

# IN PRAISE OF THE COOPER HOW THE GREAT CASKS WERE MADE

By  
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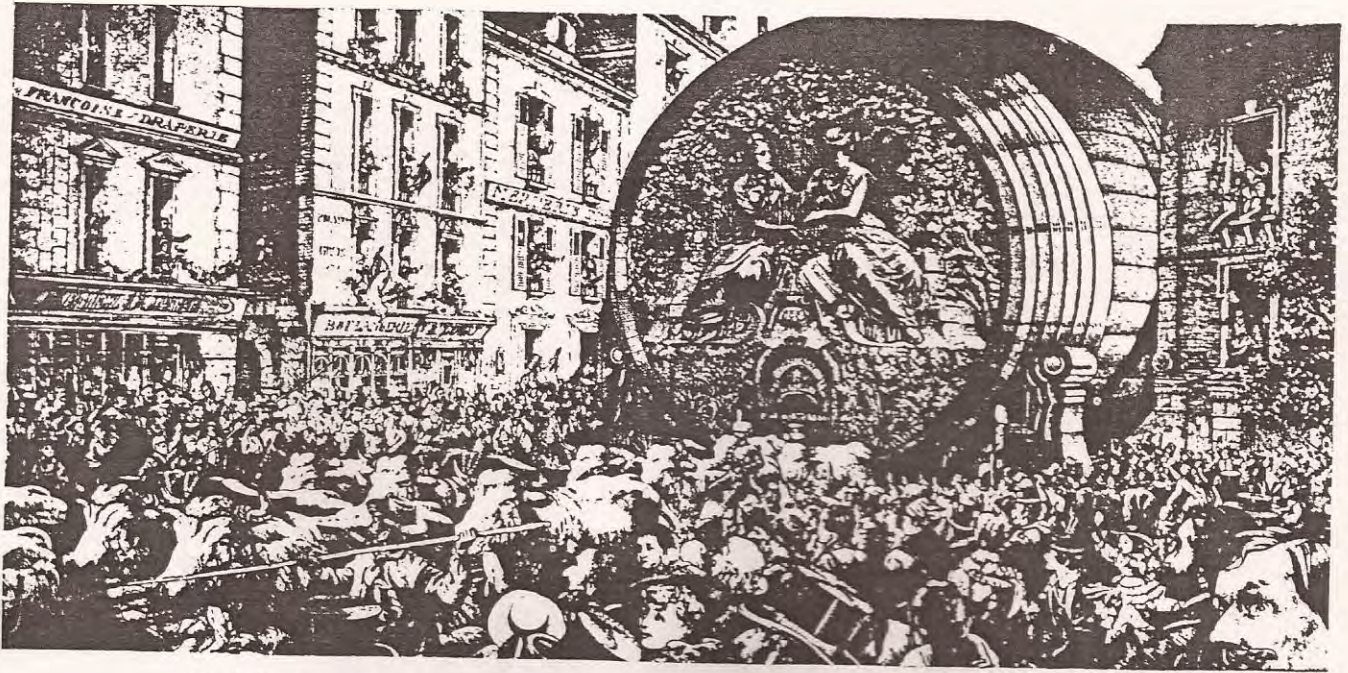


Fig. 1. The great Mercier cask, drawn by 24 oxen, arrives at the Exposition Universelle, 7 May, 1889.

The scholarly-looking gentleman had brought in an unusual tool, and was asking my father if he knew what it was, and whether he had seen anything like it before. We didn't get many visitors to the old coopers' shop, and to us this one seemed a very strange character. Who could possibly be interested in us? We were a dying breed, and everyone's attention was centered on the stainless steel tanks and automatic processes that were being installed at the brewery. However, my father had a great respect for academics, and brought all his very considerable knowledge and experience to bear on the question. The conversation passed on to other matters regarding coopering, and about the tools that hung from the walls, filled the benches, and lay in the shavings. Raphael Salaman, our visitor, knew quite a bit about tools, as was soon very evident. He was my first contact with a subject which has become increasingly fascinating, and on which Bill Goodman has, for half a century, been a leading authority.

It is many years since I put down my tools and left the block, and now one

would be hard put to find a cooper at work anywhere. Looking back in perspective we were the odd characters since we were among the last to be working at one of the most widespread and greatest of trades, originating three thousand years before Christ, in the Bronze Age. Raph Salaman was endeavouring to preserve for posterity a knowledge of tools and techniques, and an understanding of a way of life that had changed so dramatically, in a matter of decades, that thousands of years of industrial development had been superseded, discarded and forgotten.

We learned nothing of old trades at school; our history lessons were about the Battle of Hastings, and Henry VIII and his wives, kings and battles, and when my interest turned to archaeology I discovered that although the archaeologist frowns upon treasure hunting, it is treasure, jewelry and coins about which he is most knowledgeable, followed by weapons of war; and tools appear not to merit such close consideration. Yet with tools, early engines were made, and from tools, machines have

been developed. The great changes in our way of life have been brought about not by kings, politicians or soldiers, but by the inventive genius of engineers. And should we wish to indulge ourselves in ruminating over hypothetical questions, let's not wonder what would have happened had the arrow missed Harold's eye, or had Germany not transported Lenin to Russia in 1917, but of what might have been the result had the Romans put more resources at the disposal of Hero at Alexandria when he was experimenting with steam power. What a revolution we might have had then!

It was not to be. Hand craftsmen continued to toil away in relative obscurity, and only now that they are gone do we realize the importance of their existence, and collect their hardworn tools with pride. But the coopers have left behind them some outstanding achievements which are capable of thrilling even the jaded public of today.

At Epernay, in the Champagne region of France, in the cool, chalk caves of Champagne Mercier, stands a monster of a cask with a capacity of 160,000

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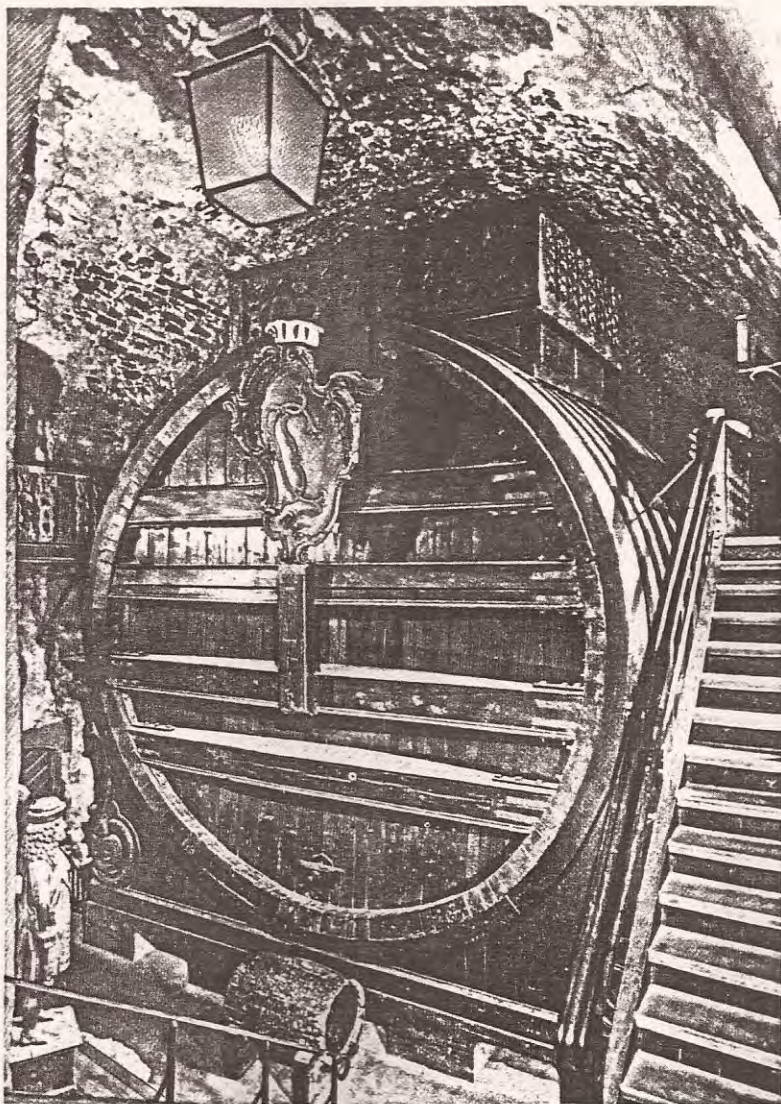


Fig. II. The Heidelberg tun, with the hoopless cask in the foreground.

A tragedy occurred when Walter, who had played such a great part in planning and executing the work, was accidentally drowned in Lake Balaton, and so it was left to Jolibois to raise the cask. Scaffolding was set up to the height of a three storey house, together with hoisting gear, ropes and pyramid-like supports. One by one the huge staves were fitted against each other until the tensions of the hoops could force each tall stave into place. It was then chimed, leveling with adzes the ends of the staves which had already been cut closely to shape, and then came the howelling and leveling of the inside, prior to completing the adjustments to the grove with a specially adapted *jabloir*, or *croze*. Compasses of approximately eight feet radius were made and adjusted to size to mark out the exact shape of the head, which was cut in accordingly. When this was finished the hoops were loosened and the pieces of heading fitted into the groove, an operation which took nine months and seven days.

An elaborate *stillion*, or stand, was then made for the cask, and a M. Navlet began the job of carving the delightful figures on the head. It was registered for excise purposes on the 7th. of July, 1881, and kept filled with water so that the timber would swell and 'take-up' any leaking joints. No doubt flag was chined into leaks around the groove. It was not until 1883, thirty-one years after its conception, that it was filled with blended wines. Its great triumph was to come six years later when it was hauled to Paris by twenty-four white oxen, for the Great Exhibition, cheered all the way by large crowds, astonished by its size and magnificence.

In the cellars of the castle at Heidelberg the Germans can boast an even larger cask, the great tun, with a capacity of 221,726 litres. This is older by more than a century, having been raised in 1751 by Kufermeister Englert, who shaped and bent each stave, and cut to shape each piece of heading in very much the same manner as did Jolibois and Walter. His huge compasses and five foot short jointer hang opposite on the wall. One hundred and thirty oak trees were felled to supply the timber for one hundred and twenty-three, eight inch thick, between four and twelve inches wide, and twenty-seven and a half foot long staves, and the forty-six pieces of heading. The heads, which are dished to the extent of eight inches in the centre, and reinforced by four,

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litres, a magnificent tribute to its maker, M. Jolibois, a cooper of Epernay.

It was a brainchild of the founder of the firm, Eugene Mercier, in 1852, and intended as a publicity stunt. After a seven month feasibility study the task of making the giant was entrusted to Jolibois. For the timber he chose the fine, straight-grained oak from the forests of Hungary, and to that country he went. There he consulted a Hungarian cooper by the name of Walter, who supervised the felling of 250 selected oaks. Since the best time to fell trees is in the autumn when the sap is down, the felling took five years, and for three more years the timber lay seasoning, wrapped so as to retain the required humidity. It was then quartered, sawn to lengths and thickness of staves and heading, and floated on rafts across Lake Balaton.

Helped by a team of thirty men, Jolibois and Walter then proceeded to dress and bend each individual stave. After hollowing and backing, each twenty-three and a half foot stave was put into a specially made scalding tank, where for hours it was steeped in boiling water, after which it was bent with vices and levers, and set, keeping the stave hot by surrounding it with fires. It was then jointed by four men working a short jointer. In this way they were able to complete two staves a month. The pieces of heading were also cut and jointed. From the time of its conception eighteen years had elapsed, and work was now interrupted by the war of 1870. It was not until 1874 that eleven enormous wagons, each pulled by six oxen, were loaded with the shaped timbers, and set out for Epernay, where they arrived in September, 1875.

eighteen inch wide cross pieces, bolted through the staves and the chime hoop, measure twenty feet across.

Astride the great tun is built a balustraded dance floor reached by forty-two steps, but it is the stout wooden hoops, eighteen in number, and nine inches thick, which make the tun look so impressive. They exude immense strength, but in fact the ones near the pitch hang loose about ten inches below the cask, and I doubt if they were ever tight. The secret of the tun's rigidity lies in the fact that between these giant wooden hoops are iron hoops which are obviously taking the strain. The eighteen inch wide wooden chime hoops are tight, and one can see where, in places, wooden wedges have been driven between the hoop and the staves in order to force them in tight against the head. The hoops are jointed so that the ends interlock, and they are held by bolts, the same principle as with little hazel hoops.

I think that Englert must have experienced such difficulties with these massive hoops that he showed his contempt by making a cask without hoops, and standing it in front of the great tun. He has dowelled each stave, driven the cask up tight, and then removed the hoops.

The tun was filled twice, by the peasants' taxes, so it is said, which were paid in wine. I hardly think the blend would have delighted a connoisseur. We're told that the court jester, Perkeo, Guardian of the Tun, consumed a vast amount of wine daily. Were the body contortions of his clowning the reflex actions caused by drinking this wine? What a constitution he must have had! No wonder that he died after being given a drink of water by mistake.

In England we have no such attraction, although the largest cooper-made vessel on record was raised at the Meux Brewery at Clerkenwell, London, in 1806. It was a colossal vat, forty-four feet in diameter, and thirty feet deep, with a capacity of 272,520 gallons (1,238,868 litres), made to hold porter, which needed to mature for twelve months. A considerable number of these straight-sided gigantic vats were raised, almost as large, until in 1814 one burst its hoops, drowning or suffocating eight people. This disaster caused brewers to change their methods, and cut the maturation time so that much smaller vats could be used. Although they were the talk of London at the

time, such huge vats were strictly utilitarian, and none have survived.

But to be impressed by bigness is a vice of the vulgar mind, and coopers have won acclaim in many spheres. For inventive genius should not the honours go to David Bushnell's 'Turtle,' the submarine raised in the coopers' shop of Joseph Borden at Bordentown, New York, during the American War of Independence. What a tourist attraction that would have made!

However, it is that vast army of coopers who were engaged in their humdrum and mundane daily tasks who won the greatest accolade. It can be found in Henry Mayhew's 'London Labour and the London Poor,' where he quotes a street hawker selling penny broadsheets depicting the gory details of a murder. "When a woman is bad, she is bad . . . there's the board before them . . . and when I appeals to the 'lustration, it seems to cooper the thing. They must believe their eyes." And on bemoaning the fact that some gruesome murders did not fire the imagination of the public, and were overshadowed by others, "Why there was Wilson Gleeson, as great a villain as ever lived - went and murdered a whole family at noon-day - but Rush coopered him - and likewise that girl at Bristol - made it no draw to anyone." I can think of no finer praise than when the name of a trade becomes part of the vernacular in so complimentary a manner. It seems to cooper the thing.

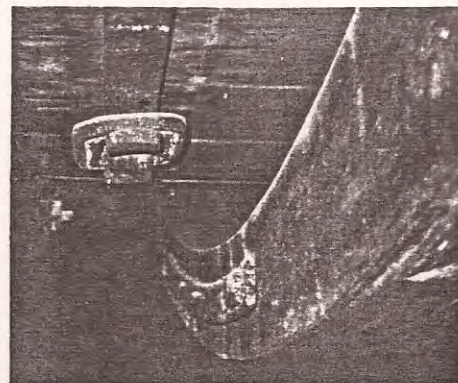


Fig. III. A wooden hoop, loose, and an iron hoop on the Heidelberg tun.



Fig. IV. Jabloir. Musee du Vin, Chinon, France.



Fig. V. Petite essaite (howel). Musee du Vin, Chinon.