

THE MAUCLINE BOXWORKS.

THE founding of this industry dates back to a period of 60 years ago. It had then a very small beginning, but, like many of our greatest business houses, it has risen by the exercise of the honest endeavour to turn out the finest quality of goods, to a position which is the envy of all similar trades. Then its fame was little more than local, now it is celebrated all over the world. Mr Andrew Smith—the grandfather of the present managing partner—began by making snuff boxes. These snuff boxes had the secret hinge, or, as it was then called, the "Cumnock hinge." By and bye the character of the work began to change, and quite a large number of other articles came to be added to his list. This list has so increased, that the goods which are manufactured nowadays might well be termed legion. Indeed the making of the original article occupies but one, or at most two men, and they are employed in making a small size of box for the ladies of France. It may not be generally known that the "work" in the first instance migrated from Cumnock, where, at one time, over 100 men and women were employed. At Mauchline the introduction of machinery added a great impetus to the trade, and the firm has ever since been ready to apply well-tryed appliances. The present head of the firm is Mr George Smith, who mostly resides in Birmingham, where the Messrs Smith have a large warehouse. About 22 years ago a part of the premises was burned down. When it was rebuilt it was fitted up with new and improved machinery. A short time ago another fire occurred, which, while doing considerable damage, was not nearly so disastrous as the first one. All the affairs of the firm are ably and judiciously conducted, and it has long ago won the confidence, and, what is better, they have retained it, of an enormously large *clientele*, so that to-day it is the leader, and consequently stands in the fore-front of the trade in which it is so extensively engaged. We might be allowed to note that we would have dealt at greater length on the transference of the trade from Cumnock, only we are reserving our information on this point for an article on the old snuff box industry of Cumnock.

So much then by way of introduction, let us turn for a little while to the present-day works, but so manifold are the articles manufactured there it must be obvious that it will be impossible for us, with the space at our disposal, to lay claim to anything approaching absolute completeness in describing how *all* the several articles are made. It will be our endeavour, however, to present our readers with some idea of how the work, as a whole, is carried on, dealing at length with one or two of the special features which are worthy of more than a passing remark.

On the afternoon of our visit we were placed under the guardianship of Mr John Hay, who, as everybody in this district knows, holds

A RESPONSIBLE AND TRUSTWORTHY POSITION under the firm, and whose knowledge of the "methods" proved of the utmost benefit to ourselves. The first place we visited was the woodyard, where logs upon the top of logs of planetree were lying. It would seem as if the Messrs Smith had used up all the available planetree that can be procured in Scotland, as they are now, and have been for some time back, importing it from Ireland, while even the famous Hawarden woods have contributed their quota. The utmost precaution is observed in getting it off the best possible quality, because the standing rule of the firm is that nothing but the finest material shall be used in the production of any article which bears their name, and for this reason great care is exercised in selecting the wood in the first instance. When about to be used these logs are "cross cut" into lengths of from three to four feet. A "length" is then placed on a bogie and run up to a powerful circular saw which cuts it into whatever number of smaller pieces may be required. They are next taken to "the stove," or "drying-house," a two-storey building standing within a few feet from where the saw referred to is situated. Every separate block is here thoroughly dried, so that it will not in the after processes "warp." The heat necessary to accomplish this is necessarily very great, and so ingeniously is it applied, that every piece of wood becomes in time

AS DRY AS A BONE,

and thoroughly seasoned. The next objects of interest were the Planing Machine, the moulding machine, and the Band saw, and it must be said that for the purposes for which they are respectively used, they are simply perfect. To the most casual observer their efficiency, together with the rapidity with which the work is done, must appear miraculous. Mr John Reid—a brother of the famous draught player—who has charge of these machines, kindly stopped them and explained how they did their work. When at rest the Planing Machine looks a very simple affair, but when in motion, with the knives making something like 5000 revolutions a minute, it is different. The *modus operandi* is as follows—a strip of wood is placed between a grooved iron roller, which acts as a feeder, and the iron bench. This roller forces the wood underneath a square iron block, to which are securely bolted—one on each side—two "knives" or plane-irons, each having about 12 inches of sharp edge. It is by means of these knives that the planing is done—revolving of course in an opposite direction from the feeder. When the strip of wood has passed this operation it is as smooth on the surface as any jack and smoothing plane could make it.

THE MOULDING MACHINE IS MOST INGENIOUS. It consists of two upright spindles, to the sides of each of which are attached two "cutters." One makes the small top moulding, the other, of a different shape and set a little lower, makes the "shoulder." The edge of a piece of wood requiring to get such moulding made upon it, is held to the guide. The spindles revolve at such a terrific rate that the onlooker imagines they are standing motionless, and in less time than it takes to write it the moulding is made. A minute later we were witnessing

THE WORKING OF THE BAND SAW.

It might be simply described as being a saw about a quarter of an inch broad and 15 feet in circumference. According to the nature of the work, different widths are used, but each possesses the same feature so far as accuracy is concerned, while the machine itself is so constructed that it can get through the heaviest work without the least trouble; while it is also capable of performing the most delicate kind of fretwork. These three machines were made by Messrs John M'Dowall & Sons, of Johnstone, whose reputation for the making of all kinds of wood-working machinery is world-wide. In the turning departments there are splendid plants of modern machinery in constant operation, so that anything that is "turnable" can be produced. While looking at the swiftly revolving article in the lathe, it changed its shape in the twinkling of an eye, and before one could say he saw it changing. Every workman had his tools close at hand, and he laid down one, picked up another, applied it for a moment, put it down, and then took up another,

AS IF HE HIMSELF WERE PART OF THE

MACHINE,

so quietly and quickly did he do it. Turning is a most particular job, as it requires a steady hand and a calculating eye to excel in it. On the day of our visit every man was working at a different article, and every one of them was as like its fellow as science combined with art could make it. We were next shown over the Box-making section. It is a very large place and splendidly adapted for carrying on the special branches of the industry for which it is used. The roof is of glass, and through it an abundance of daylight is shed upon the benches on the ground flat. There are five or six such benches extending nearly the full length of the building, and at them

WHITE-APRONED WORKMEN

are seated as close to each other as they can with comfort and freedom sit.

Everything in the white wood work way is made here, and it was noticeable that machinery was altogether dispensed with. Everything had been prepared by the aid of machinery, but the putting together of the different parts is altogether, and that with the utmost care, done by hand. As has already been said, it would be impossible to describe the making of everything, but as an instance of how one of the commonest articles is made, let us take an ordinary Mauchline box for holding jewels—

A JEWEL-BOX.

The box-maker gets the sides, the ends, and the top and bottom put down to him. These are all already prepared for him, so that nothing remains for him to do but to make a box of the several pieces. Running down the ends there is a moulding cut out, the width of which is according to the size of the box required. At a fraction of an inch from the edge of this moulding there is a groove cut out, which runs parallel to the moulding. Now, on the sides there is a similar moulding with a groove cut out in the said moulding, so that when the sides and ends are placed together they "fit in" to each other. But before this is done, the requisite amount of glue is applied to the joinings, so that over and above this peculiar form of dovetailing the pieces are firmly bound together by means of the best known quality of glue. The top and bottom are next securely fastened, and the box, which as yet has no lid, leaves the hands of the box-maker. It is then taken to the "paper wheel," for the purpose of getting the top put into proper shape. The "paper wheel"—there are eight or ten always working—is a wheel one side of which is covered with sand-paper. It revolves at a very high speed, and the workman, holding the box to the side covered with the paper by a peculiar turn of his wrist, soon has the top ground into the required shape. The minute particles of wood thrown off by this wheel are as fine as flour, and the room in which the wheels are placed suggests

THE APPEARANCE OF A FLOUR MILL,

for it would be impossible for millers to be whiter than these workmen are. But to proceed—the box whose history we are tracing is then taken to the gallery in the box-making department. In this gallery are a great number of

THE PRESENT DAY MAUCLINE BELLES

engaged in varnishing and polishing. One of their number, with a courtesy which is native to the people of Mauchline, kindly showed us the "preparing" process—that is giving the box a coating of "lac" (properly, shellac) varnish. A "photo," or it may be a "transfer," is then put on the lid. Suppose it be a photo, then it requires to get another coat of "lac" on the top of it to prevent the copal varnish, which comes next, from destroying it. If it be a "transfer," however, which has been used, it is not necessary to re-"lac" it, because copal does not in the slightest degree injure a transfer. It is then sandpapered with a very fine, specially made, quality of paper, after which it is again varnished with copal. It must be understood that after every coat of varnish applied, the box passes through the varnish drying-room. After several applications of copal have been made

THE POLISHING BEGINS.

The first process is called "coursing," which means that the already highly-varnished box is thoroughly rubbed with ground flint, and after this has been done a solution of ground rotten stone and water is applied, vigorously rubbed for a little, and then polished by smartly rubbing the naked hand along the surface. The hand process puts on a beautiful polish, which, however, is made even more brilliant by the touch of a little olive oil. Up till now the box has no moveable lid, indeed, it is only after it leaves the hands of the polisher that it is supplied with that *sine qua non*. The workmen who look after this are called "fitters" or "cleaners." One of them will take the box in his hand, put it against a very small circular saw—the bench of which can be raised or lowered according to the thickness of the wood requiring sawing—and in ten seconds the box is cut in two—the lid on one side and the bottom half on the other. Another workman picks these halves up, and applies each of them to a special paper wheel until the edges are perfectly smooth and meet without showing the slightest twist or inequality. Other workmen are ready to put on the hinges, the locks, or the snaps, and in a few minutes the box is being taken back to the polishing department, where one of the young ladies referred to gives it

ITS FINISHING TOUCH

by rubbing off any dirt or dust which may have adhered to the work during its progress through the fitting-up department. It is now a finished article and taken to one of the store-rooms. Every separate article receives separate attention, and although the processes observed in their manufacture may be different, everything comes under the strictest examination. And in doing so the Messrs Smith know that they are acting wisely, because their firm has long enjoyed an eminent reputation for the excellent quality, and the beautiful, the artistic and reliable character of goods it has so long supplied.

THE PROCESS OF TARTAN-MAKING.

Quite a large proportion of the goods made at the works under review, are covered with tartan, and the firm has special facilities for making it speedily and correctly. The making of tartan used to be a long, tedious and difficult process, now, however, all that is changed. Long ago the tartan maker had all the lines to draw, one by one, with pen in hand, now by the aid of machinery Mr Macalpine, who, by the way, is a nephew of "old Archie," the famous violinist—can draw as many lines as he requires. This is something like the process. The paper is glued round the edges to a *papier mache* board measuring 31 inches square. It is then "ground" with a solution of lamp-black and glue, and rubbed by means of very fine sand-paper, until it is perfectly smooth. The board is then placed on a frame which is fixed to a carriage running on two steel rails shaped like this Λ . The wheels of the carriage—four in number—are so shaped that they fit into this inverted V, and by reason of this, the carriage, with the board on top, cannot possibly oscillate; if it did, the whole pattern might be spoiled. At the end of this carriage there is a tray for holding the colours, and in the centre of it there is a *caoutchouc* roller. The drawing pens, which are fixed upon an adjustable rod, dip into this tray. As the carriage is pushed back they are drawn over the roller (which takes off any surplus colour) on to the paper, and then the lines begin to be made. Only one colour can be drawn at a time, but so perfect is the machine that lines of different colours can be drawn within the hundredth part of an inch from each other. Close beside this wonderful apparatus are

THE MACHINES FOR MAKING THE "TRANSFERS."

These are obtained from steel plates engraved in Edinburgh. The plates, we imagine, would measure about 8 in. by 4 in., and on each of them there would be some half-dozen or eight engravings of persons or places. This is the process employed in producing a transfer. The plate is heated over a steam pan, then the particular engraving required gets a coating of Frankfort Black, in which is mixed a specially prepared quality of Linseed Oil. The edges of the engraving are carefully wiped, allowing, of course, the Black to remain in every line of it. The plate is then placed upon an iron slab, and a piece of the finest silk paper is laid on the engraving. The operator now turns a "cross" which has the effect of moving the slab and plate until the particular engraving is brought between two powerful rollers, on the top one of which are several pieces of woollen material to prevent damage being done to the face of the engraving, and at the same time for better pressing the silk paper right into its tiny lines. The firm has in stock some

THOUSANDS OF SUCH ENGRAVINGS,

representing the famous "bits" where tourists most do go. Indeed, in whatever part of the world the goods are sold, then they must be adorned with local views. The views are all engraved from photographs, and consequently they are at all times reliable. Close at hand there is

A LITHOGRAPHING ROOM,

where work of this description is beautifully executed. It will be evident that the firm must require an immense number of cardboard boxes for packing, as well as strong packing cases for despatching the goods to their different destinations. To meet these requirements, a number of hands are constantly employed in making them. In conclusion, it might be remarked that the Works of the firm are situated at two different parts of the town, and they cover a very large area.

END PARAGRAPH.

The buildings are all two storey in height, and the principal ones are connected by telephone. Nearly 200 skilled hands are employed, and their productions always represent the perfection of tasteful workmanship and finish. For many years the firm has been looked upon and recognised as the largest of the kind in Great Britain. In the past the firm has had an unsullied record, and we trust that it has still a bright and prosperous career before it. Just now the orders are so many and so large, that it is with difficulty the workmen can manage to keep abreast with them.