

cutting at one stroke the curves in seats of wooden chairs. We omit a number of other mechanical operations of perhaps equal importance, and pass to the turning department, where we notice lathes with large knives, held diagonally above the work to be turned. As soon as the wheels are thrown into gear the wood revolves, the knife descends, and before you have time to examine the process, there is turned out a piece of workmanship more accurately executed than human hands could have produced; every piece in a thousand being exactly like each of the others. The blade of the knife is bent into the shape of the pattern to be turned, and as far as we can judge, no skill on the part of the operator is required. We need scarcely observe that for every pattern there must be a separate knife. There is much turning done in this establishment, however, where the hand still guides the tool, and guides it to admiration. Top rails of chairs, and other portions of work (requiring any arc of their respective circles) are cut by cylindrical or "tub" saws, placed horizontally with their teeth on the periphery at one end. Here is a drill or boring machine, for various kinds of work, with adjustable cutters, boring three or more holes at once. This, as well as many other of their machines, has been considerably modified and improved by themselves. Here also is an iron planer, used in repairing, as well as in making new machinery by their own machinists. This is of their own construction. Daniell and Woodworth wood planers are in constant operation. On the second floor wooden chairs are made with astonishing celerity. Justice to the inventive ingenuity of the Messrs. Jacques & Hay require that we should mention in this place, an admirably conceived and well-executed piece of mechanism for sawing and boring, at one brief operation, the several four pieces which compose the seat-frame of the cane chair. This, we learn, is one of their best and most effective applications of mechanism in the factory. For mortising there is, in a convenient frame, a vertical cutter, with a lateral movement, adjustable to the length of mortise required. The cutting of tennons, other moulding machinery, and a great variety of processes well worthy of notice must be passed over, at least for the present.

In this establishment nothing seems forgotten or neglected that could be conducive to its efficiency, safety, or comfort of the three hundred hands employed. As a precaution against accident by fire, for instance, the place is heated by steam, there being no fire whatever in the building. The glue required on each floor is kept in a liquid state by steam, conducted up through the building for that

purpose, as well as for heating a drying-room, necessary for removing any moisture from parts which are to be glued together. An additional and wise precaution consists in a tank, containing eight thousand gallons of water, being placed above all, ready, at a moment's notice to be precipitated on any part of the building by means of a hose on each floor, attached to the pipe leading from the tank down to the bottom. In each room there is a vessel of filtered water, which, when necessary, is iced for the use of the men. These little attentions, on the part of the employers, to the comforts of the employed are never thrown away, and it is very agreeable to notice them. Let us hope that between the two classes the elements of progress, now so active, may evolve a more generally recognised and operative identity of interest.

There in the centre of this extensive apartment you perceive a large platform hoist moved by steam power; it is laden with some of those pieces you saw receive their shapes below, and it is here they are to become chairs. On the next floor the cabinet makers' operations interest you. This is a place of comparative quiet. The cabinet department is superintended by Mr. Rogers, to whom you are introduced by Mr. Craig, who now bids you good morning.

The skill and dexterity with which wood is converted into beautiful furniture all through this department are truly wonderful. Here are a number of boys, too, "learning their trade," under experienced workmen. Higher yet, on the fifth storey, you find busy men contributing their quota of labor and skill as repairers, carpenters, &c., but your curiosity has been awakened—you wish to look into the designer's studio. This is the place for the solution of the problem—"Given the use and material of the article to find a beautiful shape," and this is worthy the best efforts of art. The taste that has been created of late years by the great profusion of art productions must be gratified. And it must be gratified at home. Picture galleries and collections of works of art are not enough, all our household gods should conform to the true principles of the beautiful and the pure; not pictured walls and sculptured marble alone will satisfy; not only must the carpet vie with the natural *flora*, and the hangings speak the language of design, but whatever is to have a place in the "temple of the affections" should reveal or suggest ideas of manliness, purity, beauty and truth. We would also respectfully remind those who are engaged in manufacturing articles of furniture of whatever kind for the "lower orders," that the delf ware in the humblest cottage has borrowed forms