some purpose or other. If it is expected to go over them this way, the glue had better be spread a little more liberally, lest the heat used to warm up cause the wood to absorb so much as to spoil the joint. Of course, it is better to avoid this heating with hot cauls afterwards if it can be done.

You will find, too, that the farther you get into this subject of absorption of glue into wood, and the relation of temperature to it, the more complications you will discover. For example, while it assists penetration to have the wood warmed, it is contended by authorities that it can easily be made too warm and the wood thus become what we might term "hungry" for water and absorb the moisture from the glue so quickly as to prevent the glue from even spreading or penetrating properly. That is how we sometimes get as a final result what are termed "blisters." It is maintained that moderate temperatures will produce the best penetration, and it has been pointed out heretofore that a common fault is to use glue at too high a temperature. One authority suggests that glue should be used with the temperature well below 160 degrees F., with the wood on which the glue is to be spread somewhere between 90 and 100 degrees. There are others, and especially those who don't try to raise the temperature of the wood much above the temperature of the glue room itself, who get about the same result sought above by using the glue at a lower temperature. The way they do this is to have two glue pots or receptacles, one in which the glue is heated primarily, in which the temperature may be about 160 degrees, and another one in which the glue, after being properly melted or cooked, is poured, and the temperature here is kept at about 100 degrees. This latter receptacle is the one from which the glue is used, so that if the wood is at a temperature of around 70 or 75 degrees, there shouldn't be enough difference to amount to much, and the wood will not be so hungry for moisture as if it were heated to a higher temperature, say 90 or 100 degrees.

Another complication in this connection is found in the effect the different seasons of the year have on the work in the glue room. In the hot period of midsummer, where the temperature naturally reaches from 80 to 95 degrees, and frequently will stand at 100 degrees and over in the glue room, the wood stays at a pretty high temperature without effort at raising it, and also the glue shows a tendency to keep up at a high notch of temperature. The result is that it generally takes more glue to do the same work in August than in the winter, or even during the cooler months of spring and fall. In other words, to get good results the glue must be spread a little more freely, and thus in the end will make the glue work cost more, as far as glue is concerned, in summer than in winter. It would not make any difference if the glue and the wood and the interior of the glue room were kept at the same temperature all the year round, but this we never do. The glue room may be warmed in the winter, but it is never kept in the same condition that prevails in the midsummer, therefore the same amount of glue may do more work because of the difference in absorption and penetration into the wood.

It is also argued that a difference of only 10 degrees in temperature of the stock being glued may affect the strength of the glue joint 50 per cent. This is a complication that it is pretty hard to figure out and see clearly all the way through. There are undoubtedly any number of other factors that enter, one of them being that of pressure. For example, if the conditions of the glue and the wood are just right, there is $n \to a$ great deal of pressure required—just enough to press the wood together firmly. If, however, conditions are such that the tendency of the glue is to chill and remain in a thickened body between the layers of wood, an extra amount of pressure may relieve the situation by forcing the glue into the wood through pressure, and thus thin down the layer left between the sheets. It is better to have what might be termed a natural penetration rather than the forced, yet we must consider the commercial side as well as the technical, and if large quantities of built-up panels are being made, it is much better, easier and cheaper to furnish a little extra pressure than to take extra pains about the temperature of the wood. That is why the glue practice in big panel departments and cabinet shops differs so much, and why one who handles glue and learns only how it is handled in one place may be somewhat at a loss in another place until he has figured out the different local factors that enter into the work.

FURNITURE A SIGN OF CHARACTER.

With the downfall of Napoleon began the French decay, so let us look to America for the next change and comparison in style and character. Colonial is a native style, and is the most becoming style for the people of this continent, because of its historical connections and its beauty, and especially does it depict the solid gradeur from which it sprung. We never find it painted, gilded, or adorned with flaring brass, but in the elegance of its modesty standing for what it is. We often find it veneered upon a solid and stocky foundation, but the people also had a cloak of politeness, a picturesque attire and a quaintness of home surroundings which quickens our love and admiration for every figure and picture of colonial times.

It would seem that the standard of the mind and character of any period would leave its marks upon the furniture of that time, but what of the present? We have entered into a new period of activity. There is a new theology and a marked difference in our political aspect. We are living in the greatest inventive age the world has ever known, and this new activity is world-wide in its effects. Its theology is as broad as the brotherhood of man; and there is now one political party with the same name, object and ambition in all the countries of Europe and America. The activity of invention is also world-wide, and the great inventions of each nation are soon enjoyed by all. The designs in furniture corresponding to this activity are sometimes called new. art, mission, arts and crafts, and its philosophy is grand in its simplicity. The philosophy of it is to follow the grain. At first thought it does not seem to imply much, but, as carving cuts across the grain, therefore weakening the stock, it is not much used, but marquetry in new designs and applied mounts of hammered brass and copper are used. Thus, dominating influence of our time might be summed up, truth and justice in theology and society, and simplicity in art. The cosy corner and the den were but forerunners of the bungalow. A large, airy living room now takes the place of the sitting-room and parlor, and the furniture of the new philosophy has already invaded the living room, diningroom and café, and is destined to be the leading style which marks the age in which we live. The standard of character is also climbing the ladder of advancement, fostered by the opportunities of free education from public schools, magazines and newspapers, the extent of which may be waiting for some national crisis to exhibit its true value, like a wrecked car, for new furniture show us the solid wood, brighter than the subdued surface which we are accustomed to in daily life. This is something that cannot be said of the furniture of any period but our own, because the furniture of all other times has been so. embellished with carving, veneer, paint, varnish, gilt or glitter as to cloak the surface with something more showy than the stock itself .- Furniture Worker.