three ounces of gum lac, and four ounces of rosin ; after­wards add six ounces of the cheapest kind of turpentine ; mix with it a proper quantity of vermilion when it is to be uſed.

*Gold-coloured Varniſh.—*Pound ſeparately four ounces of stick lac, four ounces of gamboge, four ounces of dragon’s blood, four ounces of anotta, and one ounce of ſaffron : put each of them ſeparately into a quart of alcohol, and expoſe them for five days in a narrow-mouthed bottle to the sun, or keep them during that time in a very warm room, ſhaking them every now and then to hasten the ſolution. When they are all melted, mix them together. More or leſs of each of theſe ingredients will give the different tints of gold according as they are combined. In order to make silver imitate gold exactly when covered with this varnish, the quantity of ingredients must be ſomewhat greater. The method of gilding silver-leaf, &c. with this varniſh is as fol­lows : The silver-leaf being fixed on the subject, in the same manner as gold-leaf, by the interposition of proper gluti­nous matters, the varniſh is ſpread upon the piece with a bruſh or pencil. The first coat being dry, the piece is again and again washed over with the varnifh till the colour ap­pears ſufficiently deep. What is called *gilt leather,* and many picture frames, have no other than this counterfeit gilding. Walking them with a little rectified ſpirit of wine affords a proof of this ; the ſpirit dissolving the varnish, and leaving the silver leaf of its own whiteneſs. For plain frames, thick tin-foil may be uſed instead of silver. The tin-leaf, fixed on the piece with glue, is to be burniſhed, then polished with emery and a fine linen cloth, and after­wards with putty applied in the same manner : being then lacquered over with the varnish five or six times, it looks very nearly like burniſhed gold. The same varnish, made with a leſs proportion of the colouring materials, is applied alſo on works of braſs ; both for heightening the colour of the metal to a reſemblance with that of gold, and for preſerving it from being tarniſhed or corroded by the air.

*Oil Varniſhes.—* Gum copal and amber are the ſubstances principally employed in oil varnishes ; they posseſs the pro­perties necessary for varnishes, ſolidity and tranſparency.— The copal being whitest, is uſed for varniſhing light, the amber for dark colours. It is best to dissolve them before mixing them with the oil, becauſe by this means they are in leſs danger of being ſcorched, and at the same time the varnish is more beautiful. They ſhould be melted in a pot on the fire ; they are in a proper state for receiving the oil when they give no reſistance to the iron ſpatula, and when they run off from it drop by drop. The oil employed ſhould be a drying oil, and perfectly free from greaſe. It ſhould be poured into the copal or amber by little and little, constantly stirring the ingredients at the same time with the ſpatula. When the oil is well mixed with the copal or am­ber, take it off the fire ; and when it is pretty cool, pour in a greater quantity of the essence of turpentine than the oil that was uſed. After the varniſh is made, it ſhould be paſſed through a linen cloth. Oil varniſhes become thick by keeping ; but when they are to be uſed, it is only necessary to pour in a little essence of turpentine, and to put them for a little on the fire. The turpentine is necessary in oil varniſhes to make them dry properly ; generally twice as much of it is uſed as of oil. Leſs is necessary in ſummer than in winter. Too much oil hinders the varniſh from drying ; but when too little is uſed, it cracks and does not ſpread properly. We ſhall ſubjoin the most uſeful oil varniſhes :

*White Copal Varniſh.—* On 16 ounces of melted copal pour four, six, or eight ounces of linſeed oil, boiled and quite free from greaſe. When they are well mixed, take them off the fire (not forgetting to ftir them properly) ; and when pretty cool, pour in 16 ounces of the essence of Venice turpentine. Paſs the varniſh through a cloth.— Amber varniſh is made in the same way.

*Black Varniſh for Coaches and Iron Work.—This* varniſh is compoſed of bitumen of Palestine, rosin, and amber, melt­ed ſeparately, and afterwards mixed ; the oil is then added, and afterwards the turpentine, as directed above. The uſual proportions are, 12 ounces of amber, two ounces of rosin, two ounces of bitumen, six of oil, and 12 of the eſſence of turpentine.—Golden-coloured varniſh may be made alſo by ſubstituting linſeed oil for alcohol.

*Essential Oil Varniſhes.—*The only essential oil varniſhes uſed are for pictures. Picture varniſhes ſhould be white, light, and quite tranſparent, which will preſerve the colours without giving them any diſagreeable tint ; and it ſhould be poſſible to take them off the picture without injuring it. They are uſually made of gum mastich and turpentine dissolved together in ſome essential oil. The varniſh is passed through a cloth, and allowed to clarify. It is applied cold to the picture.

*Varniſh for Glaſs, in order to preſerve it from the Rays of the Sun.—*Pulverise a quantity of gum adragant, and let it dissolve for 24 hours in the white of eggs well beat up ; then rub it gently on the glaſs with a bruſh.

Varniſhes before they are uſed ſhould be carefully kept from dust, which would ſpoil them; and they ſhould be kept in a vessel quite clean and dry. When uſed, they ſhould be lifted lightly with a bruſh, and ſpread upon a ground alto­gether free from dirt and moisture. The ſubstance, after­being varniſhed, ſhould be expoſed to the heat of the sun, or placed in a warm room covered with a glaſs case, to keep out all filth. Oil varniſhes require more heat than al­cohol varniſhes. The varniſh ſhould be put on very quick­ly, making great strokes with the pencil or bruſh, taking care that theſe strokes never croſs one another ; it ſhould be ſpread equally, and never thicker than a leaf of pa­per ; a second coat ſhould not be put on till the first is quite dry. If the varniſh, after being put on, becomes dull and uneven, it must be taken off entirely, and new varniſh put on.

When wainſcot is to be varniſhed, it is first painted of a wooden colour. This colour is made by infuſing in water either red or yellow ochre (according to the colour wiſhed for), terra ombria (a kind of ochre) and white lead ; into this as much as necessary is put of *parchment paste.* Two thin coats of this are to be put on, and, after they are quite dry, the varniſh.

Varniſhes are poliſhed with pumice-stone and tripoli earth. The pumice-stone must be reduced to an impal­pable power, and put upon a piece of ſerge moistened with water ; with this the varniſhed ſubstance is to be rubbed lightly and equally. The tripoli must alſo be reduced to a very fine powder, and put upon a clean woollen cloth moistened with olive oil, with which the poliſhing is to be performed. The varniſh is then to be wiped with ſoft li­nen, and, when quite dry, cleaned with starch or Spaniſh white, and rubbed with the palm of the hand or with a linen cloth.

To recover colours or varniſh, and to take off the dirt and filth which may adhere to them, a ley is uſed made of potaſh and the aſhes of lees of wine. Take 48 ounces of potaſh, and 16 of the above-mentioned aſhes, and put them into six quarts of water, and the ley is made : instead of the aſhes an equal quantity of potaſh would probably do as well. To clean dirty colours, dilute ſome of this ley with four times its quantity of water, and rub the picture with it ; then waſh it with river water; and when dry, give it a