The Printers’ Sheet of Miscellaneous Trade Receipts

COMPOSITION ROLLERS:
To 4 lbs. of glue add 6 lbs. of treacle and about half a pound of Paris white, which will make the composition of a superior quality to any other proportion. This is sufficient for two demy rollers. Some makers use only glue and treacle, while others add a small quantity of isinglass or a few drops of sweet oil. In the winter time 1 lb. more of treacle may be added to the above. 12 lbs. of treacle to 8 lbs. of the best glue is sufficient to make two machine rollers. Directions for use- Break the glue into small pieces and lay it soaking in cold water for seven or eight hours, then put it into a vessel resembling a carpenter’s gluepot, with water in the inner receptacle, and after it has gradually dissolved over the fire add the treacle, and other ingredients if required. When it has been over the fire a sufficient time (two hours after boiling bubbles are seen on top) take the scum off, and pour the remainder into the mould, which should previously be well greased to prevent the composition adhering to the sides. About four or five hours after, when the composition is cold and set, draw or take out your rollers, and cut the ends off with a piece of twine wound tightly round. They should then be hung up in a dry place where there is a good draught. If common ink can be worked upon them for a time it is preferable.

RE-MELTING OLD ROLLERS:
Old composition may be re-melted if a little treacle is added; in this case the composition must be washed very clean and then cut up into small pieces and laid soaking in cold water about two hours. Directions as above.

TO NEW FACE AN OLDER ROLLER:
The roller must be well washed with turpentine, and before a fierce fire, held at a distance, keep the roller continually revolving till the face is all evenly melted. The roller must then be taken from the fire and kept revolving till the face of it becomes set, if not it will run itself very uneven and consequently useless.

TO REMOVE DRY INK FROM THE FACE OF A ROLLER:
Slightly warm the face before the fire, and put a little oil upon it while warming; wipe it off again, and wash the face well with turpentine.

GERMAN PRESERVATIVE FOR ROLLERS:
Corrosive sublimate, 1 drachm; fine table salt, 2 ozs; put together in half a gallon of soft water – let stand twenty-four hours. After being shaken is ready for use. When rollers are clean washed with lye, sponge them with the above twice a week.

PRINTING INKS:
Black- 9 ozs. of balsam, capivi, 3 ozs. of lamp-black, 1 oz. of Prussian blue, 3 ozs. of Indian red, and 3 ozs. of dried turpentine soap. This will make rather over 1 lb. of ink.

Blue INK – 2 ozs. of Antwerp blue, ¼ oz. Prussian blue, and 3 ozs. of white lead.

Red INK – 2 ozs. of the best mineral and 1 drachm of vermilion, mix them well together with carriage varnish.

Green INK – 2 ozs. of chrome green, and 1 oz. of Antwerp mineral.

Brown INK – 2 ozs. of burnt umber, ¼ oz. of rose-pink, and 1 drachm of vermilion. The above ingredients should be well mixed and ground on a slab to an impalpable firmness.

INDELIBLE WRITING INK:
Make a saturated solution of indigo and madder in boiling water, and in such proportions as to give a purple tint; add to it one-sixth to one-eighth of its weight of sulphuric acid, according to the thickness and strength of the paper to be used. This makes an ink which flows freely from the pen, and when writing which has been executed with it is exposed to a considerable but gradual heat from the fire, it becomes completely black – the letters being burnt in and charred by the action of the sulphuric acid. If the acid has not been used in sufficient quantity to destroy the texture of the paper and reduce it to a state of tinder, the colour may be discharged by the oxy-muriatic and oxalic acids and their compounds, though not without great difficulty. When the full proportion of the acid has been employed, a little crumpling of the paper reduces the carbonaceous matter of the letters to powder; but by putting a black ground behind them they may be preserved, and thus a species of indelible writing ink is procured, for the letters are in a manner shaped out of the paper.

CLEANING WOOD BLOCKS:
The cleaning of metal types and wood blocks is a matter of great importance, not only as regards good printing, but especially as respects the preservation of the blocks. M. Leblanc Hardel, a printer of Caen, complained to a chemist of the ill effects of turpentine, and that gentleman recommended the use of an essence of petroleum. The advice was followed, and after eighteen months’ experience, the report is, that the petroleum, volatilizing rapidly, does not gum on the type, that it does not injure blocks, renders the face of the wood smooth, and consequently increases the fineness of the work produced. The cost of the petroleum is less than half of turpentine, and the rapidity with which it dries allows the forms to be washed without removing them from the press or machine.

CHEAP SUBSTITUTES FOR PRINTER’S LYE:
Strong powdered ammonia, 1 oz.; and Scotch washing soda bruised, 1 lb.; put together in 1 gallon of rain water, and when stirred well together is ready for use. Another – Boil 3 gallons of water in a copper, throw in while boiling half a pound of unslacked lime and 2 lbs. of common soda, stir well for fifteen minutes. Let it settle till cold, when it must be taken out without disturbing the settlement, which is then fit for use. It should always be kept covered. After using these forme-washes, the type requires a thorough good rinsing with water to prevent it from corroding.

COMPOUND INK COLOURS:
LIQUID GLUE:
To 1 oz. of borax in a pint of boiling water add 2 ozs. of shellac, and boil till the shellac is dissolved. Another – Dissolve 8 ozs. of the best glue in half a pint of water; that being done add slowly, and keep stirring, 2 ½ ozs. of strong aqua-fortis. Keep well corked ready for use. Another – A useful glue for fastening papers together only by being wetted by the tongue is made as follows: Dissolve 1 lb. of glue or gelatine in water, add half a pound of brown sugar, and boil them together. Make into caked by pouring into shapes. It becomes solid when cold.

ISINGLASS GLUE:
Dissolve isinglass in water and strain through coarse linen, then add a little spirits of wine. Evaporate it to such a consistency that when cold it will be dry and hard. This will hold stronger than common glue and is much preferred.

FRENCH GOLD PRINTING:
French copal varnish, 1 oz.; mastic varnish, quarter of an oz.; mix together and add twenty drops to the black ink table, and distribute; take an impression and apply with wool, gold leaf, Dutch metal, or bronze. Apply the bronze with cotton wool and rub hard over the black ink. After each fifty printed wipe off the superfluous gold from the type with a silk handkerchief.

STRONG PASTE:
Put as much powdered resin as will cover a farthing to two large spoonfuls of flour. Mix it with strong beer, and boil it about twenty minutes. Another – When only flour and water are used throw in a piece of alum about the size of a marble. To prevent flour-paste from mould, put in 15 grains of corrosive sublimate, and well mix it with every half-pint made. This is poison, and should be kept covered. Another – A white paste, adhesive to all surfaces, is said to be made as follows: A solution of 2 ½ ozs. of gum arabic in two quarts of warm water, is thickened to a paste with wheat flour; to this is added a solution of alum and sugar of lead, 720 grams each in water. The mixture is heated and stirred about to boil, and is then cooled. It may be thinned, if necessary, with gum solution.

GUM FOR LABELS:
Put one quart of warm water to each pound of gum arabic, make it dissolve by stirring. A little glycerine and honey may be added, but in that case use a little more water.

STEREOTYPING SMALL BLOCKS OR FORMS:
Put a quantity of plaster of Paris (gypsum) into an earthern vessel, to which, while quickly stirring, apply water, and instantly pour it out into the mould, where it will set
and become hard very quickly. The type or block should be first rubbed over with an oily composition and the mould of clay or wood surrounding the form properly fixed so that the plaster cannot escape while setting and being poured out. In order that the seriffs be brought out to perfection sufficient antimony should be used with the metal for casting. The mould and type being ready pour the gypsum gently over the face; when set, remove with care, and bake the mould in an oven, but must not be allowed to warp. A kind of papier maché is used in large establishments. Electrotyping is done with wax.

IMPRESSIONS FROM PRINTS:
First soak the print in a solution of potash and then with one of tartaric acid. This produces a diffusion of crystals in bi-tartrate of potash through the texture of the imprinted part of the paper. As this salt repels oil the ink roller may now be passed over the surface without transferring any of its contents to the paper, except in those parts to which the ink had been originally applied. The ink of the print prevents the saline matter from penetration, and the ink adheres where there is no saline matter.

LITHOGRAPHIC INK:
Dried soap, 1 oz.; melt and add shellac, 5 ozs.; then common soda, 1 oz.; mastic, 1 oz.; and lastly, lamp-black, 3 ozs. Pour into moulds when completely melted and stir well together.

HOW TO CLEAN GLAZED BOARDS:
When the boards are much soiled with ink take a clean dry duster and rub them well on both sides till a polish is put upon them; when they are extra dirty a little turpentine may be applied on a piece of flannel before rubbing with a duster. Coarse ream wrappers, rolled up in a ball, may be also used as rubbers for the above purpose. Some printers only screw the boards down with a sheet of paper between each.

RESIN SIZE:
A correspondent of the “Paper Trade Review” says: -“To about fifty gallons of cold water I add 56 lbs of soda ash, 52 per cent, when all is dissolved; I then add and stir in well 2 cwt. 2 qrs. of resin, broken small; the boiling by steam is then continued till all is in a thin gummy state, and all lumps are dissolved; add one quart of neat’s foot oil; then dilute to a desired consistency, and add it to stuff while being beaten in the engine, about twenty minutes afterwards put in 8 lbs. of alum, either in solution or dry. This resin size costs me 15s. per ton of paper.”

FIREPROOF PAPER:
Dip apper into strong alum water, and it will resist the action of fire. Another – A solution of half a lb. of tungstate of soda to one gallon of water. Brown wrapping paper saturated with this solution will render the paper inflammable.

TO TAKE GREASE FROM PAPER:
Gently warm the parts containing the grease, and apply blotting paper so as to extract as much as possible. Boil some clear essential oil of turpentine and apply it to the warm
paper with a soft clean brush. A little rectified spirits of wine should be put over afterwards.

TO CLEAN PRINTS:
“Immerse the print for an hour or so in a lye made by adding to the strong muriatic acid its own weight in water, and to three parts of this mixture one of red oxide or manganese. A print, if not properly cleaned, may remain in this liquid twenty-four hours without harm. Indian-ink stains should in the first instance be assisted out with hot water; pencil marks taken out with India-rubber so carefully as not to injure the engraving. If the print has been mounted, the paste on the back should be thoroughly removed with warm water. The saline crystals left by the solution may be removed by repeated rinsings with warm water.” – Art Union

INK FOR MARKING LINEN:
In 6 drachms of distilled water dissolve 2 drachms of fused sub-nitrate of silver, and add 2 drachms of thick mucilage of gum arabic. Wet the linen in the part intended to be written on with a solution of ½ oz. of sub-carbonate of soda in 4 ozs. of water. Add to this ½ oz. of thick mucilage of gum arabic. When the last solution is dried on, write what is required with a clean pen. Exposure to air will turn the ink black.

GILDING EDGES OF BOOKS:
After the edges have been cut, wash them with a compound of four parts Armenian bole and one of candid sugar, ground together till of the consistency of water. Add the white of eggs the same quantity as water. Beat the whole together and apply it with a camel-hair brush, when nearly dry burnish the surface. Then slightly moisten with wet sponge and apply the gold leaf with a piece of cotton-wool. When dry, again burnish it, interposing a thin piece of paper between the gold and the burnish.

TO MAKE SEALING WAX:
Red- 2 pints of vermilion, 2 pints of powdered resin, and 2 pints of powdered shellac. Mix them well together and melt them over a gentle fire, removing them from the heat when the ingredients are melted. Seed-lac may be substituted for shellac. Black SEALING WAX- Same as the above, only substituting ivory black for the vermilion.

PAPER THAT RESISTS WATER:
By plunging unsized paper once or twice in a clean solution of mastic in oil of turpentine and drying it afterwards by a gentle heat, it can be made to resist moisture and, without being transparent, has all the properties of writing paper, and may be used for that purpose. When warehoused it is secure from mould, mildew, mice, or insects.

BOOKS PRESERVED:
The bindings may be preserved from mildew by brushing them over with spirits of wine. A few drops of any perfumed oil will secure libraries from the consuming affects of mould and damp. Russian leather, which is perfumed with the tar of the birch tree, never moulders or sustains injury from damp. The Romans used oil of cedar to preserve.
valuable manuscripts. Russian leather covered books placed in a Stationer’s window will destroy flies and other insects.

ENAMELLING CARDS:
Sulphate of baryta is the substance employed for this purpose.

PRINTING INK VARNISH:
This is made by adding 4 ozs. of boiled linseed or neat’s fool oil to 6 ozs. of yellow resin.

TRACING PAPER:
Steep sheets of suitable paper in a strong solution of gum arabic, and afterwards press each sheet between two dry sheets of similar paper, to take off the superfluity of the liquid. This will convert three sheets of paper into a first-class tracing paper. It is indispensable that the solution be strong, about the consistency of boiled oil. Another - Mix together by a gentle heat 1 oz. of Canada balsam and a quarter of a pint of spirits of turpentine, and with it wash one side of tissue paper. It dries very quickly. Reporters use fine tissue paper brushed over with sweet oil (about every twenty sheets) and then pressed. When several copies of the same MS. are wanted, carbonic tracing paper is put between each sheet.

CARBONIC TRACING PAPERS:
Black - To a quarter of a pint of linseed oil add 2 ozs. of tallow and half an oz. of powdered blacklead. Then put sufficient lamp-black to make it the consistency of cream. Melt the whole together and while hot rub it in on both sides of white paper, not over thick, but sparingly, and let it dry well before using. Red CARBONIC - Substitute Chinese red for the lamp-black and blacklead. Blue CARBONIC - Use ultramarine blue instead of lamp-black and lead.

STRONG PAPER:
To make dry paper thicker and stronger and capable of being glazed with a more beautiful surface it must be soaked in concentrated neutral solution of chloride and zinc, slightly heated. The paper will have the appearance of parchment after being washed and dried. The chloride of zinc is formed by adding oxide of zinc to a solution of zinc dissolved in muriatic acid, then evaporating the solution to the consistency of syrup when cold. The paper to be treated must be immersed for a few minutes, then taken out, and then adhering zinc removed by a thorough wash, in cold water, prepared, and dried. This treatment draws the fibres of the paper closely together, and though reducing the paper in size, is much better. Paper may be joined permanently by passing a hot flat-iron over two sheets placed edge to edge, when saturated with the above solution. Instead of the chloride of zinc, the chloride of tin may be substituted if preferred.

TO TAKE WRITING INK BLOTCHES OUT OF PAPER:
2 drachms of muriate of tin, mixed with double is quantity of water, applied with a soft brush, will entirely eradicate it. The paper must be passed through water to wash it off.
Another- Citric or tartaric acids may be applied for this purpose without fear of injury to the leaves of books, and will eradicate ink blotches.

TO KEEP WRITING INK FROM FREEZING OR MOULDING:
Put a few drops of brandy or other spirits into it and it will not freeze however much exposed to the weather. A little salt will also keep it from moulding. When ink has one been allowed to freeze or mould its blackness and beauty will be lost.

OLD WRITING MADE LEGIBLE:
Into ` pint of strong white wine put six bruised galls, and place it in the sun for three days. Wash the illegible writing over with a soft brush dipped in the solution. Add more galls if your mixture is not strong enough to bring out the colour.

VARNISH FOR MAPS:
Drawings, after being washed over with a solution of isinglass, dissolve 2 ozs. of oil of turpentine with 1 oz. of Canada balsam, and apply with soft brush. Another- Two coats of isinglass alone, laid on with camel-hair brush, will much improve a map or print. Another- A thin solution of gutta-percha run over maps improves them. Another- Parchment size (strips of parchment boiled to a jelly) is brushed over pencil drawings to keep them from rubbing.

COPYING INKS:
White honey, purified, three parts; white glycerine, three parts; and eleven parts of black or coloured ink. This should be well mixed and left to settle for a week. The proportions of glycerine and honey may be reduced to two parts each if very fine characters are required. Another- Sugar added to common writing ink will make copying ink.