AN OLD WATCHMAKERS' WORKSHOP

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THE famous scientist and inventor, Lord Kelvin, speaking at Prescot in Lancashire in 1893, declared: "There is nothing in the whole of mechanism that I take more interest in than a watch; it is the attainment of the height of perfection in human mechanism." At Prescot, he was addressing an audience steeped in the traditions of watchmaking, for whether it be true or not that the first English watchmaker lived near by, as one tradition states, there were certainly watchmakers in the area very shortly after 1600. The fact that metal-working trades were already established on a considerable scale, with numerous smiths producing suitable tools, provided favourable conditions for the growth of the industry. Nevertheless the initial impulse and circumstances of origin are obscure.

The early smith was a man of many parts, for not only did he combine his labours at forge and anvil with small-scale husbandry, but he was able also to manufacture a large variety of weapons, implements and hardware. The natural tendency, as the demand for particular products increased, was to specialise. Thus the clocksmith emerged. James Watmough, a Prescot smith who in 1549 undertook to maintain the clock and chimes of St. Peter's, Chester, affords an early indication of the direction in which local talent was to run. Richard Berry of Prescot, who died in 1594, styled himself "clockmaker," and may have been equally proficient at the bench as at the forge. In the smaller types of clock, and in watches, brass was being increasingly used for wheels and frames, and this metal was readily obtainable from the braziers of Wigan, some twelve miles distant. The transition from smith to clockmaker, and from clockmaker to watchmaker, may well have taken place locally by 1600. The ports of Chester and Liverpool afforded facilities for both coastwise and overseas marketing.

The watchmakers lived in scattered farms over a wide area north of the Mersey extending from Liverpool to Warrington. The tendency

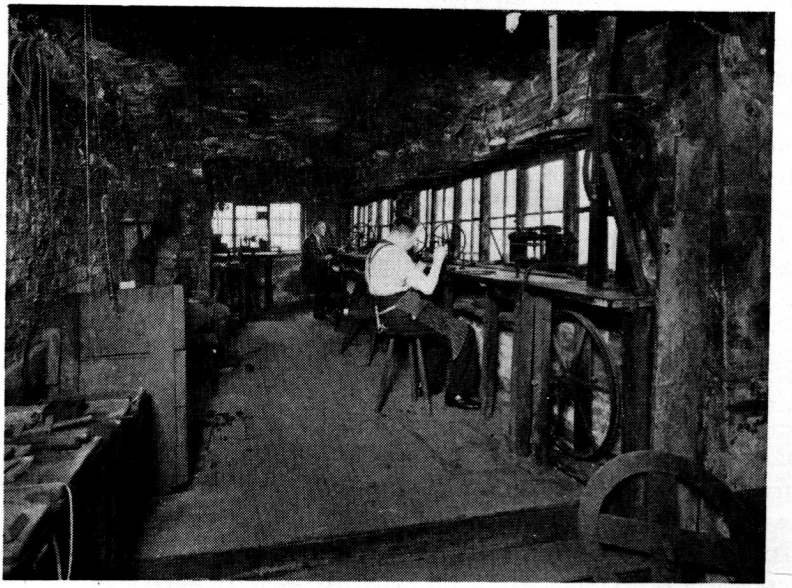
towards specialisation, which became such a marked feature of the trade, was early in evidence, for spring makers and case makers, supplying parts the watchmaker was least able to make for himself, are found by 1680. Watch tool making emerges as a separate trade about 1700; this soon increased enormously, and coming under the direction of John Wyke (1722-87) and others, became the main source of supply both in England and abroad. Tools themselves became ever more specialised, and were supplemented by mechanical contrivances or "engines" such as those for cutting teeth in wheels, cutting fusees[1] and drawing pinion wire, all invented in this area by about 1700. Pinion wire drawers and file cutters occur in some numbers by 1750, the local files, specially adapted for watchmaking, from half-an-inch to six inches in length, being unequalled in Europe. Here, too, the watchmakers' lathe was produced and developed.

Notable contributions were made to the improvement of the watch itself. The early period remains obscure, but hereabouts the "mechanical priest" Edward Barlow (1636-1716) invented the repeating mechanism for watches and (with others) the earliest cylinder escapement. A century later Peter Litherland of Liverpool (1756-1804) invented the rack lever escapement which, with modifications made locally, produced the modern type of watch in place of the older "verge." Later still, the making of movements to standard gauges was initiated by John Wycherley of Prescot (1817-91), and the keyless mechanism for watches perfected by T. P. Hewitt of Prescot (1848-1933).

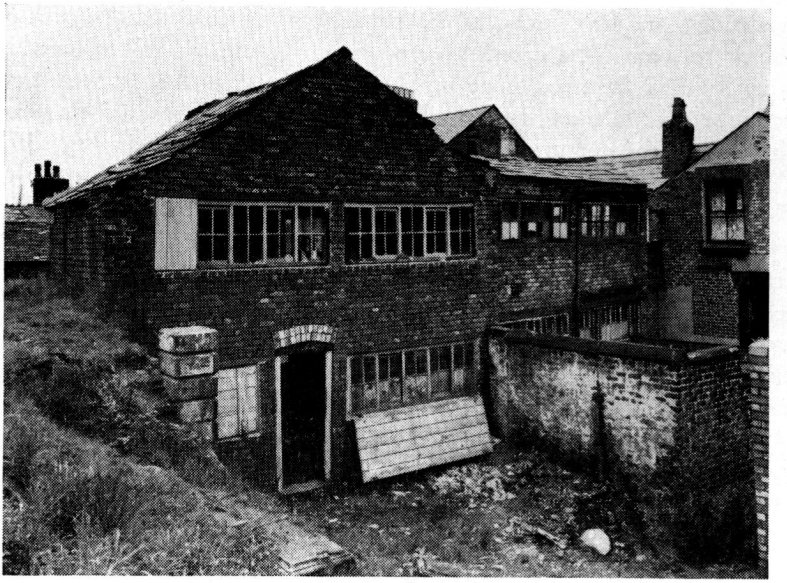
The products of this area were the best obtainable. Its watches were described in 1753 as "not to be excelled in Europe." Hatton, in his *Clock and Watch Work* (1773), observed that "the tools made in Lancashire are the best executed." The files for which Peter Stubs of Warrington (1756-1806) and his successors were celebrated mostly came from the Prescot area. Aikin in his *Country Round Manchester* (1795) described Prescot as "particularly distinguished as the centre of the manufacture of watch tools and movements," the former being "excellent beyond the memory of the oldest watchmakers," and the latter "most excellent in kind, which is greatly owing to the superior quality of their files and tools," whilst "they likewise excel in what is called motion-work, such as dial wheels, locking springs, hour, minute and second hands, etc."

Aikin observed that "the tool and watch movement makers are numerously scattered over the country from Prescot to Liverpool, occupying small farms in conjunction with their manufacturing business, in which circumstance they resemble the weavers about Manchester."

[1]The "fusee" was a device to enable the mainspring to exert a constant force both when fully wound and when running down.



The Pybus Workshop, Prescot, (upper floor), 1953



The same (exterior, west elevation)

From other sources we know that the putting-out system operated here much as in the textile trades. "The manufacturer," wrote an observer in 1793, "delivers the unwrought metal or materials to the workmen, who are universally paid by the piece for their labour, and whose earnings may be reckoned from ten shillings to one guinea per week each." For a domestic worker, this was good pay, the only drawback being a fluctuation in the demand, caused by trade slumps and wars, this being still essentially a luxury trade. If workers became divorced from the soil, as was increasingly the case, they might be faced with starvation in bad times. In wartime, it was said, Prescot furnished more recruits for the army than any other town of similar size.

Yet the tendency to whole-time dependence on the trade, and to ever-increasing division of labour, continued. Between 1800 and 1850 the small town of Prescot nearly doubled its population, almost entirely from this source. In 1862 an observer described it as "a town of little workshops. Behind fully one half of the cottages and private dwelling houses in the town are erected small workshops, in many cases only calculated to accommodate a man and two or three apprentices . . . In these miniature manufactories are produced the *disjecta membra* of English watch movements." In 1864 the trade was said to employ three-fourths of the working population of the town. The recognized hours of work were from 6 a.m. to 8 p.m., with two hours for meals; at these times, from Michaelmas (29 September) to Lady Day (25 March), curfew was rung from the church steeple. By custom, no candles might be used except between these dates. There was no Saturday half-holiday, but annually three days beginning on the first Monday in August were free, and it seemed to some that when August Bank Holiday was introduced throughout the country, the date must have chosen as being Prescot's "club-dinnering Monday."

By 1864 the trade in Prescot comprised forty or more distinct branches, each making one particular component, such as pillar, barrel, stud, ratchet, frame, pinion, balance or hand, and those apprenticed to one branch learned nothing of any other. About one half of the work in the town was done in the masters' workshops, and the other half at the homes of the men. The manufacturer gave out his orders on the Monday morning, received the work from the job masters on the Saturday, and paid on account. He assembled the movements with the assistance of his own journeymen and dispatched them by coach to Liverpool or London for finishing. An apprentice served for seven years, but during the first year or two "he would clean all shoes and windows, brush the yard, poultry-house and pigsty, carry the bread to or from the bakehouse, the clothes to the public mangle, keep the house supplied with water from adjoining

watercourses or wells, and nurse the baby." Some masters would take no apprentices; others had nearly as many apprentices as journeymen. The largest workshops employed up to twenty journeymen and ten apprentices on the premises, but these were exceptional. In two of them, steam-power was eventually introduced, but in the rest, the lathes and other engines were turned by treadle, throw-wheel or bow, the last-named simple device remaining in favour down to the end.

During the later nineteenth century the competition of mass-produced Swiss and American watches became intense, and the Prescot system of manufacture was obviously outmoded. In 1889 most local firms joined in a co-operative undertaking to erect a factory and produce complete "Prescot watches" under one roof. This gallant enterprise, the story of which cannot be told here, came to a sad end twenty years later, and the factory is now a printing works. Some masters preferred to retain their independence, and carried on a dwindling trade in their old workshops until death or other necessity made an end.

The last of the old workshops to remain in use was that of Joseph Preston and Sons, watch and chronometer movement makers. The business dated back to 1829, and survived until 1952, when its last working proprietor, Mr. Harry Pybus, died. Years previously the present writer had mooted the idea of forming a museum of watchmaking in Prescot and using one of the old workshops for the purpose. The suggestion had commended itself to Mr. Pybus and to Dr. D. S. Torrens, who had for long been a visitor to Prescot and a friend of Mr. Pybus. The latter bequeathed the workshop and its contents to Dr. Torrens with complete freedom to do as he might choose. It is now hoped that sufficient support may be forthcoming to enable it to be put into good repair and preserved as a memorial to the fine old craftsmanship for which the town was noted and as an authentic specimen of the premises and equipment used.

The preservation of an actual workshop, complete with furniture, fittings and all the immense variety of instruments, tools and accessories, the materials and the finished products, would be of unique interest, for nowhere else has such a workshop been retained with its old machinery and other contents intact. It would be no mere museum reconstruction, such as the Hindley workshop at York which, excellent as it is, does not claim to simulate the building, or even to preserve the equipment, which Hindley actually used; or the excellent Deacon workshop recently set up in the city museum at Leicester, which presents the contents but not the appearance of the workshop as a building, its two floors being coalesced into one. Both Hindley and Deacon were primarily clockmakers, though able to repair or make up a watch to order, and both were independent

craftsmen living away from the centres of the trade. At Prescot we have a genuine watch movement manufactory, preserved in what was once the main centre in England of the watch movement manufacture, and belonging to one of the leading firms engaged in that trade. The building has been listed under the Act of 1947 as worthy of permanent preservation. It belongs to an interesting historical context, and as it stands constitutes a museum piece in its entirety. This, surely, is the ideal method of exhibiting old craftsmanship.

BOOK REVIEW

English Inn Signs published by Messrs. Chatto and Windus, 10 × 7½. Pp. xvi + 336, with 86 additional pages of plates. 1951. 42/-.

This most attractive volume is a revised and modernized version of the *History of Signboards* by J. Larwood and J. C. Hotten, which was published in 1866 and ran through twelve editions, the last appearing in 1907. Without question it is far-and-away the best work procurable on this interesting subject, and a veritable mine of information on the history and interpretation of inn-signs ; not only does it answer " all the questions " (as far as seems possible to do so) but it also provides a vast fund of literary allusion, anecdote and inn-lore presented with competent scholarship and in an easy readable style. It is so packed with choice matter that one recoils from the task of selecting a quotable passage from amongst such infinite variety and abundance. We are conducted through many byways of history giving sidelights on old customs, manners and people.

Although their names are fraught with history, inn-signs are not generally antiquities in themselves, owing to the need for continuous replacement. There are however many notable exceptions where old work survives, not so much in sign-board painting, perhaps, as in less perishable forms of wood and stone carving, and in superlative scrolled ironwork embellishing a sign even when the sign itself is more recent. The numerous illustrations to this volume depict both ancient and modern artistry in this sphere, and include also a fine series of inn-signs upon old billheads from the collection of Sir Ambrose Heal. A chapter on the Modern Inn Sign is contributed by Gerald Millar, and the whole work is excellently indexed.

F.A.B.