

piece, a basso di camera that comes modestly into the room without a name, yet there is nothing except No. 91 that sends such a thrill through the true connoisseur. The outline is grotesque but original, the model full and swelling but not bumpy, the wood detestable; the back is hare-wood, but without a vestige of figure; so it might just as well be elm: the belly, instead of being made of mountain deal grown on the sunny side of the Alps, is a piece of house timber. Now these materials would kill any other maker; yet this mighty bass stands its ground. Observe the fibre of the belly; here is the deepest red varnish in the room, and laid on with an enormous brush. Can you see the fibre through the thin varnish of Sanctus Seraphin as plainly as you can see the fibre through this varnish laid on as thick as paint? So much for clearness. Now for colour. Let the student stand before this bass, get the varnish into his mind, and then walk rapidly to any other instrument in the room he has previously determined to compare with it. This will be a revelation to him if he has eyes in his head.

And this miracle comes in without a name, and therefore, is passed over by all the sham judges. And why does it come without a name? I hear a French dealer advised those who framed the catalogue. But the fact is that if a man once narrows his mind to three or four makers, and imagines they monopolize excellence, he never can be a judge of old instruments, the study is so wide and his mind artificially narrowed. Example of this false method: Mr. Faulconer sends in a bass, which he calls Andreas Guarnerius. An adviser does not see that, and suggests "probably by Amati." Now there is no such thing as "*probably* by Amati," any more than there is probably the sun or the moon. That bass is by David Tecchler, of Rome; but it is a masterpiece; and so, because he has done better than usual, the poor devil is to be robbed of his credit, and it is to be given, first to one maker *who is in the ring* and then to another, *who is in the ring*. The basso di camera, which not being in the ring, comes without a name, is by Domenico Montagnana of Venice, the greatest maker of basses in all Venice or Cremona except one. If this bass had only a decent piece of wood at the back, it would extinguish all the other basses. But we can remedy that defect. Basses by this maker exist with fine wood. Mr. Hart, senior, sold one some twenty years ago with yellow varnish, and wood striped like a tiger's back. Should these

lines meet the eye of the purchaser, I shall feel grateful if he will communicate with me thereupon.

I come now to the last of the Goths, thus catalogued, No. 100, "ascribed to Guarnerius. Probably by Storioni."

Lorenzo Storioni is a maker who began to work at Cremona about 1780. He has a good model but wretched spirit varnish. Violin No. 100 is something much better. It is a violin made before 1760 by Landolfo of Milan. He is a maker well known to experienced dealers who can take their minds out of the ring, but, as the *writers* seem a little confused, and talk of two Landulphs, a Charles and a Ferdinand, I may as well say here that the two are one. This is the true ticket:—

Carolus Ferdinandus Landulphus,
fecit Mediolani in via S. Mar-
garite, anno 1756.

Stiff inner bought really something like Joseph Guarnerius; but all the rest quite unlike: scroll very mean, varnish good, and sometimes very fine. Mr. Moore's, in point of varnish, is a fine specimen. It has a deeper, nobler tint than usual. This maker is very interesting, on account of his being absolutely the last Italian who used the glorious varnish of Cremona. It died first at Cremona; lingered a year or two more at Venice; Landolfo retained it at Milan till 1760, and with him it ended.

In my next and last article I will deal with the varnish of Cremona, as illustrated by No. 91 and other specimens, and will enable the curious to revive that lost art if they choose.

FOURTH LETTER.

August 31st, 1872.

THE fiddles of Cremona gained their reputation by superior tone, but they hold it now mainly by their beauty. For thirty years past violins have been made equal in model to the *chef-d'œuvres* of Cremona, and stronger in wood than Stradi-

uarius, and more scientific than Guarnerius in the thicknesses. This class of violin is hideous, but has one quality in perfection—POWER; whilst the masterpieces of Cremona eclipse every new violin in sweetness, oiliness, crispness, and volume of tone as distinct from loudness. Age has dried their vegetable juices, making the carcass much lighter than that of a new violin, and those light dry frames vibrate at a touch.

But M. Fétis goes too far when he intimates that Stradiuarius is louder as well as sweeter than Lupot, Gand, or Bernardel. Take a hundred violins by Stradiuarius and open them; you find about ninety-five patched in the centre with new wood. The connecting link is a sheet of glue. And is glue a fine resonant substance? And are the glue and the new wood of John Bull and Jean Crapaud transmogrified into the wood of Stradiuarius by merely sticking on to it? Is it not extravagant to quote patched violins as beyond rivalry in all the qualities of sound? How can they be the loudest, when the centre of the sound-board is a mere sandwich, composed of the maker's thin wood, a buttering of glue, and a huge slice of new wood?

Joseph Guarnerius has plenty of wood; but his thicknesses are not always so scientific as those of the best modern fiddle-makers; so that even he can be rivalled in power by a new violin, though not in richness and sweetness. Consider, then, these two concurrent phenomena, that for twenty-five years new violins have been better made for sound than they ever were made in this world, yet old Cremona violins have nearly doubled in price, and, you will divine, as the truth is, that old fiddles are not bought by the ear alone. I will add that 100 years ago, when the violins of Brescia and of Stradiuarius and Guarnerius were the only well-modelled violins, they were really bought by the ear, and the prices were moderate. Now they are in reality bought by the eye, and the price is enormous. The reason is that their tone is good but their appearance inimitable; because the makers chose fine wood and laid on a varnish highly coloured, yet clear as crystal, with this strange property—it becomes far more beautiful by time and usage: it wears softly away, or chips boldly away, in such forms as to make the whole violin picturesque, beautiful, various, and curious.

To approach the same conclusion by a different road—No. 94 is a violin whose picturesque beauty I have described already;

twenty-five years ago Mr. Plowden gave £450 for it. It is now, I suppose, worth £500. Well, knock that violin down and crack it in two places, it will sink that moment to the value of the "violon du diable," and be worth £350. But collect twenty amateurs all ready to buy it, and, instead of cracking it, dip it into a jar of spirits and wash the varnish off. Not one of those customers will give you above £40 for it; nor would it in reality be worth quite so much in the market. Take another example. There is a beautiful and very perfect violin by Stradiuarius, which the *Times*, in an article on these instruments, calls La Messie. These leading journals have private information on every subject, even grammar. I prefer to call it—after the very intelligent man to whom we owe the sight of it—the Vuillaume Stradiuarius. Well, the Vuillaume Stradiuarius is worth, as times go, £600 at least. Wash off the varnish, it would be worth £35; because, unlike No 94, it has one little crack. As a further illustration that violins are heard by the eye, let me remind your readers of the high prices at which numberless copies of the old makers were sold in Paris for many years. The inventors of this art undertook to deliver a new violin, that in usage and colour of the worn parts should be exactly like an old and worn violin of some favourite maker. Now, to do this with white wood was impossible; so the wood was baked in the oven or coloured yellow with the smoke of sulphuric acid, or so forth, to give it the colour of age; but these processes kill the wood as a vehicle of sound; and these copies were, and are, the worst musical instruments Europe has created in this century; and, bad as they are at starting, they get worse every year of their untuneful existence; yet, because they flattered the eye with something like the light and shade and picturesqueness of the Cremona violin, these pseudo-antiques, though illimitable in number, sold like wildfire; and hundreds of self-deceivers heard them by the eye, and fancied these tinpots sounded divinely. The hideous red violins of Bernardel, Gand, and an English maker or two, are a reaction against those copies; they are made honestly with white wood, and they will, at all events, improve in sound every year and every decade. It comes to this, then, that the varnish of Cremona, as operated on by time and usage, has an inimitable beauty, and we pay a high price for it in second-class makers, and an enormous price in a fine Stradiuarius or Joseph Guarnerius. No wonder, then, that many violin-makers

have tried hard to discover the secret of this varnish; many chemists have given days and nights of anxious study to it. More than once, even in my time, hopes have run high, but only to fall again. Some have even cried Eureka! to the public: but the moment others looked at their discovery and compared it with the real thing, "inextinguishable laughter shook the skies." At last despair has succeeded to all that energetic study, and the varnish of Cremona is sullenly given up as a lost art.

I have heard and read a great deal about it, and I think I can state the principal theories briefly, but intelligibly.

1. It used to be stoutly maintained that the basis was amber; that these old Italians had the art of infusing amber without impairing its transparency; once fused, by dry heat, it could be boiled into a varnish with oil and spirit of turpentine, and combined with transparent yet lasting colours. To convince me, they used to rub the worn part of a Cremona with their sleeves, and then put the fiddle to their noses, and smell amber. Then I burning with love of knowledge, used to rub the fiddle very hard and whip it to my nose, and not smell amber. But that might arise in some measure from there not being any amber there to smell. (N. B.—These amber-seeking worthies never rubbed the *coloured* varnish on an old violin. Yet their theory had placed amber there.)

2. That time does it all. The violins of Stradiuarius were raw, crude things at starting, and the varnish rather opaque.

3. Two or three had the courage to say it was spirit varnish, and alleged in proof that if you drop a drop of alcohol on a Stradiuarius, it tears the varnish off as it runs.

4. The far more prevalent notion was that it is an oil varnish, in support of which they pointed to the rich appearance of what they call the bare wood, and contrasted the miserable hungry appearance of the wood in all old violins known to be spirit varnished—for instance, Nicholas Gagliano, of Naples, and Jean Baptiste Guadagnini, of Piacenza, Italian makers contemporary with Joseph Guarnerius.

5. That the secret has been lost by adulteration. The old Cremonese and Venetians got pure and sovereign gums, that have retired from commerce.

Now, as to theory No 1.—Surely amber is too dear a gum and too impracticable for two hundred fiddle-makers to have

used in Italy. Till fused by dry heat it is no more soluble in varnish than quartz is; and who can fuse it? Copal is inclined to melt, but amber to burn, to catch fire, to do anything but melt. Put the two gums to a lighted candle, you will then appreciate the difference. I tried more than one chemist in the fusing of amber; it came out of their hands a dark brown opaque substance, rather burnt than fused. When really fused it is a *dark olive green, as clear as crystal*. Yet I never knew but one man who could bring it to this, and he had special machinery, invented by himself, for it; in spite of which he nearly burnt down his house at it one day. I believe the whole amber theory comes out of a verbal equivoque; the varnish of the Amati was called amber to mark its rich colour, and your *à priori* reasoners went off on that, forgetting that amber must be an inch thick to exhibit the colour of amber. By such reasoning as this Mr. Davidson, in a book of great general merit, is misled so far as to put down powdered glass for an ingredient in Cremona varnish. Mark the logic. Glass in a sheet is transparent; so if you reduce it to powder it will add transparency to varnish. Imposed on by this chimera, he actually puts powdered glass, an opaque and insoluble sediment, into four receipts for Cremona varnish.

But the theories 2, 3, 4, 5 have all a good deal of truth in them; their fault is that they are too narrow, and too blind to the truth of each other. IN THIS, AS IN EVERY SCIENTIFIC INQUIRY, THE TRUE SOLUTION IS THAT WHICH RECONCILES ALL THE TRUTHS THAT SEEM AT VARIANCE.

The way to discover a lost art, once practised with variations by a hundred people, is to examine very closely the most brilliant specimen, the most characteristic specimen, and, indeed, the most extravagant, specimen—if you can find one. I took that way, and I found in the chippiest varnish of Stradiuarius, viz., his dark red varnish, the key to all the varnish of Cremona, red or yellow. (N.B.—The yellow always beat me dead, till I got to it by this detour.) There is no specimen in the collection of this red varnish so violent as I have seen; but Mr. Pawle's bass, No. 187, will do. Please walk with me up to the back of that bass, and let us disregard all hypotheses and theories, and use our eyes. What do we see before us? A bass with a red varnish that chips very readily off what people call the bare wood. But never mind what these echoes of echoes call it. What *is* it?

It is not bare wood. Bare wood turns a dirty brown with age. This is a rich and lovely yellow. By its colour and its glassy gloss, and by disbelieving what echoes say and trusting only to our eyes, we may see at a glance it is not bare wood, but highly varnished wood. This varnish is evidently oil, and contains a gum. Allowing for the tendency of oil to run into the wood, I should say *four coats of oil varnish*: and this they call the bare wood. We have now discovered the first process: a clear oil varnish laid on the white wood with some transparent gum not high coloured. Now proceed a step further; the red and chippy varnish, what is that? "Oh, that is a varnish of the same quality but another colour," say the theorists No. 4. "How do you know?" say I. "It is self-evident. Would a man begin with oil varnish and then go into spirit varnish?" is their reply. Now observe, this is not humble observation, it is only rational preconception. But if discovery has an enemy in the human mind, that enemy is preconception. Let us then trust only to humble observation. Here is a clear varnish without the ghost of a chip in its nature; and upon it is a red varnish that is all chip. Does that look as if the two varnishes were homogeneous? Is chip precisely the same thing as no chip? If homogeneous, there would be chemical affinity between the two. But this extreme readiness of the red varnish to chip away from the clear marks a defect of chemical affinity between the two. Why, if you were to put your thumbnail against that red varnish, a little piece would come away directly. This is not so in any known case of oil upon oil. Take old Forster, for instance; he begins with clear oil varnish; then on that he puts a distinct oil varnish with the colour and transparency of pea-soup. You will not get his pea-soup to chip off his clear varnish in a hurry. There is a bass by William Forster in the collection a hundred years old; but the wear is confined to the places where the top varnish must go in a played bass. Everywhere else his pea-soup sticks tight to his clear varnish, being oil upon oil.

Now, take a perfectly distinct line of observation. In varnishes oil is a diluent of colour. It is not in the power of man to charge an oil varnish with colour so highly as the top varnish of Mr. Pawle's bass is charged. And it must be remembered that the clear varnish below has filled all the pores of the wood; therefore the diluent cannot escape into the wood, and so leave the colour undiluted; if that red varnish

was ever oil varnish, every particle of the oil must be there still. What, in that mere film so crammed with colour? Never! Nor yet in the top varnish of the Spanish bass, which is thinner still, yet more charged with colour than any topaz of twice the thickness. This, then, is how Antonius Stradiarius varnished Mr. Pawle's bass.—He began with three or four coats of oil varnish containing some common gum. He then laid on several coats of red varnish, made by simply dissolving some fine red unadulterated gum in spirit; the spirit evaporated and left pure gum lying on a rich oil varnish, from which it chips by its dry nature and its utter want of chemical affinity to the substratum. On the Spanish bass Stradiarius put not more, I think, than two coats of oil varnish, and then a spirit varnish consisting of a different gum, less chippy, but even more tender and wearable than the red. Now take this key all round the room, and you will find there is not a lock it will not open. Look at the varnish on the back of the "violon du diable," as it is called. There is a top varnish with all the fire of a topaz and far more colour; for slice the deepest topaz to that thinness, it would pale before that varnish. And why? 1st. Because this is no oily dilution; it is a divine unadulterated gum, left there undiluted by evaporation of the spirituous vehicle. 2nd. Because this varnish is a jewel with the advantage of a foil behind it; that foil is the fine oil varnish underneath. The purest specimen of Stradiarius's red varnish in the room is, perhaps, Mr. Fontaine's kit. Look at the back of it by the light of these remarks. What can be plainer than the clear oil varnish with not the ghost of a chip in it, and the glossy top varnish, so charged with colour, and so ready to chip from the varnish below, for want of chemical affinity between the varnishes? The basso di camera by Montagnana is the same thing. See the bold wear on the back revealing the heterogeneous varnish below the red. *They are all the same thing.* The palest violins of Stradiarius and Amati are much older and harder worn than Mr. Pawle's bass, and the top varnish not of a chippy character: yet look at them closely by the light of these remarks, and you shall find one of two phenomena—either the tender top varnish has all been worn away, and so there is nothing to be inferred one way or other, or else there are flakes of it left; and, if so, these flakes, however thin, shall always betray, by the superior vividness of their colour to the colour of the subjacent oil varnish, that they are not

oil varnish, but pure gum left there by evaporating spirit on a foil of beautiful old oil varnish. Take Mrs. Jay's Amatisé Stradiuarius; on the back of that violin towards the top there is a mere flake of top varnish left by itself; all round it is nothing left but the bottom varnish. That fragment of top varnish is a film thinner than gold leaf; yet look at its intensity; it lies on the fine old oil varnish like fixed lightning, it is so vivid. It is just as distinct from the oil varnish as is the red varnish of the kit. Examine the Duke of Cambridge's violin, or any other Cremona instrument in the whole world you like; it is always the same thing, though not so self-evident as in the red and chippy varnishes. The Vuillaume Stradiuarius, not being worn, does not assist us in this particular line of argument; but it does not contradict us. Indeed, there are a few little chips in the top varnish of the back, and they reveal a heterogeneous varnish below, with its rich yellow colour like the bottom varnish of the Pawle bass. Moreover, if you look at the top varnish closely you shall see what you never see in a new violin of our day; not a vulgar glare upon the surface, but a gentle inward fire. Now that inward fire, I assure you, is mainly caused by the oil varnish below; the orange varnish above has a heterogeneous foil below. That inward glow is characteristic of all foils. If you could see the Vuillaume Stradiuarius at night and move it about in the light of a candle, you would be amazed at the fire of the foil and the refraction of light.

Thus, then, it is. The unlucky phrase "varnish of Cremona" has weakened men's powers of observation by fixing a pre-conceived notion that the varnish must be all one thing. THE LOST SECRET IS THIS. THE CREMONA VARNISH IS NOT A VARNISH, BUT TWO VARNISHES; AND THOSE VARNISHES ALWAYS HETEROGENEOUS: THAT IS TO SAY, FIRST THE PORES OF THE WOOD ARE FILLED AND THE GRAIN SHOWN UP BY ONE, BY TWO, BY THREE, AND SOMETIMES, THOUGH RARELY, BY FOUR COATS OF FINE OIL VARNISH WITH SOME COMMON BUT CLEAR GUM IN SOLUTION. THEN UPON THIS OIL VARNISH, WHEN DRY, IS LAID A HETEROGENEOUS VARNISH, VIZ. A SOLUTION IN SPIRIT OF SOME SOVEREIGN, HIGH COLOURED, PELLUCID, AND, ABOVE ALL, TENDER GUM. Gum-lac, which for forty years has been the mainstay of violin-makers, must never be used; not one atom of it. That vile, flinty gum killed varnish at Naples and Piacenza a hundred and forty years ago, as it kills varnish now. Old Cremona shunned it, and whoever employs a grain of it, commits wilful suicide as a Cremonese varnisher.

It will not wear; it will not chip; it is in every respect the opposite of the Cremona gums. Avoid it utterly, or fail hopelessly, as all varnishers, have failed since that fatal gum came in. The deep red varnish of Cremona is pure dragon's blood; not the cake, the stick, the filthy trash, which, in this sinful and adulterating generation, is retailed under that name, but the tear of dragon's blood, little lumps deeper in colour than a carbuncle, clear as crystal, and fiery as a ruby. Unadulterated dragon's blood does not exist in commerce west of Temple-bar; but you can get it by groping in the City as hard as Diogenes had to grope for an honest man in a much less knavish town than London. The yellow varnish is the unadulterated tear of another gum, retailed in a cake like dragon's blood, and as great a fraud. All cakes and sticks presented to you in commerce as gums are audacious swindles. A true gum is the tear of a tree. For the yellow tear, as for the red, grope the City harder than Diogenes. The orange varnish of Peter Guarnerius and Stradiuarius is only a mixture of these two genuine gums. Even the milder reds of Stradiuarius are slightly reduced with the yellow gum. The Montagnana bass and No. 94 are pure dragon's blood mellowed down by time and exposure only.

A violin varnished as I have indicated will look a little better than other new violins from the first; the back will look nearly as well as the Vuillaume Stradiuarius, but not quite. The belly will look a little better if properly prepared; will show the fibre of the deal better. But its principal merit is, that like the violins of Cremona, it will vastly improve in beauty if much exposed and persistently played. And that improvement will be rapid, because the tender top varnish will wear away from the oily substratum four times as quickly as any vulgar varnish of the day will chip or wear. We cannot do what Stradiuarius could not do—give to a new violin the peculiar beauty, that comes to heterogeneous varnishes of Cremona from age and honest wear; but, on the other hand, it is a mistake to suppose that one hundred years are required to develop the beauty of any Cremona varnishes, old or new. The ordinary wear of a century cannot be condensed into one year or five, but it can be condensed into twenty years. Any young amateur may live to play on a magnificent Cremona made for himself, if he has the enthusiasm to follow my directions. Choose the richest and finest wood; have the violin made after the pattern of a rough Joseph Guarnerius;

then you need not sand-paper the back, sides, or head, for sand-paper is a great enemy to varnish; it drives more wood-dust into the pores than you can blow out. If you sand-paper the belly, sponge that finer dust out, as far as possible, and varnish when dry. That will do no harm, and throw up the fibre. Make your own linseed oil—the linseed oil of commerce is adulterated with animal oil and fish oil, which are non-drying oils—and varnish as I have indicated above, and when the violin is strung treat it regularly with a view to fast wear; let it hang up in a warm place, exposed to dry air, night and day. Never let it be shut up in a case except for transport. Lend it for months to the leader of an orchestra. Look after it, and see that it is constantly played and constantly exposed to dry air all about it. Never clean it, never touch it with a silk handkerchief. In twenty years your heterogeneous varnishes will have parted company in many places. The back will be worn quite picturesque; the belly will look as old as Joseph Guarnerius; there will be a delicate film on the surface of the grand red varnish mellowed by exposure, and a marvellous fire below. In a word, you will have a glorious Cremona fiddle. Do you aspire to do more, and to make a downright old Cremona violin? Then, my young friend, you must treat yourself as well as the violin; you must not smoke all day, nor the last thing at night; you must never take a dram before dinner and call it bitters; you must be as true to your spouse as ever you can, and, in a word, live moderately, and cultivate good temper and avoid great wrath. By these means, *Deo volente*, you shall live to see the violin that was made for you and varnished by my receipt, as old and worn and beautiful a Cremona as the Joseph Guarnerius No. 94, beyond which nothing can go.

To show the fiddle-maker what may be gained by using as little sand-paper as possible, let him buy a little of Maunder's palest copal varnish; then let him put a piece of deal on his bench and take a few shavings off it with a carpenter's plane. Let him lay his varnish directly on the wood so planed. It will have a fire and a beauty he will never quite attain to by scraping, sand-papering, and then varnishing the same wood with the same varnish. And this applies to hare-wood as well as deal. The back of the Vuillaume Stradiuarius, which is the finest part, has clearly not been sand-papered in places, so probably not at all. Wherever it is possible, varnish after cold steel, at all events in imitating the Cremonese, and

especially Joseph Guarnerius. These, however, are minor details, which I have only inserted, because I foresee that I may be unable to return to this subject in writing, though I shall be very happy to talk about it at my own place to any one who really cares about the matter. However, it is not every day one can restore a lost art to the world; and I hope that, and my anxiety not to do it by halves, will excuse this prolix article.

CHARLES READE.