

## MYTH BUSTERS!!!!

Introducing! An ongoing column to help dispel the various “myths” that have come to plague today’s wet-plate collodion photography scene.

These myths or untruths or even half truths have often served only to make the process more difficult to impossible, limited, less fun, more expensive, and, in some cases, downright dangerous! They are often furthered along by well meaning forums, some contemporary write-ups, manuals, videos, and even some 19<sup>th</sup> century works on wet-plate collodion photography. Now, on with the myths and may they soon be recognized as just that!

**MYTH:** When problems occur it is usually the Silver Bath’s fault.

**No!**, quite the opposite! It is usually not the fault of the Silver Bath. The silver mining industry must have lobbied hard for this one, for all the perfectly good Silver Baths that have been tossed, as a result. In all my years of doing and teaching the wet-plate process, I have yet to have a Silver Bath up and go on the fritz. Yes, with long and hard use they do gradually weaken and need sunning and replenishing. But, never is it going to produce a fine image one minute and then the next go bonkers. Nor even good ones one day and then funky ones the next. It just does not happen that way with normal use. Only way it would suddenly crash on you is if you did something real foolish like accidentally pour your developer or fixer or beer or what ever into it. Never drink and do wet-plate! Properly mixed up, seasoned, and with normal use, your Silver Bath is going to work fine time after time for a very long time.

Beginners often panic because of the sub-myth that the ph must be very precise, that they add acids and bases back and forth till the bath is totally annihilated. Or, they decide more must be better and add too much Silver Nitrate. That would not destroy the Silver Bath but would cause improper sensitization of the plates placed in it. In other words: a lot of fixing what is not broken!

Usually, where the problem lies, and especially with beginners, is with simple things like: wrong camera exposure times, light leaks or glare in the camera, light leaks in the darkroom or dark box or Silver Nitrate Bath box, a hot over active developing solution, over development of the plate, just plain bad development technique, or improper balance between the salts in the collodion and the silver nitrate concentration in the Silver Bath. This, actually, is just a partial list of all the things one can do to achieve a poor to nil image with the Silver Bath being totally right and doing its proper job.

So, don’t mess with the Silver Bath unless you are absolutely sure the problem could be no and I mean no where’s else! It’s a very expensive chemical to foul up!

**MYTH:** Your freshly mixed up Collodion Solution must be “perfectly clear” before it is ready for use.

**Not exactly so!** Yes, new, properly mixed and seasoned collodion must be set aside for a couple days in order for the inevitable precipitate to settle out, leaving a white cake of material at the bottom of the glass stock bottle. But, if the solution is still abit hazy or cloudy looking, don’t sweat it! You may go ahead and decant off a portion into your

pouring bottle and go to shooting plates. It will work just fine. Eventually, though, it will become perfectly translucent with its characteristic straw yellow to reddish hue.

In recent years, however, there has been practically a cult spring up around "clearing the collodion". They keep a constant vigilance on their bottle of fresh mixed collodion to see if it has "cleared" yet and thus, they think, be ready for use. Some have suggested putting the bottles in very warm water or out on a sunny warm window sill to help speed clearing up via the heat. A few neglect to "burp" the bottle before it builds up such pressure inside to burst it as a result! All wholly unnecessary, not to mention quite dangerous!!

So, get out there and shoot some wet-plate and stop worrying about whether the collodion has "perfectly cleared" or not!

**MYTH:** Temperatures below 40 degrees F cause all sorts of problems. You can't do wet-plate in the snow and cold of winter.

**Phooey!** The fact is you can shoot perfectly fine images in the great outdoors right on through the winter without any problems. But, you must keep your chemicals around 50 degrees to have them function properly. "Things like the developer are going to work best in the mid 50's and above. The Silver Bath and fixer can be down in the 40's, actually, and still be fine to use. You just give the plate a little more time in them. Collodion can be in the 40's and perform as it should but may take a bit longer to set up on the plate. But, most of us that shoot in cold and snowy landscapes have our darkroom or dark box in the warm indoors, so our chemicals are at a nice room temperature. We go out and get the camera set up and focused on the snowman, frozen waterfall, what have you and then go back to the house and prepare the plate and bring it out in the plate holder to the camera, do the exposure and then back to the nice warm darkroom to develop it. That little trip the plate makes out to the camera and back, in even single digit temperatures, has absolutely no deleterious effect on it! And, yes, this could be why Sally has no interest in doing deep winter wet-plate! But, for the rest of us there is no reason other than, maybe, the personal comfort and convenience may not be so inviting when shooting in the winter. Now, Mush! You Huskys! Back to the dark box!

**ADDENDUM:** Probably the most common way some beginners mess up their Silver Bath is they simply put their freshly collodion coated plate into the Silver Bath to sensitize way to soon!

Do that a few times in a row and your bath will be totally polluted with lots of dissolved collodion in it, locking up the silver, making your bath weaker and weaker until it is nearly impotent. Images start to come out on the dark side even with inordinately long exposure times. Plates that have been put in the Silver Bath too soon will yield blotchy looking images that seem to have a leaping flame sort of pattern over them. Also, the pour off end is usually very dark to totally black, where the collodion was the thickest and therefore more fluid and quick to dissolve away.

But, not to panic. If you find that you messed your bath up this way there's a way to save it and bring it back up to snuff. You can sun it, filter it, and bring it back up to strength as described in "The Doers Guide" manual on how to revive a worn out bath. But, best to avoid all that by just giving your freshly collodion coated plate time to skin over and gel up properly before you put it in the bath. This could take only five seconds in a very hot super dry desert setting or possibly twenty seconds in a humid cool setting like down by the seaside in winter. A freshly coated plate will have a wet super glossy look at first, but as it begins to set up and gel and starts to get a duller mat like gloss, you know you are pretty much there. Blot off the drip corner {I just use the palm of my hand} and it's ready to go on the dipper and on into the Silver Bath.

Also, another thing that determines how long it takes for a plate to set up properly before it's ready to go into the Silver Bath is the Ether to Alcohol ratio in the collodion. The more Ether and the less Alcohol, the quicker it's going to dry. The common ratio of Ether to Alcohol in the 19<sup>th</sup> century was 50/50. For summer work they often prescribed a 40/60 ratio. A lot of wet-plate photographers today don't know it, but plain collodion as we buy it is a 75/25 ratio. So, when you mix up your working collodion you have to add a good deal more Alcohol to it than you do Ether to achieve a 50/50 or 40/60 ratio. True, a high Ether content collodion can be made to make fine images. I used a formula like that for years before I discovered the real deal. I made the change and immediately started getting better positives and denser negatives.

Here is an example of an 8x10 Ferrotype I did in August 2010 on a hot day in the high desert country of New Mexico of artists Nicolas Huerta and David Michael Kennedy:

**MYTH:** To make perfectly fine blackened plates in which to make wet-plate Tintypes with, all you have to do is spray paint the plate with any common hardware store or department store grade glossy black canned spray paint. But, you must let it dry thoroughly before use, so it has had time to completely out-gas any solvents that would react with the collodion. Be advised that the blacks from spray painted plates won't be quite as black as an asphaltum based black japan paint that has been baked on in the traditional way.

**Wow!** That was a long one. Sounds wonderfully easy, doesn't it? The only thing true in this prescription for disaster is that the blacks won't be as black with spray paint as compared to real baked on black japan asphaltum based paint, as was used to put a glossy black finish on 19<sup>th</sup> century Ferrotypes tintype plates. Just like the blacks are not as black in the cheap Trophy plaque aluminum plates, everybody seems to be stampeding to. But Oh!, the convenience! But, back to spray painted plates. Some might want their tintypes to be more like traditional Ferrotypes, and so they try spray painting real tinplate or plain mild steel plates. It does not work! and I don't care how long you let the blooming paint "outgas". The collodion will react with substances in the paint which will result in stained, dark, blotchy, and or fogged over images. For those of you who think that would be a cool art thing, well, then go for it baby! But, for those of us who strive for a nice clean image, as much as is possible, it just is not a choice! The only real choice for a wet-plate period correct Tintypes is not spray can painted plates or even black Aluminum Trophy plaque plates, but, real asphaltum formula based black japanned Ferrotypes plates. It is truly worth the extra effort to get it historically correct and get those rich deep warm blacks that cannot be had in any other way. That is except for "Photo Shop". If shooting a wet-plate is only an intermediary step to an image and not the final art piece or historic reenactment object but is only an "image", then, I guess, it doesn't matter how you get there.

**MYTH:** There is no need to use Potassium Cyanide for a fixing agent in wet-plate photography. Ammonium Thiosulfate works equally as well, imparting the same tones, is cheaper and much safer to be around, and is easier to be had.

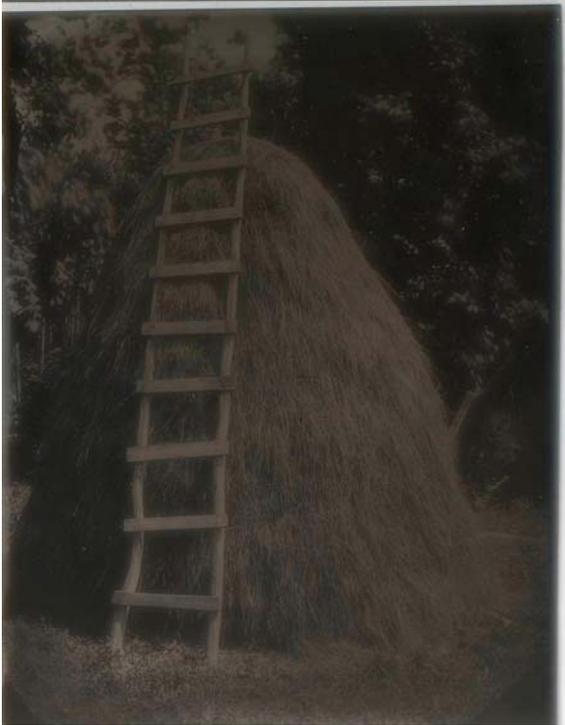
This is something of a myth not to unlike the Medieval Alchemists claims of turning lead into gold. Of course, there was no real basis to such claims, but, I'm sure some were fooled and swore it could be done. So it goes with Ammonium Thiosulfate fixer. Yes, it will fix an image and, yes, it is relatively cheap and benign. That's all well and good, but, what it cannot deliver is the beautiful coffee and cream tones of a positive image that is fixed in Potassium Cyanide solution. Nor is it as fast an acting fixer. Also, Ammonium Thiosulfate fixer, like it's lead grey for tones cousin, Sodium Thiosulfate, requires a much much longer rinsing time or you risk the image darkening down over time, even if it's been varnished. In the field, access to water may be limited. True, Potassium Cyanide is a very poisonous substance and should be treated with the utmost of caution and especially in its concentrated crystalline form. But, once it has been diluted with distilled water to create a 1.2% solution for use, it is much much less dangerous. To do yourself in you'd have to take a couple long gulps of it. If you splash some on your hands, in processing,

don't worry, it is not going to go through your skin and get you! Just rinse yourself off with a little water and you are good to go. Actually, the most dangerous chemical in your wet-plate darkroom is the Silver Nitrate solution. That is 9% solution. If you drink a couple big swigs of that you better make sure your liver donor is standing in the wings at the ER or you're a cooked goose! But, of course, it is highly unlikely, you or anyone, is going to drink any of your darkroom chemicals. The far more likely thing to happen, somebody would splash a few drops or more of Silver Nitrate solution into their eyes. This could result in permanent blindness. This, of course, is why we wear, at the very least, a pair of safety glasses whenever we are around Silver Nitrate powders or solution. Clearly, the bottom line here folks is that all these chemicals need to be treated with wisdom and respect and kept out of the reach of children and the mentally handicapped or disturbed. Potassium Cyanide is such a superior wet-plate fixer, the extra caution involved in using it over Ammonium Thiosulfate or Sodium Thiosulfate, is truly worth it. Not only is it the best for positives and was used almost exclusively for Tintypes and Ambrotypes in the 19<sup>th</sup> century, but it also is a superior negative fixer often used back then as well. This is due to its quick fix and rinse time but more so because the coffee and cream tones translate as greater opacity in the highlights. This made it work that much better for negatives used to print Albumen and Salt prints. Sodium Thiosulfate or Ammonium Thiosulfate fixed plates tend to need intensification far more often in order to get the proper tonal range results. Finally, using Sodium Thiosulfate or Ammonium Thiosulfate fixer, either way, you get just grey tones in the highlights of your positive images. If anything, the Sodium Thiosulfate is the more attractive of the two. It is also the most authentic to the 19<sup>th</sup> century of the two. You virtually never see Ammonium Thiosulfate listed as a fixing agent in the old manuals. Must have been a reason for that, as it existed back then. The one thing the two have in common is that they are both fairly benign, relatively cheap and a lot easier to buy. For that, they may suit beginner wet-platers purposes quite well.

But, for the serious more experienced who as a general rule always strive for the best and brightest image equal to the best of the first wet-plate era, the only choice is Potassium Cyanide fixer. So, wet-platers, don't listen to the fear mongers with their gold colored sunglasses on! None of these latter day alchemists can give you any empirical proof of their glowing claims, as I have done, below, with the non-manipulated straight scans of plates shot one right after the other with all components the same except for the three different fixing solutions. You be the judge. From left to right, the plates go as follows: Potassium Cyanide, Ammonium Thiosulfate, top pair. Sodium Thiosulfate, and Ammonium Thiosulfate, bottom pair.



I was using Ol' Workhorse collodion, which is a 50/50 Ether to Alcohol overall content formula. I waited approximately ten seconds after I poured the plate before I put it in the Silver Bath while working out of my portable field darkbox. So, tuck that in your bonnets you hyper-active speed devils out there, and your Silver Bath will be much the healthier for it!



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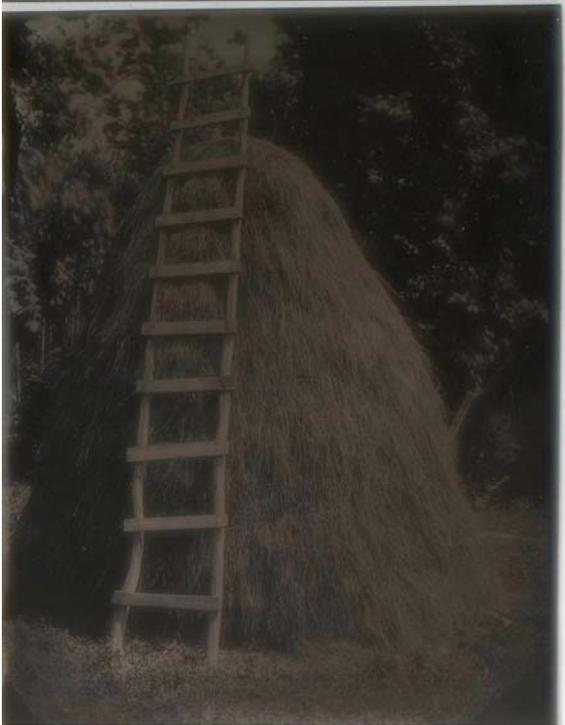
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**ADDENDUM TO FIXER CHOICES:** Here is yet another choice for a fixer for those who don't want to mess with Cyanide. It is simply off the shelf Ilford Rapid Fixer. Acclaimed collodion artist Kerik Kouklis seems to be the one who introduced the wet-plate world to this adaptation of an old black and white film and paper fixer stand-by for many art photographers. My tests seem to indicate that of the non-cyanide fixers, this is the best choice. At its standard dilution, it fixes almost as fast as Cyanide and gives a slightly warmer grey tone than any other non-cyanide fixer. But still not the beautiful coffee and cream tones Potassium Cyanide so ably gives. Ilford Rapid Fixer is of course way easier to buy and find than Cyanide which is a huge plus for the beginner wet-plate photographer. But in the long run, it's going to be a lot more expensive than Cyanide. As just a little portion of Potassium Cyanide goes a really, really long way. Also, only Cyanide fixer can be useful those times you may need to reduce an image slightly and up the contrast a bit by simply leaving it in the fixing solution longer. Ilford or any of the other non-cyanide fixers are of no use that way. And, of course, Ilford, just like the other non-cyanides, will require a lot longer plate rinsing time. But, as the old saying goes, "to each their own," said the old geezer who kissed the cow. Here's the comparison. Choose your cow:

**Ilford Rapid Fixer**



**Potassium Cyanide Fixer**



## **Addendum: Aluminotype verses Ferrotypes**

Yes, all do agree that the blacks are slightly deeper and warmer in a true black asphalt japanned Ferrotypes Tintype plate and the blacks are greyer and colder in Black Aluminum Trophy Plaque plates (aka aluminotype or alumitype). The difference isn't huge. Just like the difference isn't huge between a cheap resin coated black and white photographic paper print as compared to an expensive fiber based photographic black and white paper print. Most would agree that the resin coated cheap paper is great for a 101 basic black and white photography class and non-serious work, but clearly wouldn't do when it comes to fine art photographic prints. That little bit seems to make a huge difference with virtually all art photographers. So, it should go with wet-plate collodion Tintypes. But, quality at the moment seems to be trumped by convenience and cost. You have to japan your own tin if you want to shoot real Ferrotypes. Check the "Doer's Guide to Wet-Plate Collodion Photography" manual with DVDs for the most consistent and best way to do that. Follow the formulas and instructions to the letter and you can't go wrong. There is a substantial investment involved in getting set up for this. But, in the long run it may prove cheaper than just using the Black Aluminum. The reason for that is the Black Aluminum plates are a one-time use deal. You can't rub a dud image off and reuse it without risking many scratches, smudges, and other defects showing up in the next image. The only way to recycle the plate for image making is to bake a coat of asphalt based japan on it. Obviously if you can do that you'd probably be making real Ferrotypes plates to use for your finer work, as well, which can be recycled the same way.

Ah! But, you say I'd rather be shooting plates than slaving in front of a japanning oven. Well, you and everyone else these days! There are probably close to a thousand active wet-plate photographers and that number is steadily expanding. Nearly all are shooting on nothing but Black Aluminum Trophy Plaque plates. On the other hand there are less than a dozen wet-plate artists in the world who are shooting on real Ferrotypes plates. All this because Aluminotype "wet-plate images" are so incredibly easy to make. They are being churned out by the bushel baskets full! As a result a huge Aluminotype Bubble is being formed and like all bubbles it will eventually burst. That's when, once again, just like in the 19<sup>th</sup> century, tintypes will be a dime a dozen. But, such will not be the case for real Ferrotypes Tintypes. Those who persist in making them will still be in command of a truly unique and obscure historic photographic process that will maintain its value far into the future. Something on a par with contemporary Mercury developed Daguerreotypes which are an expensive and a major challenge to make

and thus only a few determined souls will probably ever be making them to any extent.

Yes, but, some would insist that making real Ferrotypes Tintypes is irresponsible, as they could easily be mistaken for original 19<sup>th</sup> century specimens and possibly sold by some felon as an original. This is true. But, so could well made reproductions of anything out there. I know a gentleman who makes beautiful totally cast iron reproduction 19<sup>th</sup> century head rest posing stands. They are superb and he is very proud of his product, as he should be. No one would ever dare suggest to him that he should make the upper parts of his stand out of cast aluminum so that the stand could never be mistaken for an original. Like wise anyone making authentic Ferrotypes Tintypes instead of Aluminotypes should be just as proud and should never have to apologize to anyone for anything. As a matter of fact, it should be the other around!

So, here's the bottom line to this controversial issue: If you want to run down the broad and easy path along with the herd over the eventual cliff, just go right on making nothing but Aluminotypes. But, if you want to be special, and don't we all, you will make real deal Ferrotypes Tintypes. To a lesser extent, you will make real glass ambrotypes. And if you really want to be extra special you will make fine albumen prints or other handmade historic processes prints from contact printing on fine wet-plate negatives. And yes, those could be confused for originals. Ain't it Grand!

**MYTH:** Using a Kerosene Lamp as a heat source in which to dry plates over or heat them up during the plate varnishing procedure is both unauthentic and “dirty”. The proper and authentic appliance to use is a Spirit Lamp.

This is truly a whacky one that requires a lot of ignorance and self delusion to buy into. But, still many do. True, some old manuals speak solely of the Spirit Lamp, which is also known as an Alcohol Burner or Alcohol Lamp, as the heat source. Towler’s 1864 “Silver Sunbeam” is one and it was regarded as the most complete manual of its day. But, it also warns that you can all too easily set a freshly varnished plate on fire if you get it too close to the hard to see blue flame. Set a plate on fire, even for an instant, and the image surface will be badly defaced. There’s no fix after that. And you will eventually set a plate on fire no matter how careful you might think you are. Usually, it’s the best one of the day! Also, a Spirit Lamp’s rather pin point flame can crack a glass plate if you get it too close. Again, it will probably be your most beautiful Ambrotype of the day. On into the 19<sup>th</sup> century wet-plate era, one can find many appliances offered to take the place of the wicked little “Spirit Lamp”: Sheet Iron racks with gas jet burner heat sources, big ones you set on a room heater stove, or small light tin ones heated by a “Coal Oil Lamp”. What’s a “Coal Oil Lamp”, you might ask? That’s just 19<sup>th</sup> century lingo for an ordinary Kerosene Lamp. This seems to trip some modern narrow minds up who then believe a Kerosene Lamp must be some sort of 20<sup>th</sup> century invention because they never see it mentioned in any 19<sup>th</sup> century literature. The fact is Coal Oil, Oil Lamp, and Kerosene Lamp are all the same thing! Trask’s 1870’s manual, “The Practical Ferrotypier”, speaks of using a Coal Oil Lamp for a heat source. Well then, some might say, they never used them during the Civil War! I say, why not, as they had them by that time. A standard size Kerosene Lamp with a three quarters inch wide wick gives out a nice even broad heat from its glass chimney that is ideal for drying and varnishing any plate, be it metal or glass. It is virtually impossible to set a plate on fire with it! I never have in the decades I’ve used one nor have any of my hundreds of students set a plate on fire with one. It is also a very lovely and relaxing light to work by. One thing it is definitely not is “dirty”. If you keep it properly maintained and the flame not turned up too high it will burn very cleanly without a trace of smoke. You can buy your Kerosene Lamp or, as they are more often labeled, “Oil Lamp”, at most home supply stores or even places like the big box discount department stores or several mail order sources. Lehman’s Hardware has a huge line of them. Always, the same place will have bottles of nice colored and scented “Lamp Oil” for sale to, but, plain Kerosene works just as well and is a lot cheaper. Check your local gas station to see if they pump it. Oh, yeah, one more thing, for 8 by 10 or bigger size plates you will need two or more lamps side by side to give the flow of heat needed to do the job well.

**OTHER HEAT SOURCE OPTIONS:** Some devoted and inspired “Spirit Lamp” users have side stepped some of the fire hazard issues pretty much by putting the Spirit Lamp in the bottom of a 6 inch metal tube with holes or slits near its bottom to allow a good flow of air to the flame. With one of these set-ups, you cannot get too close to the flame and set any plates on fire and it also helps to gather the heat and send it out in a broader more uniform way. So, no risk of cracking a glass plate, either. The only drawback from this sort of set-up is that inevitably you or someone will grab the tube not realizing it can get scorching hot

and they totally fry the ends of their fingers! If you go the tube route be sure to make a nice wide base attached to it, as they tip over or get knocked over way too easy otherwise. Now, if you don't care about the old time look at all and are not into flames, you can use a Coleman Catalytic propane canister heater to good effect as a heat source to dry and varnish your plates over. And, if you really, really don't give a rat's ass about being "authentic" or even sounding authentic, you can use a hand held "electric hair blow dryer" to heat your plates with. No dangerous flame there, either, but I think I heard it from someone who heard it from someone who heard it from someone that it was "dirty"?

## **Addendum: The New Flameless Hot Water Heat Source for drying and varnishing plates works great!**

Yes, yet another break through innovation from Camp Tintype that is sure to sweep the wet-plate world. Well, it deserves to, anyway. It is simply a flat hot water tank. Mine is 14"x16"x2 ½" and is made out of thin steel plate welded together. It could just as easily be made out of aluminum plates welded together or tin sheets soldered together and any size you want to make it. The tin soldered together version certainly could have been around in the 19<sup>th</sup> century and for that, is as good as "authentic". To use it, you simply fill it with very hot to boiling hot water. My hot water comes from my old tin coffee pot hung over a campfire or from off my old wood fired cook stove. However, I have been told some people have steaming hot water on tap in their labs and at home. My plate heater unit stays hot and useful for up to two hours. That's plenty of time to dry and varnish a lot of plates. It also happens to be a much faster procedure than any other method aside from the equally safe and simple one of just laying your plates out in the hot summer sun on a hot deck or black gum blanket to heat up and dry varnished plates. By this method, you don't have to dally around waving your plates over a heat source and especially over the little pencil size flame of the ultra fire hazardous alcohol "Spirit Lamp" that has a nasty habit of setting plates and sometimes people on fire.

I will take the opportunity to say here, it is simply mind boggling that some still teach the "Spirit Lamp" as the "correct" heat source when varnishing or even as one of several options. They seem to always get a big laugh when they describe how, while waving a freshly varnished plate a little too close to the hard-to-see blue flame, the plate can suddenly go Woof! into flames. I find a flaming plate in my face with open bottles of highly flammable varnish only inches away to be not cute and humorous at all! Some minds and manuals will never be changed, this we know.

So, onward to how I use my sweet little hot water heater unit. I lay one or more plates on its surface, image side up, to dry if they have not already dried in a plate rack. It only takes a minute or so for a dry plate to heat up to varnishing temperature. You then pick the plate up and varnish it in the usual way. Draining the excess varnish off, blot the drip edge carefully and then lay the plate back down on the top of the hot water tank to dry. I then go onto the next plate and do the same thing and on and on you go, as you have room on the tank. You can leave the varnished plates on it as long as you want. This is a very handy way to get the varnished surface of the plate bone dry. The old way of waving a plate over a Spirit Lamp or any heat source for a minute or so just isn't long enough to thoroughly dry the varnish. That's why, in that case, it is recommended to then leave the plates in a drying rack overnight, at the very least, to finish drying and curing out. That's not really necessary with the new hot water tank method. Like I said before, the hot water heater tank makes things go a lot faster and safer too.

Ah, but some might say getting such a contraption together is way over my head and perhaps budget, if you had a shop make one for you. Well, not so fast! You might have a unit lying around already. I first started out with an empty gallon size rectangular tin can that once had Denatured Alcohol in it. Then I doubled up with a can the same size that once had Mineral Spirits in it. Then I tripled up with a third in the array that once had Coleman Camp Stove Fuel in it. So, look around, you probably have cans kicking about like these or similar metal vessels. Here is my home built unit with a 5x7 plate on it. Also, note the cans I used to use for hot water heaters in the background:



## **Myth of the “HOT FINGERTIPS”**

Hello, and welcome to the hot fingertips “Twilight Zone” of wet-plate photography! Here’s how it goes: When pouring collodion on your plate via the tried and true “waiter tray” style method, whereby the plate is supported by your finger tips from beneath, the heat of your fingertips will magically go through the glass (supposedly only happens with glass plates) causing the collodion film on the plate to quickly dry down at those points where your fingers had been on the back and, thus, become less able to be sensitized when the plate is placed in the Silver Bath and in the end gives you five dark spots on the final image. Wowy Zowy! That sounds so scientific and reasonable, doesn’t it? But, does it really happen? HECK NO! In my nearly thirty years of pouring plates, from the little ninth plate size to 20 x 24 Mammoths, has it ever happened to me, or to any of my many, many apprentices, or hundreds of students? Nope! Nor have any reported back to me that such a thing has ever happened to them.

But, wait! Believe It or Not, there is a flip flop version of the Hot Fingertips boogie-man also stalking the modern day wet-plate world, these days. In this version you don’t get dark spots but rather white spots! Again, only happens with glass plates. One You-Tube version of how to pour a plate says only when it’s below 50 degrees F. Another says at any temperature. But, supposedly it’s not a problem ever when shooting Tintypes, the real Ferrotypes kind or the not so real cheap aluminum kind. Just glass and only glass. They say you must use the awkward “cantilever” plate pouring style when using glass to avoid this major, major problem. The reason they say that you get white spots from the heat of your fingertips radiating through the glass is that your fingertip heat is activating the silver in the collodion, making it hyper active at these points. As complicated as this is getting, I hope that you, dear reader, are still with me.

Now for the debunking part: How is it an eighth inch thick piece of glass can conduct heat from your tips through to the freshly poured and cooling (via rapid evaporation of the ether and alcohol in it) collodion coated plate far more readily than a much thinner, way more heat conductive tin or aluminum plate defies all the basic laws of thermodynamics! If you have ever varnished a wet-plate image by the standard traditional method, you know already that it takes much longer for glass to heat up than a metal plate. Yep, thermodynamics seems to work no problem there!

And then there’s the problem of how can the Silver in the collodion get over-activated when there’s not an atom of Silver in it or on it till it goes into the Silver Bath? And even then sensitization isn’t at all instant but takes a full three minutes of soaking. If there was any fingertip heat lingering in the glass, the cool bath would almost instantly suck it out before it could do any harm.

Again, in all my years of doing wet-plate, I have never had any white spot problems due to fingertip heat using the “waiter-tray” style of pouring plates, glass or tin. Same goes for any of my students or apprentices.

BELIEVE IT OR NOT, the purveyors of wet-plate fear and paranoia at one time preached that the heat of your fingertips using the “waiter-tray” method while varnishing your glass negs or ambrotypes (not tintypes), would cause dull flat “dead spots” in the varnished image (see “The Collodion Journal” #17, page 6, fourth paragraph). This proved just too big a flounder for anyone to choke down for very long and it was soon swept under the rug and forgotten about. May all the Hot Fingertip rubbish, dark spot, white spot, blue spot, green spot, whatever, meet the same fate!

## **Myth:** Glass to glass is the most perfect seal known to mortal man!

Sounds downright glorious, don't it? That's what the great zomba's of wet-plate will spout out from time to time as they lift their favorite glass stoppered chemical bottle high into the air for all to admire. Well, I really, really wish this perfect seal stuff was true, because glass stoppered chemical bottles are indeed quite beautiful and exotic looking. But, unfortunately, my experience has shown they don't give a perfect seal. They may even give you a headache or two!

There was a time I tried to put as many of my wet-plate fluid chemicals in glass stoppered bottles as I could. After awhile I discovered that the only time I got a perfect seal was when I so stupidly put my sandarac varnish in one. I ended up breaking the glass thumb piece off in a vain effort to try to get the thoroughly fused in glass stopper out. Then there was the collodion pouring bottle and its glass stopper would get stuck in it to from time to time or else it would not be well sealed enough and I'd lose volume to evaporation of the ether and alcohol out of it and the collodion would then get too thick.

So, what to use instead? I find a natural cork stoppered clear glass bottle for a collodion pouring bottle to do the best all round job. But, choose one that is super clean inside and has a nice wide bottom on it. Ones that are narrow-bottomed or flask-shaped are too prone to falling over. For your bulk supply and for long term storage of collodion, you should use a glass bottle with a good tight fitting screw cap. Never put collodion or ether in a plastic container, as it will attack the plastic. For your silver nitrate solution, fixer, and developer, plastic is the best choice for transport and storage. For varnish I like to use glass quart jars, with their standard screw caps, for mixing and bulk storage. For a varnish pouring bottle I like to use a small wide based antique glass bottle with a black neoprene stopper. Most all lab ware suppliers have these stoppers in an array of sizes.

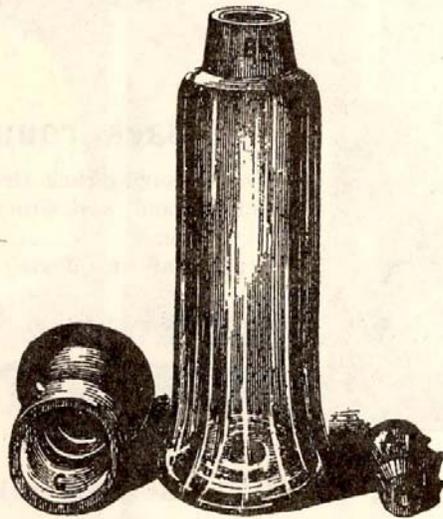
So, this is my take on glass stoppered bottles for wet-plate use. You may or may not agree with me. If you would like to prove the perfect seal bit to yourself and all, here's how you can do it: Fill your most prized glass stoppered bottle half full with cheap Rubbing Alcohol (also, known as Isopropyl Alcohol). Mark the side with a felt tip pen with a line corresponding to the fluid level. Put the bottle on a sunny window sill for a couple weeks. If you have a perfect seal there should be no change in the alcohol level at the end of that time. If it's gone down, well, obviously you didn't have a perfect seal and the same thing would have happened if it had had collodion or ether in it.

Historical Note: They did have special glass stoppered glass collodion pouring bottles in the 19<sup>th</sup> century wet-plate era. They were often referred to as "comet less" pouring bottles. There is one illustrated and described on page 37 of the 1870's E. & H.T. Anthony & Co. catalog that is included with the "Doer's Guide" how could you live without one wet-plate manual. You will notice it has two stoppers. The inner is one is in fact a glass stoppered glass to glass one. But, the outer one is a glass to cork seal. It, in fact, keeps the inner glass stoppered seal from drying out and thus from getting stuck or producing dried flecks and chunks of collodion from mixing in with the collodion flow onto your plate and causing spots which sometimes have comet like tails on them when the plate is developed. That's why these special bottles were called "comet less". Now, to find one of these original bottles would be on the order of

finding an original iron head rest stand for ten bucks at your local junk shop. There is no modern made equivalent, either. But, not to worry, your wet-plate life can go on nicely as described before with other kinds of bottles other than glass stoppered fancy pants bottles.

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### Anthony's Improved Collodion Vial.



The bottle is strong. The cap is very strong, and can be replaced, if broken, at a nominal cost; any piece of one vial will fit any other vial. The outside of the neck is made of cork, and therefore fits tightly, and is not in danger of breakage.

Price, 6 oz. .... \$1.00  
" 8 " ..... 1.25

**MYTH: The “Helper Tray” used as an effective plate developing aid is an unauthentic invention that John Coffey dreamed up. It is clearly not “cool” and not anything any self-respecting “Collodion Artist” would ever be caught using. Only limp wrists, little girls, and Frederick Scott Archer would use one.**

Whoa, Nelley! Rewind!! And Frederick Scott Archer???. Well, that part and the part about it being a very effective developing aid is the truth. Yes, the inventor of the wet-plate collodion process used to good effect, for all intents and purposes, a 19<sup>th</sup> century materials made “Helper Tray”. Clearly, he must have had a scope that peered into the future. In the first published description of the wet-plate collodion process in the English scientific journal, “The Chemist”, he wrote the following in the last paragraph:

*“I have found it convenient to have a trough made of gutta percha, the two sides and bottom of which are about 1/8 inch high and just large enough to hold the glass plate. With this trough, the mixed solution can be poured rapidly over the plate, without fear of any being thrown over the edges.”*

Don't get me wrong folks on this exposé of the Helper Tray's long and glorious history. I think the very common, then and now, In-Hand method of developing a plate is just swell. Virtually all my workshop students by the end of the class are doing plates 5x7 and smaller beautifully by that method. It's a smooth transition for them to go from Helper Tray to In-Hand. Think training wheels on your first little bike. All these decades later, I myself still use a Helper Tray sometimes for 8x10 and always for 11x14 and 20x24. If nothing else, it is a lot less messy developing such large plates in a cramped field dark box. Also, under those conditions, the Helper Tray is used as the first rinse tray to quickly stop development at just the right point which is critical for the best positive images. So, at least for large plates our Plexi Glass made Helper Trays are absolute essentials here at “CampTintype”. The hoottee tootees can look down their noses at us all they want.

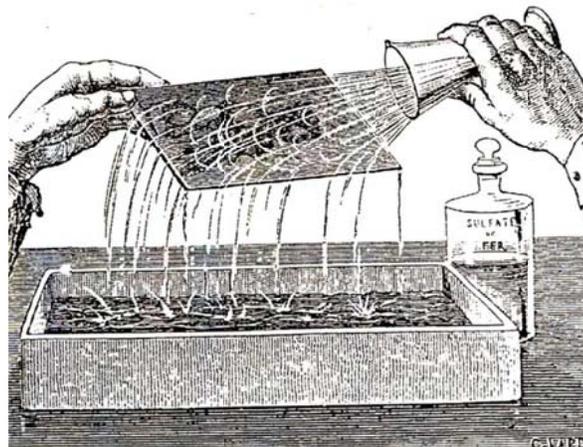
Us an' Fred .



**Myth:** If it came out of an old 19<sup>th</sup> century manual or journal it is always right.

Wrong! Only some of the time is the information in those old manuals and papers right on the money. Some of the time it may be sorta right or half right, and then there's times it's pure rubbish. You can easily be bamboozled by formulas, text or old woodcut illustrations. In my many years of researching wet-plate photography and trying a whole slew of collodion formulas, I found many to be a total waste of chemistry and time. Same goes for some developer formulas. Then there is stuff in the text of old manuals and write ups that did not prove out and should not to be taken literally. The "Yellow Light" safelight is one case in point. It appeared numerous places in the old manuals and photography journals of the day. At least one source suggested making a field darkroom tent out of yellow calico fabric. Oh! how pretty that would be, but fatal to your images. They would be totally fogged. This would also be true if you put yellow fabric over a window or used yellow stained glass in your darkroom window or dark box window. Experienced wet-platers all know today that yellow light will fog their plates and so they use red, reddish orange, or dark amber light to work under during those steps in the process that require safelight conditions. Be hanged old manuals!

Then there is this woodcut, called Developing the Plate, often seen in the old literature and even in a few modern write ups.



If you try to imitate this picture with your developer pour, you will get weak and uneven development, big time. Where the developer first slams onto the plate you will end up with a black hole on the end of the plate with the rest of the image being fairly faint and uneven in overall density. This happens because you have driven off much of the necessary silver salts on the plate's surface needed to build up the image properly. When you do in-hand-development, as this cut is trying so poorly to represent, the idea

is to keep as much developer on the surface of the plate and as little as possible from running over the edges. Granted, a heap of developer being dashed upon a plate in one big mighty splash looks really exciting and obviously is not a hard technique to master. But it simply isn't the right way to do it. The correct way to do it is much more subdued, gentle, and far more even and thorough. That too is in the old manuals. Sorting out the fact from fiction has taken me a lot of years.

Now, you would think a U.S. Patent would be as correct as it gets, wouldn't you? Well, not the one Hamilton Smith took out on the Melainotype {latter known as a Ferrotype or Tintype} in 1856! It, like a lot of patents that had secret proprietary information in them, was doctored up with false ingredients in order to trip up anyone who would try to take that information and produce the same product without paying any royalties to the guy who invented it and held the patent. I know first hand about this, having long ago mixed up a batch of Black Japan using Hamilton Smith's formula from the patent description. Yes, it produced a fine glossy black finish, but it totally reacted with the collodion yielding completely fogged images. Only after playing some hunches I gleaned from several old manuals did I finally get the basis together for a working Black Japan. It's in my manual now. There's no patent on it. You just must buy my manual. Heck, it took me many years to perfect it! But, like I said at the beginning of this piece, there is gold in them thar old archives. You just have to bust a lot of rocks and go through a heap of tailings for it. At the least, they can be fun to read and especially after you have done the wet-plate process for awhile and are into a comfortable working routine. A routine that you of course learned from the "Doers Guide" and possibly from a workshop or tutorial at "Camp Tintype"!

**MYTH: John Coffey is always right, knows everything worth knowing about wet-plate photography and never makes mistakes.**

I hope you are laughing out loud with that one! After nearly three decades of doing wet-plate collodion photography and making lots and lots of mistakes along the way, I still count myself as being on the learning curve. Yes, this old dog can always learn some new tricks and sometimes needs correction. So, please, please, if you see anything wrong with what I have written about the wet-plate process, here or anywhere, drop me a line and let me know about it. If something seems ass backwards, well, it just might be and I want to know about it so I can fix it. I have no pride about this. I just want to know and teach the best possible ways to do wet-plate. I am also interested in common sense safety. So, if you see something in my writings or DVDs that seem particularly unsafe, I want to know about that too.

Unfortunately, some of my contemporaries aren't quite so diligent this way. One example which I have spoken up about, to no avail, that is absolutely, slap yourself in the forehead, unbelievable, is a certain ambrotype image that was made by a very well known team of wet-plate artists/teachers. It has proven to be a very popular and captivating image that has appeared in one of the better known alternative photo process manual's wet-plate section and has also been incorporated into the logo for an up coming big budget documentary film about the heavy hitters in the alt photography art scene. This image shows a glass plate, held by the corner, about to be poured with collodion with a fully lit Spirit Lamp only a couple inches underneath it! The caption under the picture reads: the feeling one gets just before pouring collodion on a plate. Like I said before, totally unbelievable! Any of us who have done wet-plate for very long know that the caption should more accurately read: the feeling one gets just before they pour the collodion on their plate and get torched. Bye! Bye! Sucker! And like I said, also before, my pleas to the author of the particular said manual to take note of this and to at the very least cut it from any future printings have gone unanswered for over half a year. The producer of the movie has been recently notified. I sincerely hope she sees the wisdom of replacing the image with something a lot more honest and safer looking. At the very least this image is a very dark and disturbing practical joke and at its worst the prelude to some hapless beginner severely burning themselves, their house or school down. Yet, the alt process manual does not keep it a secret elsewhere in its pages that collodion is highly flammable and should be kept well away from any sparks or flames. We can only hope students will read that warning and take the prominently featured picture and caption as ever so much cow excrement not to be emulated. Perhaps the medicine showman/collodion artist team that made the outrageous image was only going for a much more visually dramatic effect when they

produced it than the ordinary routine, not so flashy actual act of flowing collodion on a plate. Very exciting indeed! But then, where was the disclaimer: children please do not try this trick at home. Personally, I would be mortified to have such an incredibly dangerous and misleading image show up in anything I produced no matter how flamboyant, mysterious, and lucrative it might be.

I will close by saying that this is not a case of petty jealousy or me trying to build myself up by kicking other people's work down. But rather it's a case of wet-plate photography itself taking a hit should somebody torch themselves pouring collodion on a plate over a lit spirit lamp. Some people like to make out how dangerous it is enough already without that added to the record! Sorry, I'm just not going to apologize for being a voice in the wilderness willing to speak out on such things and the heck with nice-nice and kiss-kiss. Maybe I'll save somebody's face, literally.