in the cells of heartwood usually make timber cut from it more durable than from sapwood.

Wood cells that make up the structural elements of the tree are of various sizes and shapes and are quite firmly grown together. Dry wood cells may be empty or partly filled with deposits such as gums, resins or tyloses. Many cells are elongated and pointed at the ends and are known as fibres. In addition to fibres hardwoods have cells of relatively large diameter, known as vessels. These form the main arteries in the movement of sap. Both hardwoods and softwoods have cells that are oriented horizontally in the direction from the pith to the bark. These cells conduct sap radially across the grain and are called rays or medullary rays.

Cells

Rays

They are seen most easily on quarter sawn surfaces. In oaks and sycamores the rays are conspicuous and when cleaving or splitting logs, the timber parts more easily when struck radially along the rays. This is utilised when making cask staves from the rough, that is by cleaving the timber from the log.

The one apparent drawback to the use of timber, is its need to alter shape and volume with changes in its moisture content. Seasoning or drying reduces the weight, reduces shrinkage, increases strength, reduces fungi and insect attack. Seasoning is carried out traditionally by air drying, but kiln drying reduces the time required and lower moisture contents can be achieved.

Drying

Chapter III

The skills of the craft.

There are, or were sub-divisions within the craft, tight or wet coopers were concerned with liquor casks and were considered the most highly skilled craftsmen. Slack or dry coopers were concerned with containers for dry goods such as butter, cheese, cereals, fruit, meat and pottery, to name a few. While white coopers, were very often not coopers at all, but carpenters or handymen who made tubs, churns and pails, any container that did not require to be bent, and at one time every village in the country had at least one to supply homes and farms with everyday utensils.

We are concerned here with wet coopering, as Dublin specialised in this branch of the craft, whereas Cork was the centre of the provision trade.

Making staves from the rough was the first task undertaken by the cooper. The rough logs were usually cut to length, quarter sawn and air ~~dried~~ by stacking. The cooper using a cleaver[1] or cleaving axe struck the quarter sawn block radially along the medullary rays, drove the blade in with a hammer and then inserted the block between the rungs of the break[2], a stoutly built ladder like construction.

Plate II – Jointing the stave on a jointer. To its left, using a croze to cut the groove.

On bearing down with his weight on the handle of the cleaver the block splits along the rays. The sap-wood and pith are removed with the cleaving axe and the wedged shaped piece axed roughly parallel. This was the usual starting point for the cooper, because by the 17th century the making of staves became a separate industry and developed into an important export trade.

Preparing or Listing the stave ~ Using the axe, the cooper tapered the stave from about halfway along its length to each end. This gives the stave its rough outline, wider at the centre or bilge and narrower toward the 'headings'. Using a backing knife[4] the outside of the stave is worked into a convex shape, the stave being firmly held in a jig or stand known as a horse[5]. (see footnote) Using a hollowing knife[6] the inner surface of the stave is worked into a concave shape. The next operation is jointing in which the edges of the stave are planed at an angle to coincide with the final curvature of the cask's diameter. This is done on a large inverted plane or jointer[7] about 6 ft. long, one end being supported on legs 2 ft. high. The stave is thrust across the blade treating half the length at a time, giving a smooth and slightly inwardly inclined surface or joint.

Footnote ~ This stand varied in design from place to place and each variant had different names ~ A MARE allowed the cooper to sit, he stood by a HORSE ~ and a third variant was known a e Donkey.

Raising the Cask ~ When a set or match of staves has been dressed the cask is raised. The staves are stood on end, joint to joint filling the inner circumference of a head hoop. A runner hoop is then placed in position halfway down the staves and both hoops are tightened by driving with a hammer. The staves are 'knocked fair' by tapping the ends with a hammer where necessary. At this stage the cask has the appearance of a truncated cone with the staves splayed out like wooden fingers. It is then placed over a fire of waste chips in a cresset or small iron basket, and when the timber is warm enough to be bent (usually 45 mins.) an especially heavy hoop called a truss hoop is driven to the bottom slightly pinching the staves. The cask is then turned over and one side of the truss hoop is driven back again, thus pinching the staves still further (see Plate III). A smaller hoop is forced on and the process is repeated a progressively smaller hoops are driven on until the closure is completed. This is the traditional method of bending the staves. However in brewery and distillary cooperages, the industrial method involved the use of steam for heating and a windlass used for bending. Briefly the splayed cask is placed under a steam bell (large inverted tub with steam supply)

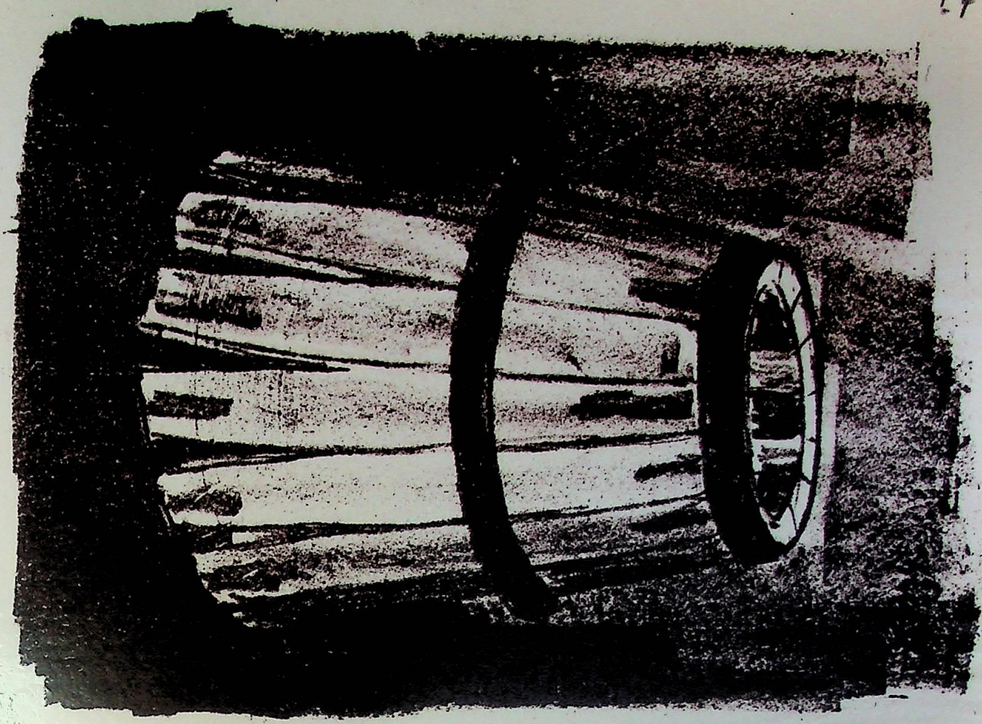
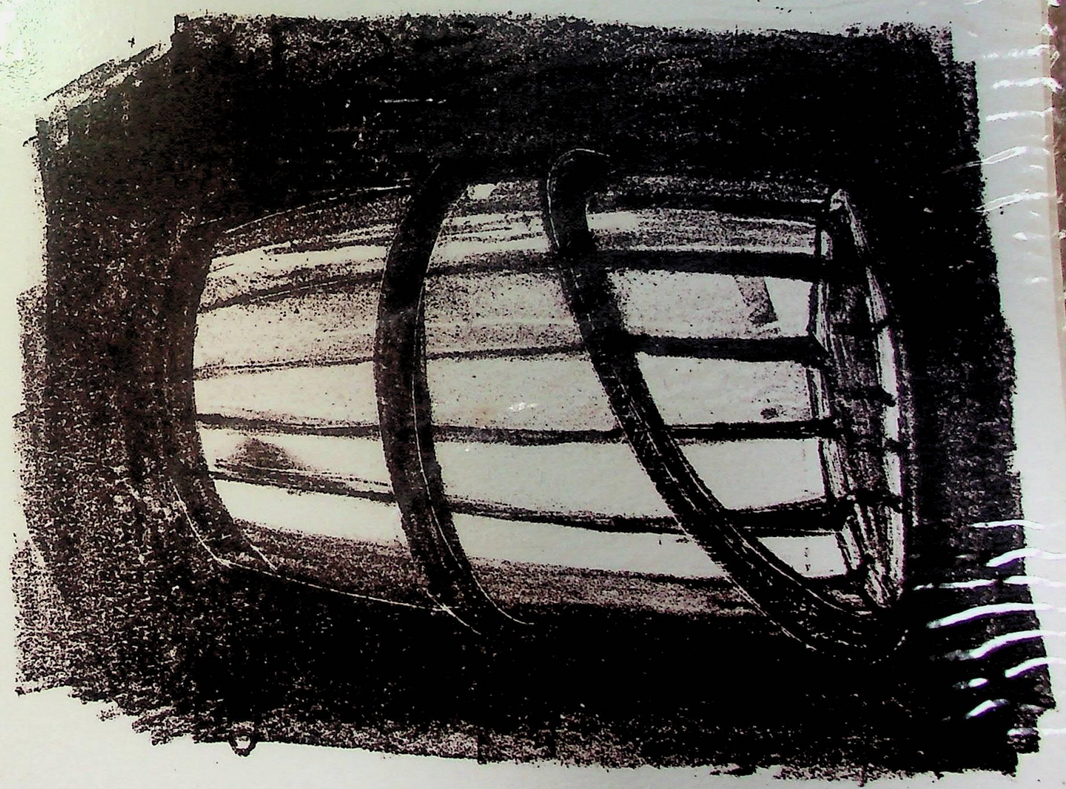


Plate III (a) Raising a cask, hoops and runner hoops in position.



(b) bending the staves with a truss hoop

for about half an hour. It is then removed from the steam chamber, and a wire cable is looped and tightened about the splayed out ends by a windlass. When the staves are drawn together a special hoop known as a 'dinger' is hammered on. The cask is then turned through 180° on its vertical axis and the tightening process repeated to ensure a symmetrical shape, the dinger being replaced by a head hoop which was driven tight.

Trussing the cask ~ Immediatly after the cask has been bent, it is 'knocked out', tapped with a hammer on the inside to bring all joints level. The cask is then placed over a fire in a cresset and heavy iron hoops known as truss hoops are driven on. First the 'cock' hoop is driven and reaches to the bilge or cock of the cask, followed by a bilge and quarter hoop on either side. The head hoops are already in position. When fully driven the truss hoops are equidistant from one another, and apply equal pressure over the length of the cask. The cask is fired for 20 minutes to dry out and set the bend in the staves. It is then removed from the fire and the inside smoothed where necessary using a 'roundshave' which is a variety of knife with a horseshoe shaped blade and two handles.

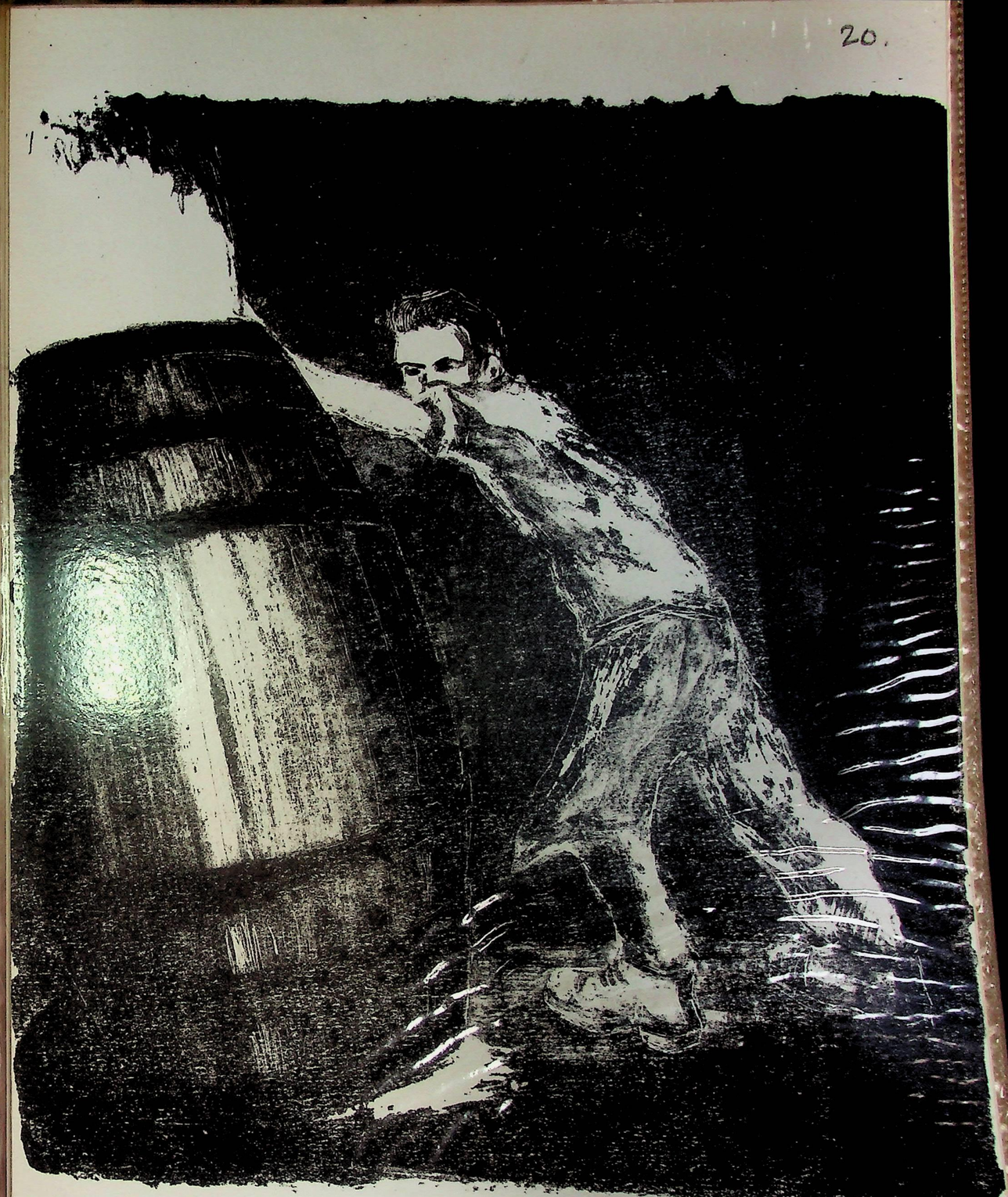


Plate IV – Blazing a Butt.

Blazing ~ This is charring the inside surface of the cask, which cleans and seals the timber and leaves a thin layer of charcoal which probably prevents the cask becoming foul by absorbing impurities. For blazing a pile of oak shavings are placed on the ground inside the cask and set alight. When the inside surface begins to burn the cask is tilted momentarily to allow a draught of air to enter a cause a fierce short blaze. The other side is briefly tilted to ensure an even blaze and then the fire is extinguished. This is a critical operation and demands care and experience as an overblazed cask can be a total loss and underblazing will result in failure to seal. With an adze, the cooper paves the stave ends and cuts the sloping bevel or 'chime' running around the ends. A topping plane,[10] finishes off the ends to an angle of some 25° for a brewers cask and up to 50° for a wine or spirit cask.

Cutting the Grooves ~ The grooves, riddle, or head slots are located about two inches below the stave ends. Before ploughing out the grooves with a croze,[11] the inside surface is prepared with a hand howel,[12] (pronounced 'hoil') which is a small adze with an arched concave blade. It is used with a light chipping action to provide a smooth surface for the

groove cutter or croze. A more modern version of the howel is the stock howel,[13] a convex shaped curved plane mounted on an adjustable stock attached to a D shaped board. The board acts as a guide as it slides around the end of the cask. The planing action takes place across the grain of the staves producing the smooth surface ready for the croze. The croze is one of the most beautiful tools I have handled. It consists of a compound cutting head made up of two coulters or blades set at about 3/8" [illegible] followed by a plough blade or hawk all [illegible]nted in a curved brass head attached to a D [illegible]ped board. A handle is mounted beneath beneath [illegible] cutting head. With the D-shaped moving around the top of the cask acting as a guide, the cooper with his arm deep inside the cask gripping the handle, moved the cutter across the surfaced of the staves ploughing out a groove approximately 1/4" deep. The incisions cut by the blades are of unequal depths and the hawk or plough is slanted to counteract the curvature of the staves, leaving a clean groove to accept the bevelled edge of the head.

Heading ~ Before the heads are fitted the bunghole is bored out and enlarged with a reamer to take a brass flange. Sh[illegible] timber for heading

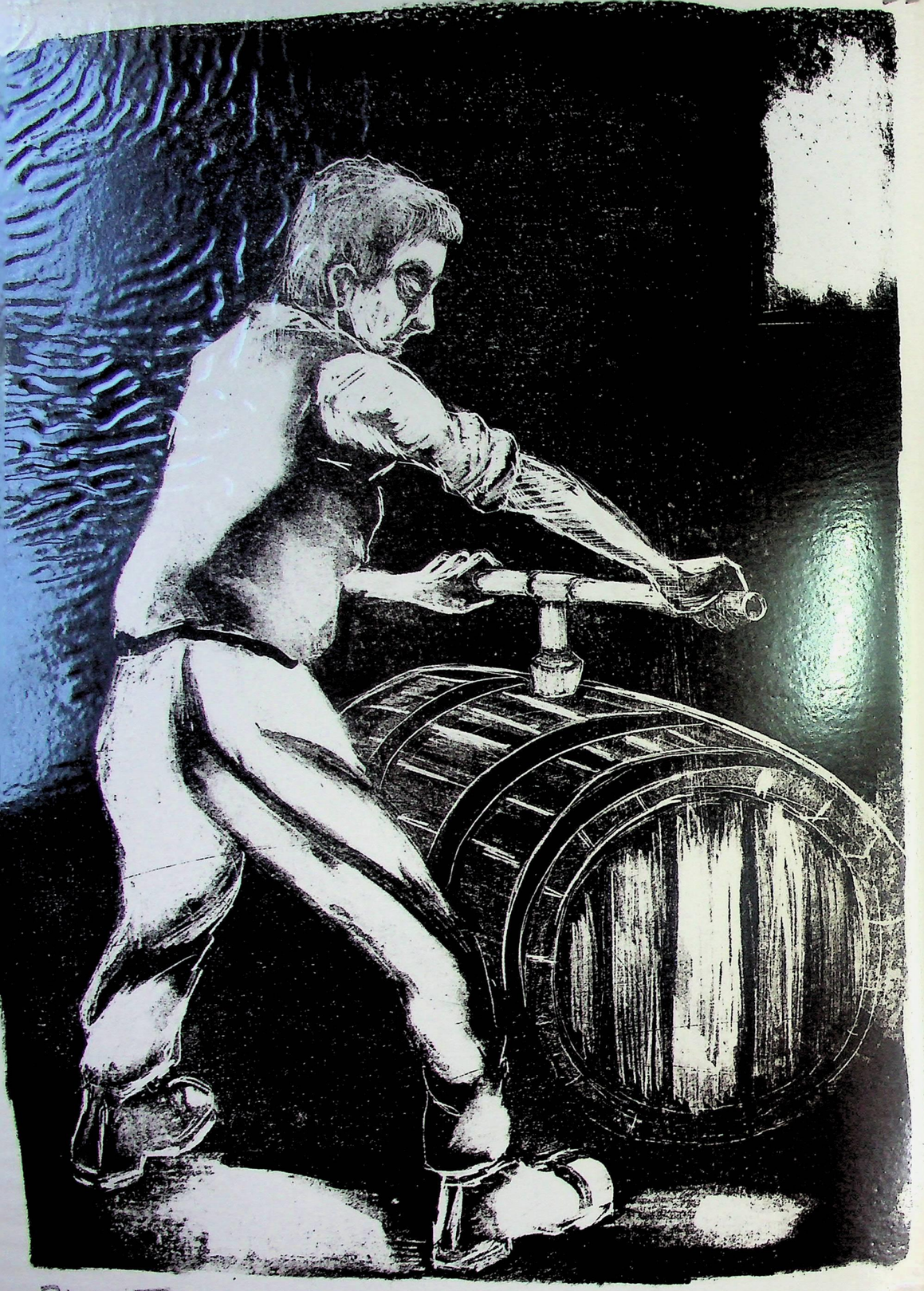


Plate V – Enlarging the bunghole with a reamer.

is not cleft, but quarter sawn, rectangular in shape, varying widths, and is cut to length slightly longer than the outside diameter of the cask ends. The number of pieces can vary depending on the cask size and timber width. For brewers casks the oak is 1½" thick, lighter for distillers. In preliminary laying out the pieces are placed edge to edge, to form a rectangle slightly longer across the grain. The outside pieces or 'cants' are roughly shaped with an axe (cantled) to form an arc leaving a [illegible] or piece of unhewed timber in the middle of [illegible] for supporting the head later on in the [illegible] procedure. The pieces are then laid out and carefully aligned before marking for drilling and dowelling. This was formerly done with a wooden dowelling brace, made by the cooper from a single piece of oak and fitted with a duck bill bit or drill. After boring the sawed edges are jointed smooth and each joint is lined with a piece of dried split rush, then using hand made dowells the head pieces are knocked together. They are swifted or planed with a 'swift'[14], a two handled plane like a large spokeshave with the handles curved forward in the direction of thrust, and tapered like the wings of a swift.

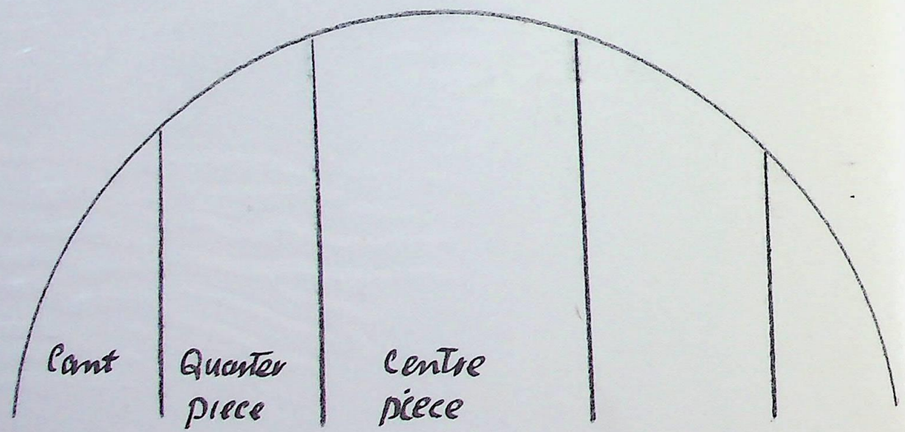
The head is supported on a swifting board, a small easie like frame with adjustable pegs, and with the frame supported against his knees the Cooper stoops forward and with downward strokes across the grain planes the surface smooth. At this stage the head is often branded. To gauge the required radius a system of stepping The compass around the groove of the prepared cask, adjusting the points until the distance between them is fractionally greater than 1/6 of the circumference of the groove. The head is then scribed with a circular score. Holding the head with one of the cant steps on the coopers block, the cooper now cuts the head to shape with the axe. The supporting step allow solid blows to be struck without risk of loosening the cant or breaking dowels. The cooper rotates the head always cutting across or slightly with the grain of the timber. Next a heading knife is used to pare the head a smooth edge and a double bevel. This tool is similar to the backing knife, except for a slight difference in shape making it suitable for thrusting rather than drawing. The head is firmly wedged in the notch of the block and held by the coopers legs or base of his abdomen. Many coopers admit to a large welt or area of tough skin at the base of their bellies from years of working at the block. Finally the head

is scribed again and the fine edge is cut around this mark. This edge is known as the bite and will fit tightly into the groove. The cants are cut approx. 1/4" outside the compass mark making the head slightly oval allowing for greater shrinkage across the grain when the hoops are finally driven. The heads are then blazed and fitted. The heavy truss hoops are now replaced by a set of regular hoops, which have been cut shaped and rivetted by the cooper. He starts with the end or chime (chimb) hoops. When these are driven the truss hoops are hammered off and the [illegible] is shaved clean with a titlark[15] or a downright[16]. There are varieties of heavy spokeshave like tools of the swift family. Then the bilge and quarter hoops are fitted and driven.

To fit the head the chime hoop is removed allowing the staves to spring open slightly. The finished head is eased into the cask at an angle, being held by a piercer or head punch driven into the quarter piece of the head. The edge or bite of the cant is set into the groove and from underneath the head is tapped into position. In many cases the quarter hoop may be removed to allow the staves to open sufficiently to receive the head into the groove. The hoops are then tightened and the cask inverted and the

procedure repeated except that a head riser or bent crowbar is used through the bunghole to lever the second head into position. When the hoops are finally driven a brewery cask is tested at 40 lbs/sq-in pressure for leaks, as beer coming into condition naturally undergoes a secondary fermentation in the cask, and builds up a pressure of carbon dioxide, which produces the natural creamy head on a pint.

Brewers Casks	Brewers Measure Gallons	Imperial Measure Gallons.
Butt	104	108
Hogshead	52	54
Barrel	32	36
Kilderkin	16	18
Firkin	8	9



Cask head

— Brewers [illegible] 1908 —

Chapter IV

History of the Dublin craft.

The history of all Dublin crafts begins in the last quarter of the 12th century. Up to that Dublin was an obscure Scandavian trading post on a hill at the confluence of the river Poddle and the Liffey estuary. There was sufficient water a low tide to float a few long boats in the famous black pool. Before the Norse settlement Dublin was a stopping place at a ford on the great road north to Tara of the Kings. The Normans made it the centre of their colonial government and Henry Angevin on a visit in November 1171 granted what became known as the Bristol Charter. This allowed the settlers the same freedom as they enjoyed in Bristol, and established the port as a crown function. In a space of 50 years from that date the population exploded. Merchant adventures, artisans and craftsmen not only from Bristol but from all over Henry's dominions, which stretched from the Pyrennes to the Atlantic coasts of Scotland and Ireland. They came and established themselves with trading and family life, and the Guilds became as organised and powerful as anywhere in Europe. 19 11

Henry III granted the citizens the right to elect a mayor in 1217 and gave them the city in fee farm at 200 marks per annum, however it was not until

the close of the 17th century that the control of the city was placed in the hands of the civic authorities and for two centuries thereafter they continued to rule with a rod of iron. It closely resembled the Government of Florence in the 13th century by the 'Arte' or guilds and had nothing to do with modern municipal rule.
Nevertheless, certain civic rights were from time to time conceded by the King's Viceroy, rights stiffly upheld by the sturdy decendants of the Bristol colony and their Welsh co-partners.
The citizens as was natural from the proximity of their factious neighbours, the Irish, early constituted themselves into a military organisation. In the city Assembly Roll of 1454, it is enacted that no apprentice of a merchant or other craft should be admitted into the guilds of the said city till he possessed a bow, arrows, light helmet and a sword. The early guild records have many accounts of military expeditions mounted by the citizens against the Irish, and even naval excursions against Wales and Scotland. 17 9
That there were coopers working in Dublin from the 12th century there can be no doubt. No mediaeval community could function without those skilled in the craft. In a developing trading port, much of the goods in trade, military stores and ship's provisions

were carried in casks. There is no record of a guild of coopers until the 17th century, but by the end of the 15th century, the coopers or hoopers as they were known then, had arrived at a certain degree of organisation. The earliest reference I could find concerns the pageant of Corpus Christi day 1498. To this pageant the Guild Merchant and the various bodies of Craftsmen contributed each in his allotted manner. The law dealing with the pageant was already 'an olde law' in 1498 and affords interesting evidence of the degree of organisation of industry in Dublin in the 15th century. The pageant consisted of a succession of mysteries or miracle plays performed in the open on movable stages. Twenty eight occupations are mentioned in the regulations for the pageant. "Hoopers: The Shepeardis, with an Angill syngying Gloria in excelsis Deo. Peyn XLs (15/=)." What guild the hoopers belonged to is not recorded, but it was common at that time for craftsmen to belong to the Guild Merchant, as they traded in raw materials and sold their finished goods. 16

A reference to Coopers in 1622 is contained in the Municipal records, concerning the removal of the herring fishing from Clontarf to Ringsend. "That forasmuch as Strangers and merchants cannot

performe their fishing without coopers which for the most part each man bringeth with himselfe, that it may be lawful for all coopers to worke there during the hearing fishing without any disturbance of the free coopers of this cittie, who are not able to serve merchants and Strangers, neither do they make theire barrells according to theire bonds, when they were admitted freemen, which is that they shall pyn and twigg their casks." (see footnote) Obviously the seasonal herring traders were not free of the city (members of a guild) and the coopers of the city would not be permitted to work for them, lest they could interfer with outside or foreign coopers. The herring merchants made the case that the casks made by the city coopers were unsuitable for salted herring, as the inferior dry casks were used by the trade, as they are still by the Dutch and Norwegians. 17

In 1648 the Guild Merchant made a complaint to the city Assembly to prevent coopers becoming involved in the wine trade. It is interesting to note that about the same time in London, parliament rejected a similar

(footnote) ~ Pyn + Twigg refers to the method of construction of a cask with wooden hoops. These were fitted twigged or notched. In twigged hoops the ends are pared off at an angle and joined, the splice being bound with sally twiggs. A few nails or sprigs were driven in to hold the hoop in position. 20

complaint about coopers opening wine taverns. The grounds of rejection being that it interfered with the liberty of the subject. Subsequently the description wine cooper became synonymous with wine merchant.
The grant of a royal charter is a real landmark in the history of the craft, and in 1666 Charles II issued a document setting up a controlling body or corporation of coopers known as 'The Guild of St. Patrick near Dublin', "for the more skilful and better regulating the art and mystery of coopering in our said city of Dublin for want of which many inconveniences do daily arise among our subjects there residing." The original document is on display in the Guinness Museum, at St. James' Gate Brewery in Dublin. The power of the guild was formidable, having the right to own property, to hold court, to make and repeal laws, to enforce them and to punish offenders, all with the full backing of the law of the land. The guild was now a legal entity and was entrusted with the governing of the craft. That the guild system responded to this trust and performed its duties to the satisfaction of the community over a considerable period of time is an historical fact. It was based on exclusiveness and monopoly, and as long as its rigid code worked in the interests of the majority of the community,

social, economic and political life flourished in an orderly fashion. Master and journeyman sat in 'hall' as equals, and the civic rights won by the guilds wrought great changes in the freedom of the individual as compared with life under the feudal system. No record of the business of the Guild of St. Patrick during the first century of its existance has survived, but fortunately a minute book of the guild from 1765 to 1836 is preserved in the Guinness Museum. This book is an important document as it spans a period during which the guild system went into decline. It opens in May 1765 with the minutes of a typical guild meeting, well attended and concerned with the regulation of the craft. It is an example of the guild at labour in the best interests of the community. Certain brewers of the city were employing 'petty coopers', that is non members of the guild, in their brewery yards, who bought empty casks from 'ale drapers' and repaired or re-made them for use in the trade. Such practices struck at the basis of the guild system. The guild had no control over such coopers, and could not take responsibility for fair measure. Furthermore they had the monopoly of beer cask making in the city by right of charter, and

confirmed to them by usage and custom. They therefore resolved their determination to assert and maintain their rights and privileges by due course of law against any other corporations or individuals who shall intrude upon their branch of trade. At a conference with the Brewers Guild, the brewers declared that they disapproved of the innovation and abuse complained of, by brewers undertaking to have their barrels made up in their own yards by private and disqualified persons, and that they would chearfully co-operate in all legal measures to put a speedy and effectual stop to so illicite a practice. The coopers proposed to elect a brandmaster, investing him with the power to visit all yards in the city and examine and brand all beer barrels made there, "as shall be found to be of suitable measure and of good, sound and seasoned timber, and to reject all such as are otherwise made." The regulations to be published in the newspapers of the city "apprising 'Ale Drapers' thereof and thereby certified of meeting with fair and lawful measure." That the steps taken were somewhat successful can be judged by the crop of petitions that follow in the minute book, of coopers applying to join the Guild as quarter brothers. (see footnote)

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footnote - A quarter brother is a craftsman who has served his apprenticeship outside the guild, but who can satisfy the master and wardens that he is skilled in the craft. He can be admitted on payment of quarter dues,

Each quarter brother on admission to the guild entered into a bond "not to work in a clandestine manner for any brewer or merchant."

In 1667 the master and wardens of the guild had presented a petition to the Common Council of the city "For enrollment in the city records as a body politick." It was ordered that they be so enrolled and that they have three representatives of the corporation of coopers on the Common Council or Numbers as it was known. At this time the Common Council of the city had an upper house or board of Aldermen, and a lower house known as Numbers.

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From the entries in the minute book of the guild or corporation of coopers, it can be seen that it flourished up to about 1780. At a quarterly meeting to elect representatives to the Numbers in 1765, 98 votes were cast, and the proceeding thereafter show a concern with matters pertaining to the craft and the welfare of the members. But by the early 1780's a change was taking place. Attendance at meetings was down, indeed many times no business could be transacted for want of attendance of the brothers.

33

At quarter day elections

but he has no right to attend meetings or vote. It is [illegible] that many R.C. craftsmen joined the guild in this way, as they were not required an oath of allegiance, as were the free brothers.

in 1790 a total of 15 votes were cast, while in 1792
the same officers were elected on a total poll of 7 votes.
In a space of 27 years the attendance of voting
members at meetings dropped from around 100 to 7.
About 1770 the first reference to the Coopers setting up
unlawful Combinations occur. Many acts of violence
were committed against outside Coopers brought in by
the employers, and against private property. The evidence
points to a mass exodus of disenchanted journeymen
from the guild, and to setting up of their own trade
society or illegal combinations.
Guild meetings continued with a handful of influential
citizens attending, appealing for sterner legislation to
bring the workmen to heel, and swelling their numbers
by admitting other influential citizens who had nothing
to do with the craft. The Irish Parliament passed an
act in 1793 admitting Roman Catholics to Guild
membership, but by this time the Guild had little to
do with the craft of coopering, it was merely a political
club.
The organisation of the crafts had gone underground,
and attempted to frustrate the law by registering their
associations as friendly societies or mortality societies.
In the 1790's the Samaritan Society was the cabinet
makers union, the Halifax Society was the saddlers union,

and there was two societies representing the carpenters.
These societies held their annual meetings or 'fields'
at a safe distance from the city, but by 1824 the
anti-combination laws were repealed, and the workmens
combinations became the early trade unions. However
evidence exists to show that convictions under the laws
of conspiracy continued against trade union members
continued up to 1850.

If the Dublin Guilds did not pass directly into
the trade unions, the unions seized and embodied
something of their older and stronger spirit, and
continued it as a living and working entity in the
Irish Capital.

The Regular Dublin Coopers Society on its note-
paper bears the arms of the Guild of St. Patrick and
the inscription Incorporated 1501. Here is an example
of a trade union tracing its history back to the
beginning of the 16th century, and through the guild
to the trade society of the 19th century. Sidney and
Beatrice Webb are scathing (wrongly I think) of the
Dublin Craftsmen claiming to don the mantle of the
ancient guilds, and saw it as something quite alien
to the spirit of the new trade unionism. They also
asserted that the Dublin trades were the best
organised in the United Kingdom. The members

of the different societies ruthlessly enforced the bye-laws for the regulation of their respective industries. Many employers complained that they did not control the labour element in their businesses. About 1838 Daniel O'Connell made a vigorous attack on the new unions, or trade associations of Dublin. This led to the appointment of a Parliamentary Committee. The chief points of dispute between men and masters were; rates of wages; method of payment (time or piece); the number of apprentices to be employed; the employment of men who were not union members. On all these points the unions claimed to legislate. Resort was often had to violence. Men who came under a union ban, and men who refused to join a union were 'taken care of'. Property was often destroyed, and several lives were lost through the activity of punishment squads known as 'the welters'. In August 1875 Dublin saw the greatest parade since the Corpus Christi pageants of the guilds, when the Dublin Trade Societies paraded with guild emblems and lodge banners in honour of the centenary of the birth of Daniel O'Connell, whose great work in part was to put down the worker's combinations that sought to challenge the authority of the masters. The unions embodied that same fraternal spirit

of the early guilds, and their policies were based on that same exclusiveness and monopoly of skills that founded the guild system.

By the opening of the 20th Century the Regular Dublin Coopers Society operated a 'closed shop' in Dublin's breweries and distilleries. Rule 27 stated:- "All apprentices must be sons and grandsons of members". No cooper who was not a member could be employed at the craft in the city, rates of wages and methods of payment were fixed by the society. No cooper was allowed to work at any class of work other than cooperage, while employed as a cooper. Furthermore no cooper who is fully employed was allowed to work in any other shop, while members of the society were unemployed.

From the end of the First World War until 1961, the affairs of the Regular Dublin Coopers Society was dominated by Guinness's Brewery, or 'The Brewery' as it was known. There were up to several hundred coopers employed in 'The Brewery' and this represented approximately 80% of the membership of the society. The Dublin distilleries would account for most of the remaining members. Outside industry there were a number of private cooperages or 'splank shops' as they were

A century ago such yards abounded in Dublin, with wine coopers concentrated in the Jervis Street, Abbey Street area and general coopers concentrated in the 'Liberties' where the breweries and distilleries were located. In 1850 some 40 cooperages are listed as existing in Dublin. To day there is one, on the north bank of the Liffey at Smithfields.

The principle that only craftsmen were competent to direct craftsmen was enforced in the workplace, and this resulted in coopers becoming part of the management organisation in industry. Traditionally foremen were promoted from the shop floor, but about 1920 Guinness broke new ground and appointed a cooper to the position of departmental manager. The 'head cooper' was manager of the cooperage dept. and this was a staff appointment of considerable status, and it solved a number of problems for the Brewery management, but created a whole crop of problems for the coopers. Because the cooper in question was Secretary of the Society, not a voluntary position, but a part-time paid officer of the union, probably the principal officer, he effectively controlled both the trade union organisation, and the industrial organisation of the jobs of 80% of the membership.

This anomalous situation continued for about a decade, but is an interesting example of one employer's method of coming to terms with an exclusive and essential trade union.

After the Second World War developments in Technology heralded the end of an era. Experiments with metal containers made of stainless steel, and deliveries in bulk pointed the way ahead for the brewing industry. In 1961 Guinness closed down the cooperage, retraining some of the younger coopers to make metal containers, and retiring the rest on full pay or full pension, depending on age.

To day there is one industrial cooperage left in the city, at John's Lane Distillery, and there are plans to move this to the Irish Distillers plant in Middleton, Co. Cork. When this happens the history of coopering in Dublin comes to an end, after eight centuries of tradition in the life of the city.

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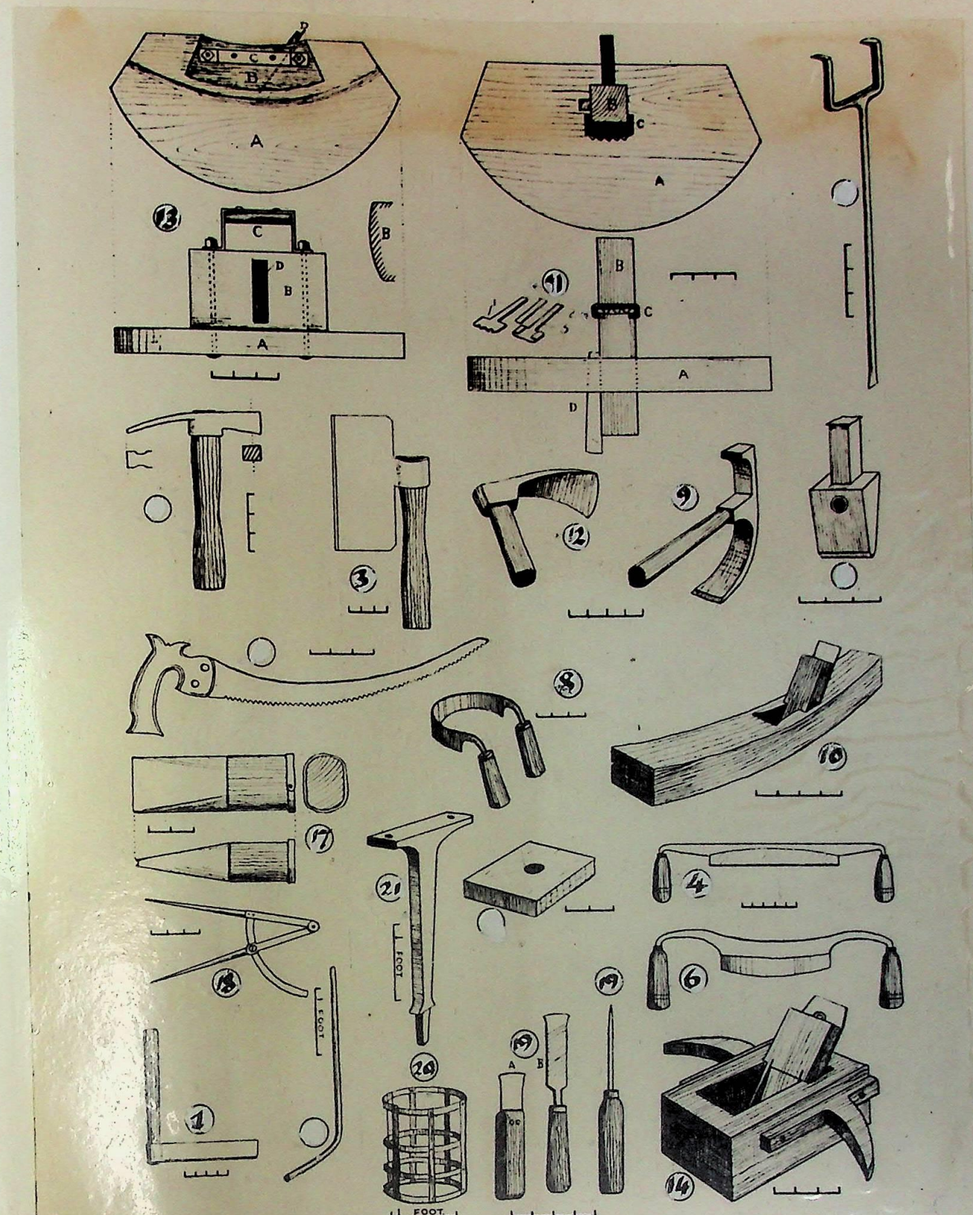
Cooper's Tools ~



All Scales are in inches, except Nos. 13, 17, 22 (Foot Scale).

1 Cleaver
2 Break – not illus.
3 Axe
4 Backing knife
5 Horse – not illus.
6 Hollowing knife
7 Jointer (see plate II)
(11) Croze
(12) Hand howell
(13) Stock howell
(18) Compass
(19) Slutting Irons
(20) Cresset
(21) Bick Iron (anvil)