SCREEN WITH PAINTED MIRROR.

*See page 3.*

# OIL PAINTING ON GLASS:

INCLUDING

## MIRRORS, WINDOWS, ETC.;

WITH

*Remarks upon the Principles of Painting, and Decorative Art Generally.*


BY

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*THIRD THOUSAND.*


Ars probat artificem.


LONDON:

WINSOR & NEWTON, LIMITED, 38, RATHBONE PLACE.

LONDON:
PRINTED BY WILLIAM CLOWES AND SONS, LIMITED,
STAMFORD STREET AND CHARING CROSS.

# PREFACE.

THE Art of Painting on Glass in Oil-colours was almost unknown in this country till recently; and, as the subject of a book it is, so far as I am aware, entirely novel. Quite unique also is the art itself in some essential particulars, especially as applied to mirrors; in these particulars, therefore, it must be "a law unto itself."

To treat it as wholly isolated is, however, impossible; for the reason that most of the problems it presents are nearly identical with those that require solution in the practice of oil painting generally; while some of the questions it raises, as for instance what is legitimate illusion in art, and the distinction between fine and decorative art, are precisely those which modern criticism had already sought to answer, without, it would seem, finally settling. I trust, therefore, this little book will be found of interest to students of art in all branches; to painters and decorators on all materials, and to those lovers of art who are not practitioners.

Vasari lived a little too early to tell us—or doubtless he would have told us, seeing how much attention he gave to

glass painting generally—all about the beautiful mirror pictures that were painted in the stateliest palaces of Italy, by masters of the seventeenth century. Unfortunately, too, the records, later, of the works at Rome, Florence, Fontainebleau, London, and other European centres, are very meagre. I have endeavoured to throw some light upon this dark page—surely it should be a bright one—of art-history.

A remarkable revival of mirror painting has taken place in England during the last few years; and the practice of the art has extended on the Continent, and to parts of the United States. I have been in the midst of this revival, and I venture to say that few if any have had more favourable opportunities for making acquaintance with the art, in Italy, France, America, and other countries, as well as in England.

Oil painting on windows, a still more ancient, and almost forgotten art, I have likewise endeavoured to revive. And I submit that it is worthy of more consideration than has been accorded to it.

T. J. G.

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# OIL PAINTING ON GLASS.

## INTRODUCTION.

### I. Glass.

IT is hardly within the scope of this book to discuss the origin or reputed discovery of glass. A few words, however, upon this interesting subject may be in place. And some observations upon the history of the manufacture of glass and mirrors will be found to have practical import.

A well-known story of Pliny is that Phœnician merchants when cooking on the sandy beach under Mount Carmel, rested their pots on blocks of natron (a cargo of which they were importing into Syria from Egypt), when the heat caused the natron, being an alkali (sub-carbonate of soda) to form a flux for the sand of the beach, thus producing the compound, glass.

But it is very doubtful, whether glass could be thus produced in the open air by a cooking fire, for the reason that one thousand to one thousand five hundred degrees of heat are required to cause the constituents of glass to enter into fusion.

Glass is however formed when large masses of straw or reeds are burnt, these containing both alkaline and silicious elements; and it is therefore more probable that the conflagration of one of the great straw stores of the ancient Egyptians, long before the captive children of Israel complained of having no straw for their brick-making, led to the artificial making of glass.

It is certain that glass was made in Egypt at a vastly remote period. Glass bottles containing red wine are represented on Egyptian monuments more than four thousand years old. In the Slade Collection of the British Museum, there is a lion's head in glass, with hieroglyphics on the reverse fixing its date at nearly as distant a period. What is still more wonderful, the ingenious process of glass-blowing is represented in paintings in a tomb at Beni Hassan, dating at least two thousand years B.C. From Egypt the art of making glass, and vitreous coatings to earthenware, etc., spread to neighbouring countries; and its products were carried by the Phœnicians to the many distant shores to which they adventured.

Much as we employ glass now, it is not easy to realise the enormous extent to which it was used by the ancient Romans. In the first place they used it in an infinity of forms and colours for domestic purposes. The Portland vase (of the British Museum) is of glass, type of a class of vessels more costly than chased gold. There are glazed windows *in situ* in Pompeii. But it was in the employment of coloured glass, and vitreous pastes, for architectural decoration, that the Romans were quite incomparably lavish. The streets of Pompeii glisten with many coloured vitreous fragments. I have in my possession numerous small pieces of coloured glass, and vitreous tesseræ of beautiful tints, partly covered by the lovely iridescent

colours of long ages, which were picked up in the so strangely silent streets of that city of the dead, or from the heaps of debris, and scoriæ tilted outside the lines of excavation.

Coming to the glass of our day, it seems only needful to mention here that some French plate-glass is whiter than English, and on this account is preferred for painting on the "back" of the glass. "French plate," however, being less hard is more liable to be scratched.

Plate-glass after being cast is polished. This process is described in Dr. Ure's 'Dictionary of Arts,' etc.

Glass if re-heated, and kept long at a high temperature, but below the fusing point, passes from the vitreous to the crystalline state. Advantage has been taken of this fact in producing the "crystalline glass," introduced a few years back. The surface assumes floriated, or "frosted" forms, which are pretty; but the glass so treated is too brittle for some decorative purposes. It has been rather largely employed of late for painting upon; but to my mind the effect is far from satisfactory. The broken surface precludes precision of outline, however desirable, while its glistening effect contrasts too strongly with the painting.

## II. Mirrors.

PLINY tells us that the "discovery of mirrors belongs to those who first perceived their own image in the eyes of their fellow-men." According to Milton, Adam's helpmate found another kind of mirror, a precedent less dangerous, perhaps, than that set by Narcissus to the other sort.

The Romans, as I have reminded the reader, employed

glass very largely; yet it is very doubtful whether they used it for mirrors. The figurative language of ancient writers has perhaps obscured the question. We know that the Romans were acquainted with the reflective power of obsidian, or native glass, and it is certain that they had large mirrors which would magnify. But these were probably metallic, for the reason that there is no evidence to show that the Romans produced large sheets of glass, or practised the art of polishing glass.* And as their window-panes were too full of bubbles and striæ to permit of objects being very distinctly seen through them, it is hardly likely that they would use such glass—by blackening one side, or coating it with metal—for mirrors. The fact that mica, alabaster, and shells were used in windows, as well as glass, seems to compel the inference that the glass was very imperfect. When the word "speculum" is used, a window is sometimes clearly, or may be, meant; or, if a mirror is intended, it is generally equally clear that a metallic one is understood, such as may be seen in museums at home or abroad; and certainly only such were in common use. Much consequence therefore must not be attached to the passage in Pliny in which he says that the Sidonians first invented "specula." That the ancients employed gold, silver, and other metals as foils to glass, as was done in the Middle Ages, is not improbable; but more than this it is not safe to assert.

The method of forming mirrors by backing glass with lead was known in the Middle Ages, for such mirrors are mentioned by John Pecham (circa 1279), in his treatise on optics; by Roger Bacon, and others. The Germans, however, seem to have been the first who possessed the

* 'Glass,' by Alexander Nesbitt, F.S.A. Chapman & Hall.

secret of making perfect glass mirrors. Mention is made of the making of glass mirrors at Venice as early as 1317 ; but the manufacture was beset with obstacles, and metal mirrors continued in general use. It was not till 1507 that the manufacture was established firmly at Murano, whence such quantities of mirrors were exported to France, and many other countries, during the following two centuries. To this day certain descriptions of mirrors (often in black frames) are called Italian mirrors, wherever made.

But the early mirrors seem to have been imperfectly annealed, and therefore more fragile than modern glass; and it was probably owing to this fragility, as well as to the force of habit, that metal plates continued long to be used.

## III. Silvering.

HE silvering of the glass-plate claims our serious attention. Permanent as well as brilliant silvering is essential to the mirror painter, for many reasons, some of which are not altogether obvious. First, it is desirable to describe the various modes of silvering.

*The Old Mercurial Process.*—During a very long period the silvering—or as it should be more properly called, the quick-silvering—of glass was effected by applying tin-foil and mercury to the back of the plate. The great disadvantage of this process is that the metallic film is too tender to admit of any protective coat of paint being spread over its back. The film is consequently removed by slight abrasion, and quickly affected by damp, etc. Even if the plate is hung up in a favourable situation, but in the reverse

sense to that in which the drainage of the quick-silver took place, *i.e.*—topsy-turvy—it will acquire a glittering granulousness destructive of its reflective function.

*The New Nitrate of Silver Process, with Heat.*—The introduction of this process, commercially, seems to date barely forty years back. Several patents have been taken out for modifications of the process; hence it is commonly called the "Patent Process."

One of the early modes of employing nitrate of silver, patented in England by a Mr. Drayton, is often cited in order to explain the defects which it was found to develop. And, as similar defects arise from analogous causes in later and generally improved modes of silvering, it will be instructive to glance at the details of Mr. Drayton's process. The plate, then, was covered by a solution of nitrate of silver, rendered neutral by the addition of ammonia; some spirits of wine was mixed with it; and a small quantity of the oils of cloves and cassia added. "By a complicated action," says Dr. Ure, "partly physical, partly chemical, metallic silver was separated from the salt in solution, and precipitated over the surface of the glass. The metallic film being of sufficient thickness, the solution was poured off, the coating was washed, dried, and protected by varnish, or paint laid at the back. In mirrors thus prepared small specks appeared in the silver, which became little centres of chemical action, the silver tarnishing; and circular spots extended from these points, so that the mirror for use or ornament was ruined. The cause of this may be traced to the compound character of the solution employed"; or, rather its mixed character, for there is here no chemical compound. "Nitrate of silver, ammonia, spirits of wine, and essential oils with water form a very mechanical mixture;

and as the silver fell or precipitated on the glass it no doubt entangled particles of the organic matter; and these, however small, became the starting-points of the stains which eventually destroyed the mirror."

The method of silvering now in use is comparatively simple; yet grave defects and non-permanency may arise from ignorance, or want of care and cleanliness in one or more of the following particulars: 1. Neglecting to clean, or imperfectly cleaning, the plate immediately before applying the silvering solution. The atmosphere of London and other large cities deposits sulphur, with other impurities, and if any of this deposit is left on the plate it will infallibly attack the silvering,—just as it tarnishes and eventually blackens the silver of our table. This is called an oxidizing process, but, as Dr. Percy says, it should be styled a brimstonizing process. It is well known in the silvering trade that work done in a thick London fog (which is always largely charged with sulphur) will not last. 2. The use of undistilled, or badly distilled, water. 3. Leaving chloride of tin in excess on the plate. If this be not sufficiently washed away it will form chloride of silver,—silver having a predominating affinity for chlorine—and thus the silver film will assume a dull appearance. 4. Neglecting to filter the integrant solutions of the silvering solution. 5. An insufficiency of silver to solidly cover the plate. 6. Insufficiently washing away the Rochelle salt used in the process. The cheap silverer probably does not wash his plates after silvering, with any care, if at all; but stands them aside to drain and dry. This, and neglecting to filter the solutions, are believed to be the commonest causes of bad silvering.

Bad silvering by the later processes generally betrays itself in the appearance of yellowish or blackish streaks;

but sometimes also in spots. The streaks mark the flow of impurities in the water used in silvering; especially their flow with the drainage of the plate when stood on end to dry. They may not be observed in a dark room, or when dark objects, or shadows, are reflected in the mirror; but they will be visible instantly in a light room, with light-coloured paper on the walls. A fair lady in a white bonnet will find them far from flattering. Once the streaks appear, they invariably go on darkening and widening, till, often, the plate becomes "smoked," or "fogged," all over. When plates are in this state, the loss of reflective power may be much greater than might be supposed. According to measurements made by Lambert, polished silver reflects ninety-two per cent. of the total amount of the light falling upon it. The silvering of a plate, however, may lose a large proportion of its great reflective power without this being detected, unless the plate be placed beside one retaining its original lustre.

The effect of such loss, however, upon any painting that may have been applied to the mirror will be considerable. If the painting be applied on the front of the mirror, and it be comparatively transparent, the loss of so much of the value of the silver foil behind will render the colours proportionately heavy and "muddy." If the painting so applied be comparatively opaque, the dimmed silvering will reflect light objects less vividly, thus causing the colouring to appear more opaque, and therefore obtrusive; the subject will seem to have been cut out, and stuck on the glass—the apparent faults of old Italian mirror pictures, but no doubt largely due to the mercurial silvering having lost its original brilliance.

*The Cold Nitrate of Silver Process.*—In the process last

described the silvering table is heated to about 150° Fahrenheit, and hot water is used. Heat, however, may be dispensed with. But it seldom is so, for several reasons. Four or five hours are required to properly silver a plate without heat, instead of about an eighth part of that time; therefore atmospheric impurities are more likely to lodge before they can be washed away; nor is cold water so effectual as hot for this purpose.

I have pointed out (from the best practical authorities) the causes of the defective silvering of the present day; as the defects are of importance both in regard to the artist, and to a not unimportant branch of English industry. The purchaser cannot protect himself against the ignorant or dishonest silverer. In the case of two plated articles, the one having but a thin electro film, the other being thickly hand-plated, both may look equally bright when new, to the uninitiated; but an expert will detect the difference between them. In the case of two looking-glasses, however, one well, the other badly silvered, both may look equally bright when new, and the defects of the latter may not show themselves till after the lapse of weeks, or months, or a year or two.

It follows that it is of great consequence to the mirror-painter to ascertain the best source whence to procure his silvered plates. And he should regard with suspicion all the cheap kinds.

## IV. Re-Silvering.

F a mirror picture painted on the front of the glass becomes defective in the silvering, it may be re-silvered without injury to the painting; provided a safe process be employed, and due precautions be taken.

The mercurial process is available; and so, too, is the cold nitrate of silver process. The silvering may have to be again renewed at no lengthened period; but this might likewise happen were the process with heat ventured upon. This last, however, is attended with great danger to the painting; indeed, I have not known it to have been employed without causing some injury to the artist's work. The heat blanches some colours; the varnish and oil shrink, producing a million fine cracks, thereby rendering the transparent colours opaque, and depriving the painting generally of its proper nourishment. Added to this there is a risk of the plate being broken by the heat, which not very unfrequently happens. This risk increases with the size of the plate; and this is one reason why plates increase in price in a rapidly increasing rate, as their dimensions extend. Even when a mirror picture is re-silvered by a cold process, it should be thoroughly protected from any water, or damp, that is impregnated with acids or alkalies. In these remarks on re-silvering I have had in view, as already intimated, a mirror painting on the front of the mirror; but no doubt it could be protected from injury by the hot process of silvering, if the silverer would step out of his trade routine, and exercise a little ingenuity. The front of such a painting would only have to be protected by something equivalent to the Brunswick black, which, spread over the back of a painting done on the back of a mirror, protects it from injury when silvered, as it is, by the hot process.

## V. Gilding, etc.

THERE are various modes of gilding glass, such as by aid of varnish, or borax (with heat); or fluoric acid (in embossing); or otherwise. But I need not dwell upon these. A process, introduced a few years back, of gilding glass, by precipitation (probably from the chloride of gold), offers perhaps, the best claim for any application of artistic decoration to gilt glass, that is to say, if, for the "ground," the effect of burnished gold be preferable to that of "mat" gold. For, the effect of precipitating gold on glass is (excepting of course the yellow colour of the metal) the same as precipitating silver. But gilt glass can hardly serve as a mirror; it is hard to reconcile oneself to a jaundiced hue in the carnation of the face, although we may be enamoured with the "golden glow of Titian." With, however, this coloured, and therefore conventional ground, painting more in the conventional decorative style, than is desirable on silvered glass (which merely represents air, space, and objects unmodified) should be applied; this has a most pleasing effect, in suitable situations. Painting has also been applied to the back of this gilt-glass. But the results are less satisfactory, for reasons that will appear later.

A method of coating glass, with platinum, has been introduced in France; but I have not tested it as a ground for painting.

# PART I.

## EXPLANATORY AND HISTORICAL.

### CHAPTER I.

DEFINITIONS, ETC.—PAINTING ON TRANSPARENT GLASS; AND ON THE FRONT, AND THE BACK OF MIRRORS, ETC.

THERE are four principal modes of oil-painting on glass, as follows:—

1. *Non-transparent painting on transparent glass.*—In this mode the materials are the same, and the method the same, except in one particular, as that employed in painting on the front of mirrors, which will have attention in due course. The sole particular in which it differs from this kind of mirror painting is this—it must be much less transparent in the shadows and half tints; for the reason that, it has no silver foil or ground; the paint, therefore, must have sufficient body in every part to prevent anything dark, or bright behind, from being visible through it, and thus affecting the colouring. This mode is much used for decorating unsilvered plates of glass to be inserted as "panels" in

screens. As, however, the back of the screen is not covered in the usual way, if both sides are likely to be seen, and it be found desirable to hide the unpleasant appearance of the back of the painting, this can only be done by repainting on the back of the glass the subject on the front.

The outlines must be made to coincide with those showing through; and a "study" of the subject should be used to "fill in" within the outlines; but less finish will usually suffice.

2. *Transparent painting on transparent glass.*—This kind of painting is applied to windows, magic-lantern slides, etc., and will be considered at some length in the latter part of this book.

3. *Mirror-Painting on the front of the glass.*—This mode of painting on the face of the already silvered mirror, seems to me to be by far the most important that I have to treat; therefore several chapters will be devoted mainly to it. As, however, the "mirror" is now being formally introduced to the reader, and he has already heard something of its time-honoured historical antecedents, let me add here a few words respecting the very respectable lineal derivation of its name. The word "mirror" then, comes to us from the French *miroir*, in old French *mircor*, and Provençal, *mirador*; and these again, like the Italian *miraglio*, *miratore*, and *miradore* (now usually replaced by *specchio*), are derived from the Latin *miror*, to wonder, to admire, to gaze upon with desire or astonishment, as are the words miracle, mirage, and others indicating something to admire, to prize, to regard as a pattern.

4. *Mirror-Painting on the back of the glass.*—In order to clear the way for due consideration of the application of oil-

painting last mentioned, I offer here all that I think need be said on painting applied to the back of the mirror. The painting, then, may be done either before, or after, the silvering. The former is the usual course, because simpler, and less toilsome. In this case it is of the first importance that the outlines, or, rather, the boundaries (for no boundary lines must appear), should be rendered sharp and true, and with a good body of colour; otherwise their ragged, or blurred edges will be emphasized by the subsequent silvering.

The chief difficulty in painting on the back of the glass is to calculate the effect each touch will have when viewed in front. On so viewing his touches the artist will often be surprised at the discordancy they present, though he may have calculated their relative effect very carefully. There is no expedient that will materially lessen this difficulty. All that can be done is to register, so to speak, the value of the transparent, and the solidity of the opaque couches of paint, by placing a sheet of white paper behind the former, and a sheet of black paper behind the latter.

The colours that are more or less transparent must be applied at the outset; but they will only appear as such and of their proper tint and hue when opaque paint is spread over them. Of course the transparent colours must not be reserved for final glazing, the whole process of ordinary painting being reversed, the last strokes of the latter having to be the first strokes of painting on the back of a mirror.

As the face of the paint must be as smooth as the polished surface to which it clings, "texture," for the representation of the surfaces of objects, can only be obtained by means less direct, for the most part, than those available for other applications of oil-painting. When using transparent colours, and texture be required, they must be applied in a

broken manner; and when using opaque colours for the same purpose, they should be spread thinly, then scraped, and other tints or hues passed over them so as to show between the interstices of the scraping, according to the requirements.

When the work is otherwise complete a solid coat of white should be spread over the whole; and, when this is dry, a thick coat of Brunswick black. The first will prevent the second from showing through, as it might to the great detriment of the colouring. Brunswick black is used as the "overal-coat," because it effectually protects the painting proper from injury by the subsequent silvering, even if the "hot process" be employed.

If the plate is already silvered, a separate study should be made (indeed this is very desirable in all cases of painting on the back of the glass), and the outlines of this study traced on the back of the silvering. This being done, the portion of the silvering that the painting must occupy is "etched" away by a scalpel or other sharp blade; taking care not to scratch the glass. The etching may be effected, and sweet outlines obtained without much trouble, if the silvering has been done by the mercurial process. But it is not so with the modern silvering, this being covered with a coat of hard varnish-paint that is almost impossible to remove without leaving ragged edges. Only for a large plate to be viewed at a distance should it be attempted; and then, so great is the labour involved, it would generally prove more economical to exchange the plate for a new one unsilvered.

All painting on the back of mirrors has, however, inevitable defects, which are apt to prove somewhat antipathetic to artists, and amateurs of taste. Its difficulties, while augmenting the cost to the purchaser, preclude commen-

surate results; while its practice is so cramping that it evidently should not be recommended to the young artist, or amateur. For the reason that the painter cannot see the progress of his work with the usual facility, the colouring can hardly be very harmonious. To mix each first touch of paint to the required hue or tint, and lay it on at once in the right place is not easy to an experienced artist; but the difficulty is enormously increased when the work has to be turned to ascertain how the last touch behaves relatively to all those which preceded it. The colouring must also be comparatively dead, owing to the opaque ground. It cannot have the kind, and degree of transparency to be obtained by painting on the front of the mirror, as I hope to show. Moreover the painting can hardly appear other than flat, and monotonously smooth, or with little spirit of "handling," or "touch," descriptive of texture, and expression of light. And, although by this method (unlike painting on the front of the mirror) there are no reflections from edges of the painting when the mirror is viewed at an angle, yet the painting is obscured by reflections from the surface of the glass before it, as well as lowered in brilliancy by the thickness, and any greenness, of the glass.

One great recommendation however may be claimed for painting on the back of a mirror. The work is removed from the risk of its face being scratched, or abraded; or of being discoloured by dirt, etc.; consequently it will require no cleaning. But even if the work could be made of higher artistic value, this advantage is not great, because painting on the front of the mirror may be rendered sufficiently hard, and "enamelled," so to speak, to answer all reasonable requirements, and to require a chisel to make much impression upon it.

It is a curious fact, and one having important bearings on

art outside of mirror painting, that some ancient mirrors in Italy that are painted on the back seem to be quite as much faded as those of the same age painted on the front. The interposition of plate-glass certainly does not prevent the chemical action of light either upon colours, or bad silvering. But, more than this, it is possible that glass, at least of some kinds, when brought into actual contact with artist's colours has a chemical action upon them. We ought not to be surprised at this, remembering the constituents of glass, the changes it undergoes, the decay it suffers, hard as it is. The liability of the manganese ingredient of some glass to change is evident in the old window glass that has turned a purplish rose by exposure; while the parts that are protected by putty, or lead, remain white or turn yellow.* Moreover, glass "sweats," as it is called, the exudation, or efflorescence having to be removed. It may therefore be readily believed that water-colour drawings may when mounted in close contact with the glass suffer some injury, besides the serious damage that often arises from condensation of moisture on the glass.

If, then, glass has a chemical action upon artist's colours it will be likely to produce visible effects on the face of colours when their face adheres with great tenacity to the back of a mirror. But it is hardly conceivable that any chemical action in the glass could penetrate the substance

* Dr. Percy, alluding to this pink glass, in a letter to the *Times*, a few years back, pointed out that "oxide of manganese is used in the manufacture of window, and some other kinds of glass, to counteract the colour which would be produced by the ferrous oxide, which is always accidentally present in the materials from which the glass is made. The action of light causes the manganese to pass to a higher degree of oxidation, in which state it is pink, or purple. If a piece of the pink glass be taken and heated gently, it will lose its colour and become quite colourless, as at first. Thus we see that, even in such a substance as glass, chemical inter-molecular movement may occur."

of the colours so as to affect their face, when their back, only, rests on the front of a mirror. Furthermore, painting on the back of a mirror cannot be so secure at its own back from injuries as is the back of painting on the front of a mirror.

*Cleaning and varnishing Mirror Paintings.*—To a painting on the front of a mirror should, however, be accorded a little of the attention that is given without question to any other oil-painting. I may therefore add here that to clean such painting, when requisite, it will ordinarily suffice to wash it with cold water, applied with a sponge, dry it with soft rag of fine texture, and then polish it with an old silk handkerchief or unwashed chamois leather. If the picture is damaged it can be restored in the usual way. Any mirror picture that has become dull, or dirty, through age, or the use of a soft medium in the painting, may, after it has been cleaned, be revived and protected by varnishing it. If for this purpose the best amber or copal varnish be employed, the picture should last for centuries.

## CHAPTER II.

### OBJECTIONS TO, AND LIGHTING OF MIRROR PAINTINGS

IN accordance with an indication made in the last chapter, I beg the reader to remember that henceforth whenever mirror painting is mentioned it is to be understood as applied to the *front face of the glass*, unless otherwise specified.

An objection, however, may at once be raised to applying painting thus; on the ground that when the painting is viewed at an angle, *reflections* of the back of its edges are thrown from the silvering, owing to the thickness of the intervening plate-glass.

Now, in the first place these reflections are barely discoverable, and only slightly apparent if the piece be large, when the work is inspected fairly, and as any other picture should be, that is, at some distance directly in front. But supposing that they were always visible; and admitting they may possibly obtrude at first sight, as an adventitious incident—what then? Well, a hasty inartistic observer might on such slender ground immediately condemn this application of painting. But a person of more artistic instincts would, I feel confident, on perceiving that the reflections are inevitable, instantly, and almost unconsciously resolve they shall not prejudice him. Nay, more, he would

almost as quickly feel that they afford a certain optical advantage as a set-off against the distraction they may at first cause.

The reasons for this optical effect are not far to seek. Artists know the value of doubled or re-duplicated outlines (so often seen in drawings by the old masters); for, should two or all of the lines be inaccurate, they yet assist the eye, by the suggestive indeterminateness of their repetition, to select the true from the untrue line; or to conceive a true medial line, or true outside line, to which the tentative, posed lines approximate. The duplicated outlines of the mirror picture may in like manner assist the eye; but they also have another important function. The reflected outline, being on a slightly more distant plane, helps to express the relief of the object depicted. The *rationale* of this, is, I submit, as follows: On the first glance the effect of the doubled lines is analogous to what we experience with our binocular vision, which enables us to see partly around objects that are not too near or too large. As we continue to look other laws come into play. The eye, directed by the judgment, becomes with marvellous rapidity more or less insensible to any appearances of an object that do not seem to be essential; while it is no less alert to select those appearances which assist to form a *distinct view* of the object. So, then, these mirror reflections when seen against the lighted side of the objects depicted will "throw out the lights;" and, when seen against the shadowed side they will blend with and enforce the shadows, in both cases helping the illusion of the representation.

Again, in some subjects these reflections pleasantly enrich the composition; as when they duplicate blades of grass, rushes, stems, leaves, and other of the multitudinous details of Nature. In any case the reflections are surely less

difficult to tolerate than are the "leads" of stained glass. Even those to whom they may be unpleasant at first, soon become reconciled to them.

It is curious how diversely these reflections affect different minds. Artists, as intimated, rarely raise objection to them; their eyes and minds are trained to accept necessary artistic conditions, and to make due allowance for conventions inseparable from all forms of art—or it would not be art at all. To the majority of non-professional persons these reflections afford a naïve pleasure. A few, however, insist upon looking for, and at them, and may, therefore, find them a disturbing element. These are the people who could not enjoy a play if they went behind the scenes and found King Lear's crown made of tin, and Dutch-metal, studded with paste diamonds and rubies; or Hamlet's princely insignia an electro-gilt counterfeit. Mirror painters should tell a too curious critic, as Rembrandt did, that the smell of paint is unwholesome, and that pictures are not painted to be smelt at. Sir Joshua Reynolds, in discoursing on the "odd scratches and marks" visible on a close inspection of Gainsborough's works, says, that, "by a kind of magic at a certain distance they assume form and all the parts drop into their proper places." In like manner the reflections of the humble mirror painter, seen aright, if seen at all, will be found to be not devoid of a "kind of magic."

But the mirror painter has to count with other reflections, to which objection may be taken. I mean the reflections of natural objects from the unpainted portions of the mirror. These amount to little more than this—that the painted objects have a natural, instead of an artificial background within the frame or boundary. But this may be a distinct advantage, when the work is rightly placed, and properly lighted. For, the natural background, with its sense of

space, may greatly assist the verisimilitude of the representation.

As, however, the advantage, or otherwise, of such reflective background much depends on the *placing or hanging of the mirror painting*, I would pause here to offer a few suggestions. Generally speaking, then, the same conditions hold good as for all oil paintings—only more so, as an Irishman might say. There cannot be too much light, if from high above, or well from the side, and always comparative darkness in front is desirable. If thoroughly well lighted, from a proper angle, reflections from the mirror of *sources* of light, even, or brightly lit objects will not be found very mischievous. I know by experience that mirror pictures seen beneath an electric arc lamp have a splendid effect. Generally, however, a mirror picture should not have a window, or any very bright objects *vis-a-vis*. The spectator also should take up a position that does not coincide with the angle of incidence and reflection of the light from a window. An ordinary oil painting hung facing a window cannot be seen properly, owing to the gloss from the varnish. If a mirror picture is hung so that the painting receives little light, while yet the unpainted portions may reflect an opposite window, better would it be to remove it to a dark hall, or corridor, where the painting, by telling as dark on a light ground, might have a surprising, and charming effect.

Nevertheless, painting applied to a mirror appears in ordinary light—always provided there are no strong reflections—more luminous than when applied to any other material. Hence, mirror pictures are serviceable as points or *foci* of colour, in most reception rooms, even when indifferently lighted, or when the decorations are in a low key, or have become dingy from time, or London smoke.

The objection sometimes raised to painting on mirrors on

the account of the brittleness of glass, hardly needs discussion. A mirror may be wantonly or accidentally injured, like an ordinary picture; but it may last much longer; for it is not liable to stretch, or tear with moisture or heat, and to decay and perish like canvas; nor, like a wood panel, from the same causes, to warp and split, or crumble worm-eaten to powder. A mirror picture can never require to be submitted to the always dangerous operations of re-lining, or of being transferred from mouldering wood to canvas.

It may be asked, Why paint on mirrors at all? Well, certainly they could not be logically decorated if we used no larger plates than would yield exactly the reflections we require—if we had no larger spaces to deal with than are rounded in the span of a Roman lady's polished metal *speculum*, or in the hand-glass used by a modern beauty to adjust the mysteries of her back-hair. So far from this being the case, however, mirrors intended to be used as such, are rarely so small that they will not admit of painted decoration, and yet have ample space about their centre for all the required purposes of reflection.

Moreover, silvered glass is very largely employed as itself an embellishment, with little or no reference to its reflective power—as a more splendid surface to insert as a panel of a wall, or of wood work than would be afforded by gilding, or painting. If, then, glass is often used chiefly as decoration, why should not the mirror painter increase its decorative value, if he can?

Objections are, however, made to his doing so by some who are possibly misled partly by the application of the words "mirror," and "looking-glass" to silvered glass of any size and in any situation—whether convenient for toilette purposes, and admiring ourselves, or not. But surely here the logic is entirely on the side of the painter. Why should

he not regard silvered glass simply as a *ground*, as he might any other bright, though less bright surface? And—so regarding it—why should he not paint on a small plate to hang like any other picture in the house? or on a larger plate as a fold for a screen; or on a still larger plate as a panel of a wall? Why—in this case also—should he not paint on the centre, or any, or all parts of the glass, provided only he does not sacrifice the whole virtue of his ground? Many reasons will, I trust, appear as we proceed why the artist should be free in this matter; therefore, they need not be offered here.

## CHAPTER III.

### ORIGIN AND HISTORY OF MIRROR PAINTING.

IT is just possible that the idea of painting on silvered glass was suggested by the *auripetrum*, and *pictura translucida* of the Middle Ages, of which I shall speak further when I come to Window Painting.

But it is more probable that the fragility of the Murano glass of the sixteenth century, and the fact that it was far more costly to replace than modern plate-glass, led to the first application of painting to mirrors; the object being simply to cover and conceal a crack by painting over it a spray of flowers, or other subject adapted for the purpose, as we see on many of the oldest mirrors. Indeed so many of the old mirrors are broken, that one is almost tempted to suspect that they were sometimes cracked expressly to receive the charming decoration. The inference is surely as plausible as the explanation of the spread throughout China of a passion for roast pig, given by Charles Lamb in his famous essay. Seriously, we often discern that the artist could not restrain himself to the crack, but carried his painting far beyond it. The next step—the application to an unbroken mirror of so pleasant an addition—was but short to take.

That painting on mirrors originated not far from the

great Italian centre of mirror manufacture is highly probable. The Chinese have painted on small thin pieces of looking-glass from apparently a distant date, but their performances are insignificant. Much more important are the paintings on the back of mirrors, executed by native artists in India, often with a minute multiplicity of detail rarely attempted in the West. The early Oriental practice of this art, like that of some others, was probably due to intercourse with Portuguese, and other traders.

To Italy then, may reasonably be assigned the origin of the art, and Italy produced in the seventeenth and eighteenth centuries its ablest masters—who have not been without skilful rivals in France, and other countries. Of the old masters of the art I may particularize three, Carlo Maratti and Mario di Fiori, the Italians, and Jean Baptiste Monnoyer, the French flower painter. In the Colonna Palace, Rome, opening from the Great Hall, there is a grand room lined with mirrors, which are painted with flowers by Mario di Fiori, and with *amorini* by Carlo Maratti. Lady Morgan speaks incidentally of the latter in her 'Life of Salvator Rosa' as having "condescended to paint cupids and roses on fragile mirrors in the splendid palace of the Colonnas." The "roses," however, were by Mario di Fiori, and whatever Carlo Maratti's condescension, these mirrors have not proved particularly "fragile." Room VII. in the Borghese palace, Rome, is likewise richly decorated with mirrors painted with cupids by Girofiri, and wreaths of flowers by Mario di Fiori. There are examples also by Carlo Maratti in the Pitti palace, Florence. The skill of Mario Nuzzi in flower painting, shown largely on mirrors, earned for him the name by which he is known of Mario di Fiori—Mario of the flowers —and led to this name being given to the street in Rome

in which he worked, and which is still known by that name.

I have been informed that there is a room in Florence that is lined, both walls and ceiling, with mirrors, decorated with painted vines. This work is, I believe, of comparatively recent date. The room I have not seen, but imagine the vines carried over the ceiling as well as the walls! How delightful, in a town house, to fancy oneself under an arbour of vines, or *pergola*, as the Italians say. Cupids, however, with flowers, or fruit, birds, etc., in arabesques, or backed by painted trellis-work, like Correggio's lovely frescoes in the vault of the Camera di San Paolo, at Parma, are the favourite subjects. Many noteworthy examples besides those I have named are scattered throughout Italy; the art has always commended itself to the artistic and decorative instincts of the Italians, and it is still practised by them. Every year samples are shown in the principal art exhibitions of Rome and other Italian cities.

The old mirror paintings that are to be met with in other countries of Europe are almost invariably by Italian artists. They were Italian artists who decorated the *Salle des Bains* for Napoleon I. at Versailles, removed many years ago to Fontainebleau. This bath-room furnishes the most interesting historical example of mirror-painting in France with which I am acquainted. The walls are completely covered with mirrors, adorned with arabesques of flowers, etc., and, if I remember rightly, a few cupids. The painting is executed at the back of the glass; and although the style is a rather meagre Pompeiian, inclining to the severely classical, as might be expected in a work of the "First Empire," the effect is charming.

Few mirror pictures of mark have been executed by deceased painters in, or brought to, this country besides

those which decorated a room in Northumberland House, Charing Cross, before its demolition; and one that is in Kensington Palace, by J. B. Monnoyer. This work consists of a garland of flowers, and was executed for Queen Mary II., who was so attracted by its charming character that she sat by Monnoyer during the greater part of its progress.

Among comparatively recent instances of the employment of mirror painting may be mentioned the decoration of a conservatory for Sir Richard Wallace; of a bath-room in the house of one of the Vanderbilts, at New York; and of a large room in the house of a gentleman at Paris, whose name I forget. These works however have had no *suite*.

At length, about nine years back, a revival of the art commenced in this country, which may, perhaps, be attributed in part to the exhibition here, shortly previous, of a few mirror pictures by Italian artists—in response to an invitation I had sent. The revival soon procured the introduction of mirror paintings not only into palaces and mansions of the great, but into countless homes more or less humble. Examples were also sent from England to many parts of the world, including the most distant. In various parts of America the art has also made its way. Shortly after this revival began I received a commission to execute a mirror picture, thirteen feet long, for the decoration of a dining hall. My reason for mentioning this is to say that it was mainly during my execution of this work (now in America) from my design that I found it desirable to change the Italian method employed in the art, and came to those conclusions which are embodied in the theory and practice set forth in this book.

## CHAPTER IV.

### RECENT AND POSSIBLE APPLICATIONS OF MIRROR PAINTING.

AS we have seen, mirror painting historically considered has been of but limited application. Since its revival, however, it has been found serviceable in a variety of ways not before dreamt of, and it seems to me that the art admits of many other advantageous applications.

The natural home of mirror decoration is amidst light, splendour and gaiety—in the brilliant drawing-room, ball, or music-room, the dainty boudoir, or the gay conservatory. What more suitable, also, for the adornment of the *foyer* of a theatre, or opera-house? Sir John Gilbert, R.A., has kindly permitted me to quote from a letter in which he says, "I cannot conceive anything more brilliant for enriching, and at the same time assisting greatly the lighting up of a saloon—an important and most valuable quality, in public assembly rooms more especially." Sir John Millais, R.A., afterwards wrote to me, "I quite agree with Sir John Gilbert, and think your painting on glass a beautiful way of decorating an interior." And several other eminent artists have borne similar testimony.

Again, I can think of nothing pictorial more likely to surprise and amuse, to interest and cheer than this brightest

and gayest of decoration, if placed in hospitals, convalescent homes, and other refuges for our afflicted brethren.

Hitherto, however, mirror painting has found readiest admission into the rooms of private houses. It has been appropriately used for the decoration of chimney, console, and pier glasses; over-mantels, girandoles, and looking-glasses of all kinds. A large number of plates, painted as independent pictures, have been hung on the walls of dwelling-houses, as any other picture would be. Mirror pictures are not seldom employed as panels of walls, and doors. When inserted in the folding doors of drawing-rooms they are an unfailing relief and resource to the shy beauty, as well as the unattached "wall-flower." They are well placed in the cornice and jambs of the mantel-piece, where they enliven the hearth, and may perchance also the conversation, or else, when we are lonely, possibly break a thread of sad memories while musing over the "faces in the fire." The side-board is evidently a capital field for subjects of still life, etc. Nor is the decoration unsuitable for piano-fronts, since glass is a good conductor of sound. Apropos of pianos, when an upright grand is wheeled from the wall to face the company in a private concert, the unsightly open back of the instrument may be pleasantly hidden by placing before it a fourfold screen with mirror pictures without deadening the sound unduly. Indeed the many kinds of screens, so conducive to comfort and so ornamental, whether before the fire-place in summer or about the room at any season, are specially suited for the reception of this decoration; and, so applied, surely no other can compare with it. On any inclination of the leaves of the screen towards each other the subject of each is reflected in the glass of, and apparently from behind the subject of its neighbour, and the effect of this duplication, changing as it does the relative

places of each subject at every move of the spectator, is really fascinating.* For the embellishment of walls the field is almost as wide as in any other kind of decorative painting. As instances of what may be done, on a dado you may paint all the birds of the Zoological Gardens (and those represented as flying should be more illusive than on any other material); on a frieze you may hang a Louis-Seize, or any other festoon of all the flowers. In a boudoir you may illustrate the Seasons on the wall panels (meaning of course the perennial charms of the occupant); with Aurora and Hesperus on the doors of entrance and exit.

Mirror pictures have been put in panel frames of a yacht; they are likewise available for the great ocean "ferry-boats." The sea itself has been painted on a mirror in very thin semi-transparent colour, and the shimmering light reflected through the paint, rendered the translucency of the waves almost illusively. Why not depict the Grotto Azuro at Capri in the same way? The effect should be magical. I have a secret belief that the depths of the sea also could be represented with startling effect on mirrors, should any person desire to have a pictorial aquarium. I would suggest that the glass be first covered with a thin film of tinted medium to indicate the sub-marine depths. Then, a sandy bottom should be painted strewn with sea-anemones, corals,

* Nevertheless a preference may reasonably be given to painting on unsilvered glass for screens to be used for some purposes—as, for instance, for a fire-screen; because it will allow a cheerful fire to be seen through the unpainted portions of the glass, while intercepting any excessive heat. Then the employment of transparent glass, partially painted, for large draught-screens, offers certain advantages. It will appear less obtrusive, and to contract the room less than the usual materials of screens; persons will be visible, behind the screen, coming in at the draughty door, or wherever placed. Such screens, however—behind which no Lady Teazle could take refuge—would never do on the stage; the best situations and surprises of half the comedies would have to be omitted.

and shells; above *a la Japonaise* would dart, and curve, and undulate, some of the many "odd fish," and monsters of the deep; not forgetting the "squirming" Octopus—if you will, even Victor Hugo's full grown *pieuvre*. By the way, to render the reflections on the surface of nearly still water, the mirror lends itself most felicitously; a rippling stream, for example, may be suggested with but a few lines.

Other employments of mirror painting may occur to the ingenious reader. For my part I have no doubt that a decorative rendering of sunset, moonlight, and other effects would be helped by the employment of silvered glass slightly tinged with yellow, red, or blue. At present, however, the only coloured glass suitable for painting on, and that could be silvered, is a plate-glass objectionably thin for large work and our purpose, and of a sanguinary red, bilious yellow, or arctic blue and green; the kind of glass one meets with in "borders" of staircase windows, and conservatories, mostly of suburban villas; and which makes the hair stand on end, and sets the teeth on edge of persons blessed, or banned, with an "eye for colour." Fine decorative effects might likewise be obtained by applying gold or silver in the "leaf" state, or coloured "bronzes," to the back of plate-glass, and painting on the front, or (before the application of these foils) on the back.

Coating the back of plate-glass with black to make a "black mirror" (or better with dark blue) would be advantageous for a decorative treatment of moonlight effects. I have not tried it; I do not claim to be an adept in necromancy; yet, I further think that, with such a ground, a figure of "Night," or "Luna," would turn out well. The black mirror, by-the-by, was used by Peter van Laer (Bamboccio) and other Flemish masters to paint, not on, but from the reflections therein of landscape and other subjects.

Lastly, many illusive effects are yielded by placing painted mirrors opposite each other. A German artist—so I am told by one of our Royal Academicians—has painted mirrors on the walls of an approach to his studio; subjects, river scenes with rushes, swans, etc.; and the effect of these, reflecting many times into each other is said to be charming. But perhaps more illusive effects are produced by placing two mirror pictures of more or less similar subjects, facing, but somewhat diagonally to each other, the impression of retiring vistas being thereby conveyed. And if, between painted mirrors, so situated, a plate of unsilvered glass be interposed, with, say, hovering cupids painted on it, the effect of these, reflected from both sides with all the other reflections, and all seeming to change their relative places as we move, will be curious and amusing to the last degree. By similar but more elaborate contrivances, and on a large scale, with a pencil or beam of electric or lime-light thrown from part to part of the whole, and changing from time to time in colour—to indicate pale and golden sunlight, sunset or dawn, lightning and storm or what not—a hall fit for the fairies might be constructed; a crystal palace of enchantment, surpassing the wonders of the "Arabian Nights."

The purist will object that these are tricks. Unquestionably they are so. But all art may be regarded in a sense as a trick. Every picture, no matter how produced, is an illusion, nay, a delusion, from beginning to end. We have reconciled ourselves to the delusion of a painting on canvas for some centuries; the same painting on a mirror is new to us, it is but of yesterday. For my part I am very latitudinarian as to everything in art—or by artifice, if you will—that affords innocent pleasure. In this respect—alas, not in others—I am like Gainsborough when he devised the box to show his transparencies on glass by candle-light.

Unfortunately for my argument mirror painting has been prejudiced by the parodies of it that have been perpetrated. Bad work never looks so bad as, though good work never looks better than, on a mirror. But many people will judge of an art, as of a man, by its, or his, worst. I trust, however, enough has been said to convince the reader that this art admits of many pleasure-giving applications. In short, I submit that wherever silvered glass is serviceable for apparently increasing the space and air, wherever its gaiety and varying light and shade are valuable, wherever a blank wall is relieved by its reflexes, or a dull place brightened by its lustre; or, on the other hand, wherever it is so situated that it but conveys the impression of a cavernous depth—there a fresh illusion, surprise, and charm, will be presented by the painted decoration; whether thrown, as it were on the surface of the glass with the apparent carelessness, and naïve naturalism of the Japanese, or set out with the studied symmetry of the more conventional European styles. The effect of silvered glass being simply that of space, the floral and other fancies spring before us as by enchantment, suggesting endless natural beauties. Like little Alice we pass, as it were, through the looking-glass into wonderland! Indeed no sooner is the decoration introduced into a room, than it becomes, as it were, companionable—a centre of curiosity and interest, as of decorative effect.

# PART II.

## MIRROR PAINTING CONSIDERED SEPARATELY; AND IN RELATION TO PAINTING AND DECORATIVE ART GENERALLY—THEORETICAL AND PRACTICAL.

### CHAPTER V.

#### CHARACTERISTICS.

IN the practice of an art the best results can be expected only when the practice is founded on a true theory. To establish a sound theory it is necessary to understand as far as possible, the actual or possible conditions under which the art must, or may be practised.

Now, in taking silvered glass as a material on which to paint it is at once perceived that it differs essentially in three particulars from all other materials employed for a like purpose. These are (1) the surface of the glass is perfectly smooth; (2) the silvering at the back of the glass reflects light to an unparalleled degree, and (3) any painting on a

part of the mirror must be accompanied by certain reflections of natural objects, of which I have already spoken (p. 19).

First, as regards the exquisite *smoothness of the polished surface*, plate glass should be, so far, a theoretically perfect material to paint upon; for the more smooth and even the surface the more perfectly will it receive every touch, and inflection of the artist's brush. Let it not be supposed that on this polished surface the paint will not adhere, or that the brush in making a stroke will find no "tooth," and therefore slip, and slide beyond the artist's control. In point of fact, there being no inequalities wherein air could find its way, atmospheric pressure comes into play, and every stroke will be found to be deposited in perfect response to the artist's intention. If the angels keep records, or "mirrored memories" of our deeds, they will not be more truthful. The sensation of painting on plate-glass can only be described as delicious. In the early unsophisticated ages of painting, I allude more particularly to the first oil painters of the Netherlands, the ground of washed sulphate of lime (the *gesso* of the Italians) was laid as smooth as possible, and finally brought to a polish, necessarily short, however, of the polish of plate-glass. Similarly smooth were the grounds of the later Dutch masters of *genre*; and so must the painter's grounds be now for small, delicate, and finished work. Should it be asked: "How is 'texture' to be got where required?" the answer will be given fully in the next chapter.

Secondly, in respect to the light reflected from the silvering at the back of the glass:—well, we know that colour is most brilliant, beautiful, and diffusive, when light, instead of being reflected from the surface of the colour, is transmitted through it—hence the beauty of stained glass, and gems properly foiled, even without facets. This has of

course been known to the artists of all schools. The early Flemish, and other, and later painters, gave a preference to the *gesso* ground above-mentioned, or a ground of flake white, mainly because such brilliantly white ground would add beauty to the colours by reflecting through them. In order to preserve this property of the ground, many early masters painted parts of their pictures, such as the flesh, transparently, so far as they could, with a translucent oleo-resinous medium. They probably used very little of the medium in such parts, perhaps none at all in some cases, but in such cases, and indeed in all, they added a varnish of similar character—a mixture serving both as medium and varnish—made with amber probably according to Sir Charles Eastlake—see his "Materials for a History of Oil Painting." In consequence of this practice of working transparently and with a medium and varnish of this kind, their pictures acquired the gem-like brilliance which they have retained to this day. The preservation of this light within, the *luce d'entro* of the Italians, has likewise been sought in the later schools, though by diverse modes of procedure. Rubens sought for it with his golden-brown shadows. "White paint," he told his scholars, "is poison if it creeps into the shadows." Why?—because it would cut off the light from the ground. Titian, after his preliminary operations, sought for the same internal light to be transmitted through the final glazing; and to this is largely due the subtle beauty of his colouring.

As, however, vastly more light is reflected from silvered glass than from a ground of *gesso*, or flake white, as shown by the experiments of Lambert (p. 8), colours painted thereon must be proportionately more luminous, in the degree of their transparency. Even where the colours employed are in their nature opaque, or comparatively opaque,

some of the light which finds its way a long distance behind the edge of the painting will be reflected from the silvering through them, if they are not loaded very heavily. The thicker the glass the farther will the light find its way at the back of the painting; consequently the more will it illumine, soften, and harmonise the colours.

There are other conditions to note in this connection. First, there is the absolute non-absorbency of glass. Secondly, the necessity of leaving portions of the glass unpainted, or it would no longer be a mirror picture. Thirdly, the absence of any apparent surface, or fixed, or painted background to which the painting can be brought into relation. These important points, however, together with that quite unique condition—the reflections of natural objects from the unpainted portion of the mirror—may be dealt with more advantageously when we come to consider the materials to be used, and the treatment to be adopted in this art.

I would merely add here, that since the art occupies a field of its own, and does not encroach upon any other, it should not provoke jealousy or opposition from painters on other materials. A mirror painting will be found to serve as a natural and harmonious link between the looking-glasses and any ordinary pictures or decoration that may be in a room. And the novelty, or peculiarity, of its appeal may awaken a taste for art of all kinds where it did not previously exist.

## CHAPTER VI.

### THEORY.

IT is assumed that we are now in a position to construct a theory of mirror painting. Accordingly let us take, first, that condition of the art from which, as it seems to me, the most important principle of its practice should be deduced, viz: that the mirror painter has to deal with a virtually invisible surface. Where the mirror surface actually exists the eye perceives nothing but apparently empty space; and so passing, as it were, through that space, reaches whatever natural objects may seem to be beyond. The only logical conclusion from this is, I submit, that, whatever object is selected for representation, it should be painted to appear as possessing a detached independent existence, as though, in fact occupying the apparently empty space, and therefore, with its full natural relief; in order to harmonise with the reflections around it of objects in their full natural relief.

These reflections are illusive; therefore *the painting must be illusive*, so far as the painter's skill admits, and within the legitimate aims of art. If the painted objects appear to be flat they will falsify the essential function of the mirror; they will betray and obtrude a surface which can be visible only in the degree that the mirror is defective; they will arrest the eye when it would pass as it were into the mirror; and—a minor yet important consideration—the apparent

expansion which a looking-glass gives to a room will be more or less sacrificed.

We have next to consider—relatively to the painting to be applied—the reflective and refrangible power possessed in an almost maximum degree by silvered glass, which need not detain us long after what has already been said. Bearing in mind the beautifying effect of light on colour when transmitted through them, it follows that *the painting should be as diaphanous as possible*, consistent with a truthful representation of Nature. Strange to say this principle has been little acted upon; and in our own day I have found trained decorators slower in apprehending it than some young students. Several of the former entertained strange misconceptions as to the "colour" of silvered glass, or of the "ground." One, misled probably by the term "silvering," said he thought the ground should be regarded as "silver, or equivalent to it;" and accordingly painted on the glass as he would on the metal, *i.e.* with thick opaque paint throughout. Another regarded the ground as a "low-toned gray," and therefore thought it necessary to render any shadows of flesh that should retire, of a hue to detach from a ground of that colour. The fallacies of such ideas will be instantly obvious if we open before a mirror a piece of yellow, red, or blue drapery; the "ground" will of course be a counterpart yellow, red, or blue. No, there is no ground in the ordinary technical sense. Rather daylight is the ground. For, so long as there is light in the painting room, it will be behind every brush-stroke; our eyes may not be at the right angle to see it; we may see instead only the reflection of a darkened room, or black coat, yet the light will be there all the same, and will vivify every one of those strokes.

Next, in reference to what was said (p. 36) in regard to the

polished surface of plate-glass (unapproached in smoothness by any other subjectile employed for painting upon), we have to determine how "texture" should be obtained thereon.

Now, some artists affect large-threaded canvas thinly primed; others spread all over their canvas a thick couch of white-lead with a coarse hog-brush, the object in both cases being to get "texture," and secure "light within," by operations subsequent to the first painting, such as scraping more or less down to the canvas threads, or brush-marks of the white-lead ground, till the required texture or light be recovered. Such expedients, however, are not seldom employed so as to produce objectionable results. They were not deemed necessary by the early Flemish masters, as already said or implied; and some of the early and greatest Italian masters, who spread *terra-verte*, or other dark colour as a ground, made no preparation for texture, and scarcely sought for it after. Other Italian masters, particularly the Venetians, paid more attention to surface by painting more thickly, or with *impasto*, in the lights (where texture is mostly or only seen in Nature), while *luce d'entro*, the "light within" was obtained by painting in a sufficiently light key to admit of final glazes.

A passage of painting scraped to show the threads of the canvas, or strokes of the brush, is apt to have a meagre effect, and so betray that it has been produced by a mechanical artifice. The prevalent use of a priming of roughly spread white (which, by the way, often cracks) is one of the principal causes of the "paintiness," and stony hardness of many pictures of the recent English school. Painters, who by scraping down to a preparation designed for the purpose, seek to reproduce the texture now seen in some old pictures, in reality but copy, mostly, the abrasions of the restorer.

It is then evident that to obtain all the texture desirable, the mirror painter has only to use the requisite body of paint to express relief, leaving the colouring to be strengthened or matched by glazing, like the Venetians; or to use *impasto* of the required colour, as nearly as may be, at once. And in neither case is he precluded from indulging in some strictly judicious scraping of the lights (preferably near the finish), whether they have been glazed or not.

Lastly, in reference to the reflections from the silvered glass of natural objects around the painting, the influence of which has been discussed (p. 21), we have to elect how much of the plate should be left untouched; or what is the same thing, how much painting should be put on it. A hard-and-fast rule for this it is impossible to prescribe. If a mirror or looking-glass has to serve as such, great care must be taken not to encroach on the part of its area needed for reflection. But, if the silvered glass be taken simply as a ground for decoration, the taste of the artist will be the only measure for the quantity of the painting. I use the word "ground" here, as I did at first, in its general acceptation, not in the more technical sense as defined in any later remarks. *Au reste*, the quantity and disposition of the decoration will receive attention when we come to the subject of "composition" in a proximate chapter.

To sum up as regards the theory of the art, the principal proposition that I take to be established is that as the background, so to speak, of a mirror painting must be formed of illusive reflections of natural objects, so should the painting be an illusive reflection, *i.e.* representation of such objects. But to be this it must be *fine art*, though decoratively applied; the only difference being that it has to dispense with a *painted* background; "fine art," that is to say of imitative character, and not so ideal, or merely

suggestive that the objects depicted do not appear real. The illusiveness I have so often attributed to mirror painting is, it is true, frequently due partly to its peculiar situation; but of course it also depends essentially upon the truth of the painting itself.

The word "illusion" thus restricted to painting that happens to be on a mirror, is however, if rightly understood, equally applicable to successful imitative painting on any material. Illusion should not be confounded with deception, though it often is so. Mere optical deception is not the aim of any true artist. But we may, we should indulge to the full the impressions of a painter's illusions; because we preserve the controlling consciousness of a basis of fact, otherwise it would be a complete hallucination. And, what harm is there if an artist places work illusively true on a surface where it will seem still more illusive? We must never forget there are two factors to such illusion—the painting and the spectator. An artistically untaught beholder may find a painting on a mirror by a tyro surprisingly deceptive, as he might find a still-life piece on canvas no less so; albeit of but a low order of mechanical mimicry. And the pleasure such beholder would derive would hurt nobody. Yet a trained artist would find both performances obviously false to Nature. On the other hand, such imitation as Mr. Alma Tadema's rendering of marble, and some of the *nature morte* of the French school, are illusive to eyes and minds the most refined and cultured. And to these might be added a few mirror pictures. Surely all great artists sought illusive truth of representation, whatsoever the subject chosen, howsoever diverse the means adopted. *

* I hope shortly to publish a book on "Illusions in Art."

## CHAPTER VII.

### PRACTICE: GENERAL TREATMENT.

IT follows from what has been said that all painting on silvered glass should be considered as strictly fine art, notwithstanding its decorative application. That is to say it is fine art—regarding fine art within its province of imitation and representation; and these so truthful as to bear, as well as may be, being placed in juxtaposition with the mirror's reflection of the reality. Our art, then, is *realistic fine art.* Therefore we have now a guide as to what treatment to adopt, what to reject.

But there are, I suspect, some misconceptions current as to realistic fine art. Like "illusion," the word "realism" has a good and a bad acceptation. The word "literalism" would be more to the purpose when imitation is limited to what is obvious to prosaic vision merely. I conceive that —in a wide and liberal acceptation—realism may be understood as not only implying a truthful and sincere rendering of Nature, but which does not forbid such modification by "style" or poetic feeling as falls well short of an aspect of unreality. And I submit that a true realistic representation must record all the most essential artistic elements of natural appearances in their due relative importance, otherwise it will be impossible to define the

boundaries between realism and idealism. The best models should be chosen for such worthy realistic representation; and it will occupy the student many long years before he can reasonably attempt ideal or imaginative modifications, and rearrangements of elements of reality that he must have first perfectly mastered. Meanwhile, I strongly advise him to be content—

"To hold as 'twere the mirror up to nature."

True artistic imagination is extremely rare in contemporary art, for reasons it would be hardly in place here to inquire into. Mere fancies and conceits take its place, not seldom. But let me say to the young artist, by way of warning, that attempts at lofty poetic flight sometimes fail from inability to describe simple facts in clear, grammatical lowly prose. And for his comfort let me add that art has its own specialized imagination, poetry, and ideality, residing solely within the manner in which the work is done, and that much of this is within the reach of, rightly understood, the realistic painter, paradoxical as it may seem. Ideas affording poetic pleasure, or awaking literary and other refining associations, are of course as welcome as they are rare in pictures; yet the colour of Titian, the touch of Velasquez, and the *chiaroscuro* of Rembrandt will outweigh them all. In short, let the young artist be assured that he will find fullest scope for fitting ambition in following the infinite beauty of his great exemplar, Nature.

But, *revenons à nos moutons*, or rather our mirrors. A realistic treatment being, then, necessary, mirror painting, although nothing is more embellishing, can in practice have little in common with "decoration" in its present signification. Decoration proper (or improper) nowadays, scorns the "real," although it claims, in terms sometimes un-

reasonable if not canting, that its materials shall be real. But it is no unjust disparagement of decoration to say that in all ages it has had some element of unreality. And I submit that this is the safest criterion by which to distinguish it from fine art, a question which has puzzled some good people, and even critics. On the element of unreality insensibly creeping in, or on it being voluntarily resigned, an allowance had to be begged; a convention had to be tacitly arranged between artist and spectator, hence all decorative art is conventional, more or less.

The truth of this assumption might, I imagine, be proved by the history of fine and decorative art from their common origin in the caves of the paleolithic, or old stone, age, when the artist of the period scratched imitations of animals on bone and horn. A succession of geniuses would from time to time go direct to Nature, getting closer and closer, more and more realistic, until at length they achieved such triumphs of imitation as the encaustic tablet of antiquity, and the picture of to-day—until Apelles and Nicias, Millais and Meissonier appeared on the scene. Thus fine art came to help create, and to crown our civilization.

But each successive genius would find admirers who, however, would be content to copy what they were unable to rival independently; this the savages would do in hours of leisure, when the cave larder was full; and the copies they would employ for the adornment of pouch and belt and person. As time went on, and the building art was born, the imitations of Nature, but more often reproductions of them, would be applied—modified frequently to adapt them to the embellishment of house and home. But even within the historic periods curious phenomena occurred. During the successive intervals between the advent of the great realists the copies became less and less like Nature.

They underwent processes not very dissimilar to these we now dignify with the fine names of "conventionalization," "generalization," "idealization," "typical-rendering," and "flat-treatment." At intervals of one or more centuries the forms were fixed to a traditional type. But by-and-by all symbolical meaning became lost, and the forms were gradually modified into simple patterns varying from the Greek, to the *rococo*. Indeed, a large proportion of the patterns of decoration, even the most conventional, have been distinctly traced to imitation of natural objects. The process went on in various directions until the original forms were converted into hieroglyphics; and finally into letters of the alphabet. Through nearly all these adaptations of imitative art a paramount object has usually been to decorate surface; hence we called art so "applied," decorative art.

The question arises, then, should we employ mirror painting, or, in the first instance the mirror itself, for a decorative purpose; seeing that in effect it effaces surface, and structure behind it more completely than is possible by other means? Well, no doubt there are many situations to which it is desirable to apply only decoration that will acknowledge surface, as such, and not so completely deny it. The aim may then be simply to convey sensory pleasure to the eye by means of the fair forms suggested and lovely tints presented on the surface. But, though this pleasure may reach a high degree of intensity and refinement, we should always remember that it does not reach the higher faculties, perceptive, emotional, and poetic, from which the representation or interpretation of Nature may win response. When one or the other of these rival claimants should be employed must be decided by common sense and good taste.

On the one hand the *doctrinaire* will contend that surface

must always be palpably acknowledged; and to this end he recommends the flattest of "flat-treatment." But this principle, if carried out, would proscribe Fine Art from its noblest function—monumental painting; and banish the *stanze* frescoes of Raphael, the Sistine ceiling of Michael Angelo, the great works, decoratively applied, of Paul Veronese, Tintoretto and Titian; and indeed "pictures" of all kinds. More than this if the principle of flat-treatment were carried to its rigidly logical conclusion, painted decoration would be limited to the outlines of figures and objects; decorative artists would be permitted only an infantine condition of mind, and their art would be thrown back to the stage of the earliest Greek vase, or the Egyptian hieroglyphic, or to the savage ornamenting his club, and tattooing his skin.

On the other hand the artist, and lover of art, will declare that the retention of an appearance of surface is often unimportant; aye, that it is sometimes desirable to obliterate its appearance as much as possible; that an historical monument, public building, or dwelling-house may be regarded as a shrine or casket—in wall or panel, frame or niche; and, also, that beautiful objects may be made more beautiful, and precious beyond the reach of flat decoration, by borrowing from fine art, without danger of surface or structure being misunderstood.

I have dwelt somewhat upon the questions that have arisen in this chapter, because a sort of superstitious importance seems to be attached to the specious Shibboleths of modern theorists and professional decorators, which is exceedingly inimical not alone to the mirror painter but to the employment of fine art generally. The aim of these theorists would appear to be to separate fine and decorative art more widely asunder, instead of reconciling them—even

to render the latter the mistress, instead of the handmaiden of the former. To the principles of these theorists we owe the substitution of a great deal of mere mechanical work for artistic design, and such principles induce some to undertake so-called decorative designing who have never learnt the first rudiments of art. Certain it is that the old masters never dreamt of a flat conventional treatment for decoration. Their frescoes have a flat effect simply because the colours that could be used with lime had little force. Neither such treatment, nor the conventionalizing of floral forms, as practised in recent years, was adopted by Paul Veronese, and the other great Italians. The arabesques of Raphael were, as to treatment, borrowed from remains of ancient wall painting; but they are all full of realistic modelling. And all the historical examples of painted mirrors, so far as I know, are in style realistic, though not always carried far enough in this direction, to my mind.

I should add that a realistic treatment of mirror painting gains from, yet does not seem to injure, a flat treatment of wall painting, when the two are brought into juxtaposition. Contrast heightens the distinctive characteristics of each, and each seems to elucidate the intention of the other. While, too, retaining a realistic treatment you may always contrive that the mirror painting shall accord with the style of the room—by choice of subject, disposal of the masses, direction of the lines, and, last not least, by choice of colour.

To conclude, it is, then, for every consideration, the duty, as it is the privilege of the mirror painter to imitate Nature, as truly, as really as possible, by means of effective lighting, and pronounced shadows (the more especially as you have no background on which to project "cast shadows"); by colouring to the pitch of Nature, and every other quality that contributes to *vraisemblance.*

## CHAPTER VIII.

### PRACTICE IN DETAIL.

AT the risk of appearing trivial to the practised artist, I shall in this chapter resolutely endeavour to realise those difficulties, which, although of the smallest it may be in reality, are apt to discourage the beginner in every walk of art. The initial difficulties of mirror painting are indeed comparatively small; though no other kind of painting yields so immediately a pleasant result, even to the moderate ability that could hope for no great success in more beaten tracks. Let me, however, caution the novice that in no department of art is there a royal road to excellence. Much may be done for the student of art generally; years of little fruitful labour, and ultimate disappointment may be spared him; yet upon his own teachableness, intelligence, and perseverance, success will mainly depend. Moreover, the very ease with which the rudiments of an art may be acquired sometimes render the danger greater of accepting and starting upon wrong principles, and contracting habits difficult to correct, or conquer. In this, as indeed in all kinds of painting, and as with the piano, a beginner, unaided or having an incompetent teacher, may adopt a wrong method difficult to disuse, or a bad style that may cling to him through life.

Assuming, then, that the student has but little or no acquaintance with painting, he may take as his first subject a simple "study" of a flower with a few leaves. If timid he may trace the outlines of the study in the usual way on tracing-paper, with a rather hard lead pencil. But for transferring the outlines to the mirror red transfer-paper not too oily should be used—never black tracing-paper, because this leaves a black ragged edge beneath the subsequent painting, that will be reflected from the silvering. Even in tracing something of drawing will be learnt; but if the student be more advanced he may rightly prefer to draw the outlines from the model directly on to the glass. For this purpose nothing hard and dry, like lead pencil, or the chalks used in ordinary drawing will "take" on the polished glass. But various softer adhesive substances are available. If the student's skill in draughtsmanship permits him to rely on a mere indication of the general contours, "whitening" may be used—lightly brushing off any superfluous deposit of it. Should more accurately detailed outlines be felt necessary, they may be drawn with soap hardened by age, or wax cut to a point, or French chalk (which is sold enclosed in cedar as a pencil), but this must be soft enough to be easily manageable. As little soap, or wax, should be used as possible, for though they combine with the paint they may possibly do it some harm. Black outlines, particularly those rendered by lithographic chalk, are open to the same obvious objection as black transfer paper.

The brush itself, however, charged with paint may be employed to establish the outlines. It should be long in the hairs, approaching the "rigger" (so named because used by marine painters for the lines of rigging), seeing that a long-haired brush is more supple, and therefore

yields a sweeter, as well as a thinner line. By the way, these special capabilities of a long-haired brush should be borne in mind when we come to paint blades of grass, rushes, palms, and other objects of slender character with straight or curved edges. But only so much of the subject should be outlined with paint, as can be "laid in" (between the outlines), while the paint is wet, otherwise it may be difficult to unite the two couches of paint, and the outlines will be apt to appear "edgy." The outlines, or boundaries, of an object, may be easily reduced while the paint is wet, by pressing a rag tightly bound over the thumb round the edges; or by scraping off the edges of the paint when dry with a sharp blade. But it is important to avoid if possible having to increase the width of the object represented, when the paint is dry: only the application of very thick paint, in a third or fourth coat, will unite the first and second outlines passably. In the case of having to copy a painting on transparent glass, whether to be or not to be silvered afterwards, you may, of course, simply put the painting behind the glass, and trace it.

As the student advances he will be able to dispense advantageously with outlines in many cases. Remember that there are no outlines, only boundaries in Nature. Owing, however, to the trouble of making alterations on glass, and the importance of avoiding the opacity that results from over-painting, it is desirable, when having to execute a difficult elaborate design, to prepare a coloured study or cartoon of the full size, which may then be traced.

I should here remark that in painting on a mirror, as in many other things, it is the *premier pas qui coûte.* The mirror being so illusive, and, consequently, the exact distance of its surface being hard to calculate, it is not easy to make the first few strokes of the brush with precision; while

the duplication of these strokes in their reflections from the silvering will further embarrass the eye, as the student who has drawn his subject will have already found. So soon, however, as a small space of the mirror is covered, the eye will thereafter readily measure the distance of the surface of the glass; and as the attention becomes concentrated on the painting, the perception will quickly become insensible to the reflections of the painting. In order to see these reflections as little as possible, the part of the mirror that is being painted on should be at a right angle to the eyes. The artist should also sit or stand in an unconstrained position well away from his work, and hold his brush very lightly, at a considerable distance from the point (unless for very minute work); in order at once to see the effect of his work as a whole; to execute long strokes without break, and generally to obtain the freedom of handling specially desirable in mirror painting.

For very long strokes the flexion of the arm should be from the shoulder only. The flexion of the finger and thumb alone has but a short radius, and therefore admits only of a short stroke. For outlines, and breadths generally, the stroke should be delivered with the brush held diagonally to the glass, commencing lightly, and lifting the brush from the glass deftly at the finish, if you wish to graduate the stroke and would avoid leaving a little heap of paint at each end of the stroke. But for "loading" the high lights, the paint, shovelled up, so to speak, on the point of the brush, must be deposited with the brush held more nearly at a right angle to the glass, and with the utmost precision, and decision. For covering broad spaces, and also, sometimes, for blending the colours, it will be found more advantageous to hold the brush resting on two fingers with the nails downwards.

The first painting, laying in, or dead colouring, should be simple and broad. The "middle tints" should mostly be sought for—leaving the high lights, the deepest darks, the full strength of colour, and the details for a second, or later painting. Close to the outlines, however, the paint should be from the first mixed to match, as nearly as you can make it, the hue and tone or strength of the object imitated; otherwise the false colouring (which, when dry will be unaffected by the after painting) will be reflected from the silvering at the back around the true final colouring.

In order to preserve the precious light within, it is important that the first painting should be thin; that is, the opaque or semi-opaque colour should be spread thinly in the half-tints. The shadows, also, should be painted thinly, but, to the transparent colours generally employed for shadows, a little opaque colour should be added. If this be not done, when the light falls on the shadowed side of the picture, too much light will be reflected from the silvering through the shadows.

This thin painting will hold well the thicker paint that may have to be added to the lights, and to secure the texture of the objects depicted. The lights, and textures may be painted as solidly as you please, in reason; because solid painting does not depend for effect on a light ground; and the hard appearance of opaque colour will by contrast enhance the soft effect of the transparent passages. In art, as Mr. Browning says—"Things save by their opposites, appear not." To spread an opaque colour thinly and evenly, however, it is necessary that the paint should be worked into a proper consistency in the brush, on the palette before touching the glass. If the brush be too moist through excess of medium, the paint will be deposited in flowing ridges; if the brush be too dry, the paint will be

left in harsh streaks, and the brush will be apt to slip on the glass. To avoid these faults the brush should first be well moistened, then squeezed tightly in a rag held with finger and thumb which will remove superfluous moisture; after this, for working, a very small quantity of medium will be necessary. Only a very moderate amount of paint, also (except for loading the lights as already directed), should be taken up in the brush, and this should be worked well on the palette, finishing by rolling the brush between finger and thumb, to discharge any superfluity. In applying the paint the brush should be pressed softly on the glass so as to allow the hair to spread, whereby the paint will be deposited broadly, and therefore thinly. Should the brush be found too freely charged with paint it should be again squeezed in a rag.

It will probably be often found desirable to reduce the quantity of paint on the glass, instead of adding to it. This may be effected (and the drawing and modelling improved at the same time) with a dry brush, squeezing it clean frequently. But there are no modelling tools, as there are no brushes that can be used for glazing, to compare with the soft under parts of the thumb and finger ends; and, for a large space the palm of the hand. Titian is recorded to have used thumb, and finger, and palm, more than his brushes, after the first laying in. Do not be afraid of any "muddle" you may produce by these operations; the chances are that you may draw from the accidents of the embroilment some happy unforeseen effect—even snatch, so to speak, a grace beyond the reach of art. And any stray stroke beyond the outline may easily be scraped or rubbed off when the paint has become dry, but has not had time to become very hard.

In the case of transparent colours (which have a tendency

to be streaky) the brush should be passed very lightly over the streaks, at right angles to them, supporting the brush between two fingers by its weight merely as already indicated. Those parts also of the subject which demand the use of transparent colours, should be painted first. All these colours, particularly the madders, are slow drying, and can rarely be applied to the full strength required at once. Moreover it is important that each coat of transparent colour be applied thinly, and be perfectly dry before another is laid, in order (as Dr. Liebreich rightly insists) to prevent the risk of cracking, a risk, however, that is greatly reduced on glass, where the possible contraction, and expansion is small.

I must beg particular attention to the fact that if a warm colour be used thickly in the lights, and then used thinly for the half-tints it will acquire coolness in more marked degree than on any other material, and at the same time a beautiful, soft, lambent unitone impossible to obtain by the most subtle combinations of colour applied to any other surface than that of a mirror. The student will soon find that this property of cooling, and illumining colour in the degree that it is thinned, greatly facilitates modelling on the one hand, and on the other the obtaining delicate half-tints such as those seen in flowers, and atmospheric tints on all objects.

But, please observe closely that the cooling of the colour is most visible where the colour is at some little distance from the outline on the side on which the light falls. And the cooling will appear in a faintly defined boundary within the outline if the paint be very thin and the mirror be lighted obliquely. The cause of this hardly needs mention, though the effect should not be forgotten. The cooling of the colour shifts aside from or towards the outline accord-

ing to the degree of obliquity of the lighting, this cooling arising simply from the shadow cast by the painting on to the silvering behind thus lessening its power of reflecting through the colour in front.

The effect, I need not say, may be observable in the painting either on the side represented as lighted, or on the side represented as shadowed, according to the side on which the actual light falls. If the light falls on the side it is represented in the painting to fall, the effects will seldom be perceptible otherwise than as helping the artist's intention; the band of colour that is more brightly illumined by uninterrupted reflection from the silvering being on the side of the artist's lights it will obviously help to render his representation more illusive. If, however, the mirror is placed so that the light comes from the side of the painted shadows the effect will again rarely be objectionable, and may be advantageous; because it will resemble reflexes from neighbouring objects, into the shadowed parts of those represented. Should, however, the effect under notice appear disadvantageously in any part, it can be effaced immediately by applying a little more paint.

There is little to add to what has already been suggested as to the kind of "handling" or execution desirable. Evidently laboured execution would be little compatible with the brilliant aspect of a mirror, and little in keeping with the gay and fanciful subjects naturally selected for its decoration. For reasons indicated mirror-painting is the best possible exercise in handling; as for other indicated reasons, it is an excellent discipline in colouring.

Before concluding the laying in, it should be revised as a whole while still wet. Superfluous paint should be removed, and the modelling corrected or blended as indicated already. If the edges appear ragged, a brush should be passed lightly

but decisively along their whole length; or a rag used, as before directed. And be careful to note and reduce any exaggeration in the work, for many young artists have a tendency towards this fault. They seize on salient points, and unconsciously render them too conspicuous; the masses they magnify, every peculiarity of character or detail they accent more strongly; the result being necessarily more or less a caricature.

For general purposes, particularly for all laying in, correcting the modelling, or reducing the paint, sable brushes, mostly flat must be used. But in final operations, for obtaining texture, and heightening the lights, hog tools will sometimes be found useful, especially in large work.

## CHAPTER IX.

### PRACTICE—SELECTION—COMPOSITION.

ONCE the portion of the glass to be painted upon is covered, as directed in the last chapter, the technical procedure so much depends on the student's observation, personal feeling, and taste, and is so very similar to that of oil painting on other materials that I may consider my duty in this direction virtually at an end. It seems, however, desirable to give further consideration to the kind of subjects the mirror painter should select.

The range for selection is practically boundless, but a young artist cannot be too modest in his choice. To avoid discouragement, his first attempts should be confined to the simplest flowers, those large in their parts, and not complex in their structure; such as the arum, and water-lily, the primrose, the wild rose, the poppy, the iris. Then he may cull other wild flowers from the field, and the hedgerow; some are not easy, but all are welcome by reason of their associations. And some of Nature's sweetest contrasts will be found in grouping primroses and violets, lilies of the valley, pansies, and forget-me-nots, buttercups, daisies, corn-flowers, and poppies, together with flowering grasses—"pampas grass" being one of the most effective. Then there are the wild hyacinth and daffodil, the anemone and

foxglove, the hawthorn, eglantine, and convolvulus, with the blossoms snowy and pink of the apple, peach, cherry, and other fruit trees. What ample resources for decoration are there not in the golden shower of the laburnum, the purple clusters of the lilac and wistaria, the pendent jewel-like fuchsia, the fairy-like campanula; and the tangled festoons of the clematis, purple or white, and of the passion-flower, purple or red; not forgetting its golden orange seed-pods.

As you proceed, all the beauties of the garden, with the countless varieties of the queen of flowers and the treasures of the conservatory will be at your service—orchids, begonias, cacti, and a thousand exotics from the broad belt of the tropics that girdle the globe. Then autumn will bring you the hardly less decorative vine, laden with its luscious grapes, purple and amber; and innumerable fruits in every hue of glowing colour, to which you may add drinking vessels of gleaming gold and resplendent silver.

Flower (and fruit) painting is most absurdly and mischievously neglected and depreciated in the English Schools. It was not so in any school that has developed fine colourists. It was not so in the Netherlands—witness the example of Rubens, his friend Snyders, and many Dutch painters. It was not so in Italy, as proved by Titian and other Venetians. It is not so in the modern French School, as may be abundantly seen in every year's Paris salon or salons. There are few artists not professedly flower painters that would not be benefited by a course of flower painting. That the study of flowers is the best and shortest way to become a colourist, is almost too evident to need discussion. Nor is it needful to add that a knowledge of botany will help the flower painter to understand, and therefore represent, more truly the characteristics of flowers. Truth is great and will prevail.

For reasons already given subjects with water are very eligible. The favourite resorts of the student may well be streams with sighing rushes and sedges, whereon float the "snows of the lolling lily;" haunts of the heron or stork; where glances the kingfisher, and where skims the swallow. The sea, also, and the animal kingdom are open to him; while birds and butterflies offer special recommendation, as already indicated (p. 31).

Lastly, when sufficiently advanced, you will introduce the human figure—often for allegorical purposes—sometimes, may be, for grotesques, possibly even for *diableries*; freaks of fancy, believe me, will be more readily tolerated on a mirror than elsewhere. Probably, however, your fancy will prefer to soar to the more rarefied region of the Cupids and the Genii; or to hark back to the far-off, fading, fairyland of childhood.

The mention of cupids, with whom we may associate their angelic congeners, the cherubs, will remind you that the little creatures have been the vehicle of a thousand poetical and pretty fancies. What great names in art do they not recall? Raphael, Michael Angelo, Leonardo da Vinci, Titian, Veronese, Correggio, Rubens, Vandyke, Murillo, Fiammingo, Albani, Boucher, Reynolds, and how many more? Why are the Loves banished from English soil? Why, now, do we paint nothing but prose? Let us decoy them back, and paint them on the mirror, where they will seem, more than they could on anything else, to be disporting themselves in mid-air.

Now comes the question, what to do with the material? How to arrange, or compose it?—one of the most difficult problems in art. Taste in composition seems almost as intuitive as the sense of colour. A Capri girl will dispose her rags, so far as their scant length permits, like a Greek

statue. Some ladies select and arrange their dress—well, in a way that could not be painted. I recommend a young artist to be content to select his models carefully, and not attempt to compose till long experience and comparison have taught him, as no rules will, how to do so. Nature's arrangement is sometimes perfect for pictorial purposes, and rarely is it that she does not afford valuable precedents for at least some details of composition. Nevertheless—and I would lay stress on the remark—composition is one of the most human, artistic, and poetical elements of a painting. Two artists endowed with equal powers of imitation, but one possessed with the composer's faculty, and the other devoid of it, will produce from the same model the one a beautiful picture, the other a mere mechanical study.

You must not, then, suppose that you may always execute your work in the Chinese and Japanese fashion, oblivious of composition, perspective and probability, and so that it shall appear to have lighted on the surface by pure accident. Often, doubtless, an agreeable naïve surprise (though often a sense of awkwardness) is thus produced to the European eye, looking for relations of symmetry, proportion, and rhythm. But the surprise is due mainly to the Oriental decorator's ignorance; and, in any case, is one of the lowest æsthetic emotions. It is in the same rank with feelings of astonishment at precise mechanical skill, or facile manual dexterity; both of which the Japanese artist, or artificer evidently aims to produce. But for the sake of comparison place a Greek engraved gem, or a cinque-cento jewel of goldsmith's work with enamelled figures, or an ornamental detail painted by Holbein, or Albert Durer, beside a piece of Japanese ornamentation, or decoration, and you will find, I think, that the Occidental artist equals

the Oriental artificer on his own ground, while there is a world of artistic knowledge to credit to the former that the latter does not possess.

As it is often imperative to compose even the simplest materials, I offer a few observations upon the rudimentary principles of composition. I may preface these with the hint that it is more convenient to try diverse or alternative arrangements in sketches on paper, or canvas than on glass.

Now, the mind is ever alert to recognise—and it does so with a sense of harmony—the proportionate parts, or divisions into which a surface or object is divided—especially middle lines down, and across; but also (if in a diminishing ratio) thirds, quarters, fifths, and so on. The minor proportions, bear in mind, are far from unimportant. On the contrary the symmetry and rhythm obtained by the minor proportional divisions being more delicate, and the means by which those effects are yielded being less palpable, the discovery of them affords a pleasure that is correspondingly refined, and that seems to flatter our conscious sensibility and penetration. This truth must have been well known too, or felt by the Greek architect, and potter. So, therefore, it happens that any object (or part of that object) acquires harmonious relations, and conspicuousness individually, in the degree that it is painted on the centre, or proportionate division of the glass, or canvas. Consequently you have a rule for obtaining both a harmonious, i.e. proportionate arrangement, and emphasis of position for the subject, and any element of it to which you may wish to give those properties. In generally close obedience to this rule, the decorator, and architect, working in the usual "styles"—even the Gothic—constructs the skeleton at least, of his design.

But, except in crystallizations, and a few other cases,

Nature does not work obviously according to proportional laws: her operations are infinitely complex; and apparently full of accidents. Yet through all we feel, though we may not always trace, laws of order, proportion, rhythm. All this—the whole truth as regards Nature—is recognized in the so-called naturalistic or realistic style of decoration which merges into fine art. In all painting imitative of Nature, therefore, if a proportional arrangement is too evident, the result will be apt to appear conventional, formal, vacuous; if absent altogether, we shall have a vulgar, soulless, hap-hazard agglomeration, but if present yet not apparent, the work will possess order and fitness, with the surprise of picturesqueness.

You may then adopt more or less the proportional divisions of the conventionalist, but only to play around them. You will seek everywhere unity in diversity, or *vice-versâ*—a central melody with variations or orchestral accompaniment. If, for instance, you wish to give prominence to the principal mass of a composition that must be approximately central, it should be placed partially or nearly, but not wholly and exactly on the principal imaginary lines vertical or horizontal. This mass may be echoed, not repeated; but secondary masses must not be equidistant, nor must they form any regular geometrical figure, as a triangle or square. Yet, when you wish to conduct the eye to some point of paramount interest, a nearer approach to exact repetition will be serviceable to that end. In the case of vistas the open space is, so to speak, the principal mass, therefore, the intersection of the supposititious middle lines is the most important point to keep clear. These conditions are of course reversed again if a figure is to be your principal subject; but in this as in all cases you must not allow yourself to be bound hand and foot by any rule. In a

portrait, for instance, if the head is to be turned right or left, it must be carried more or less in the opposite direction relatively to the middle line downwards; otherwise it will appear to be protruded and not to have sufficient space before it to breathe and look out.

This reminds me that besides blended sensations of proportion and surprise, many other considerations will have weight with the intelligent composer. He will feel, for example, that the principal mass besides being in the most conspicuous place should be of a dominant colour and in the fullest light if it is to have—as without some special reason it should have—the fullest value. Under all conditions the various kinds of growth must have their appropriate character; a pendent growth must seem well supported from the top; an upward, from the bottom. Yet—taking this last case—the means ever vary: with all respect for the traditional pyramidical composition, and with due recognition of the sense of support and repose that a broad base will give to your superstructure; you *must* hold up a tree by its trunk; while a spreading palm you will have to sustain by the clean curves expressive of energy in the spring of its slender stem. Expression, therefore, as well as character, should play a very important part in your composition.

Further, to secure expression, you will be very careful to duly accentuate the lines of growth and construction; and if possible, still more careful to secure the lines that indicate movement and its own associated expression. These should have force and accent; but in the case of figures and objects in repose the lines should not be contorted, but, rather flowing and easy, so as to secure an expression of quiescence. Attention to the essential lines will serve also to keep the composition well together. As contributory to this end, it

is very important, that when any leading line disappears in one part, it should be accurately and distinctly taken up where it should reappear in another. Remember, also, that largeness of volume with little detail is impressive; while smallness of parts conveys ideas of delicacy, finish, intimity, etc.

To sum up, objects represented as isolated should have their intrinsic attributes fully displayed; together with the affinities their parts may possess; and associated objects must be grouped to have affinities of subordination among themselves. Then, everything must be done without crowding, or confusion, so that the work may be distinctly seen. And it must be executed in harmonious relation to its destination, if this be known. Above all, I would add at the risk of repetition, the mirror painter must avoid formality. To be in keeping with the accidental reflections and illusions of the mirror he must conceal the means by which he obtains pictorial harmony. The design in so gay an art should present many surprises; it should be everywhere *amusant* as the French say; it should seem to have found its way to the glass without manifest intention as without apparent labour.*

* I may mention here a little matter, *viz.*, that mirror painters sometimes continue a small part of the subject on to the frame—a licence, no doubt; but in so playful an art it may perhaps be pardoned.

## CHAPTER X.

### MATERIALS, COLOURS AND MEDIUM.

IN the Preface I speak of problems which have puzzled artists time out of mind; and many of the most difficult of these relate to the materials of oil painting. Some of these problems may seem more formidable when oil painting is applied to glass, which, unlike canvas, absorbs no oils, or varnishes, nor any ingredients or properties of pigments that may possibly be deleterious. Nevertheless, some painting on glass has actually stood perfectly for centuries; and I am now satisfied that it should be more durable than on any other surface, if applied as I have directed, and with the precautions (now well known) dictated by modern chemical knowledge of mediums, varnishes, and pigments.

The defects of many old mirror pictures are due much less to the painting, than to the decay of the old mercurial silvering. The fact remains, however, that the reputation of the famous mirror painter, Mario di Fiori (see p. 26) was obscured even in his lifetime, through, it is recorded, his employment of some medium, which caused his colours to lose their first beauty. Of modern Italian mirror painting I can say from experience that it is not adapted to resist the effects of this climate. I may mention also that a mirror

painting done in London a few years back was submitted to me which had evidently changed colour to a great degree. On inquiring for a reason for this, I found that lead driers had been used freely; an oil medium had been mixed largely with a foreign *siccatif;* and that cheap German colours had been employed. Here, then, was an ample explanation. Some of the most beautiful colours requisite in flower painting—the madders for instance—cannot be durable, and low in price. To fulfil the latter condition they must be largely adulterated with fugitive lakes. Then, lead driers freely used will render transparent colours opaque; all driers, indeed are dangerous, sulphate of zinc (white copperas) being, I think, least so. Lastly, a considerable admixture of some foreign siccatifs would embrown the whole picture.

However, this and a few similar failures that came to my notice, together with an outcry raised about the same time regarding the alleged impurity of some pigments ordinarily sold, induced me to devote my best attention to procuring the purest possible pigments and a trustworthy medium. Accordingly I explored some of the most obscure parts of London in search of pigments in their crude state of a purity that should bear chemical analysis. Insuperable difficulties, however, met me in trying to obtain them out of the ordinary course of trade, some makers and importers flatly refusing to serve a private person. An application to the Salters Company elicited the reply that the company could not assist my search. My pigments, therefore, I resolved to procure indirectly. And to assure myself of their purity I induced an eminent firm of analytical chemists to make a series of experiments for me, which extended over eighteen months. I also arranged a laboratory in my own house. During these experiments I applied for certain information to a principal of one of the best known firms of

artists' colourmen in London. Having explained my object to him that gentleman received me in the most liberal manner; he conducted me over the whole of the large factory of the firm, and in a freely communicative way answered my queries. Here at all events were no trade secrets. Professor Church also kindly gave me advice, and recommended me to persevere.

But the outcome of all my Quixotic efforts was, I must confess, that when the pigments were finally tubed some of them in one respect or another, from causes beyond my control, proved not quite satisfactory; and, generally, my success seemed to me insufficient to compensate for all my trouble, to say nothing of a very heavy loss, some misrepresentation, and even vilification I had to endure. My adventures, and experiences in the quest of pure colours were so varied, long continued and in some respects curious, that I may venture to make them public elsewhere.

But I would say here—as the questions raised concerns the artistic profession generally—that the conclusions, to which I arrived are as follows: First, that the pigments sold by a few English artists' colourmen, and those the best known, are practically pure; and, if rightly used, they will prove as permanent as their intrinsic nature admits. That they are not intentionally adulterated I am convinced. Secondly, that the purity of pigments is necessarily relative; and not more than the highest standard of what is called "commercial purity" can reasonably be expected; seeing that to secure their absolute chemical purity—to eliminate for example every particle of non-colouring matter from an earth colour—would involve much expense without corresponding advantage. Thirdly, it is my conviction that if the Royal Academy, or the Government were to establish a laboratory for the manufacture, and manipulation of pig-

ments, the products would not compare more advantageously with those of private enterprise than do ships, or ordnance, or weapons. And if any appreciable degree of chemical purity were to be obtained the pigments could only be sold either at a loss, or at prices very few artists would be likely to pay.

For the purposes of the mirror painter, however, some of the pigments sold by the most trustworthy artists' colourmen are ground with too much oil, especially those prepared for exportation, which must have more oil to "keep" during a long voyage, or in a warm climate. This defect, however, may be removed in the usual way, by pressing the colour to be used from the tube on to white blotting-paper.

Bear in mind, too, the facts that some of the most beautiful colours—colours indispensable in flower painting—fade all too soon, like the flowers themselves if not "locked up" in varnish. On the other hand varnish has a yellowing effect proportionate to the quantity used; and if used in excess your pearly greys and pure blues will in time become light and dark greens.

As regards the Medium to be recommended, the quantity of oil in its composition (or used in any way) should be carefully limited. Linseed oil, the favourite oil with artists on account of its drying property, is known to turn semi-opaque, or "horny" with time; and of course, as oil is apt to become super-natant, the horniness is likely to become more apparent on glass, where, I repeat, there is no absorption. By an admixture of resinous ingredients, this tendency of the oil is believed to be partially counteracted; and the horniness must be proportionately diminished in any case. Turpentine is valuable as a diluent, like volatile oils generally; but does not "bind" the colours sufficiently, and

if used too freely the opaque colours will "rub up" if much friction be used in cleaning the picture.

The resinous ingredients in varnishes of the kinds—mastic for example—commonly mixed with oil to form a medium for oil painting have also properties which unfit them to serve as ingredients of a medium for painting on glass. Their soft nature would not bear much friction without betraying scratches; and, used largely, they would probably cause the colours to crack and put off. The addition of acetate, or sugar of lead to gelatinize a medium so compounded would be of no advantage to it and might be prejudicial to the colours.

The best solution of the problem thus presented I found in a medium containing comparatively little oil, and in which the required binding, protecting, and, so to speak, enamelling properties were supplied by the hard varnishes of amber and copal, thinned in the proportion required to bring them into working order by turpentine.

I found the mixture of these two preferable to either singly. Amber, the fossil resin, it seems to me, has not in equal degree the toughness (in contradistinction to brittleness) which its young congener copal possesses; although in scientific tables amber ranks in actual hardness above granite. Possibly, however, the particular copal varnish I employed had been prepared with an appreciable quantity of thickened oil. Oil while inspissating till it becomes quite dry in progressive degree acquires toughness, which it retains when dry longer than the resins, and balsams. It must not be supposed from what I have just said that amber varnish is in any appreciable degree wanting in toughness; but even if it were brittle this would not unfit it for application to glass, where the expansion and contraction are infinitesimal. By the way artists will find it a good means

of testing varnishes to spread a little of each on a window-pane, and, after leaving them exposed to sunlight and frost, examining them with the finger-nail.

However, my choice finally inclined to a medium with amber varnish as the most distinctive permanent ingredient. This medium allows freedom of execution, binds the colours, locks up those apt to fade, and dries rapidly enough to allow painting from day to day, except perhaps in the case of the madders, and these will dry in two or three days. The quicker the drying, be it remembered, the greater the danger, especially with the transparent colours, of cracking. I have also used the amber varnish as a varnish (see p. 37). The amber varnish I first employed was specially made for me; but that which is supplied by the foremost artists' colourmen answers perfectly well.* And the best copal varnish is a very good substitute. The medium and varnish I recommend must be the same or nearly akin to those employed by the early Flemish painters (see p. 37). The formula I adopted for ordinary purposes was 6 amber varnish, 4 copal, 4 linseed oil (the best procurable, and old), and 10 turpentine twice rectified; no separate drier is necessary, a little sulphate of zinc having been employed in the preparation of the first-named ingredients.

* Field, in his *Chromatography*, says, too hastily, as I am convinced, that amber varnish has been more reputed in painting than it merits; and he states that amber dries very slowly in solution owing to the succinic acid it contains. But a very high temperature is necessary to dissolve amber; and if the heat is sufficient, and properly regulated, the succinic acid flies off.

# PART III.

## Window Painting.

WE have already seen that painting in oil on transparent glass may be employed for the decoration of windows, instead of glass stained or painted, or stained and painted, with the usual enamel colours. And I have given some directions for this application of oil painting. Besides this, of course, much that has been said in preceding chapters applies in this mode of painting; therefore there is little to add regarding its practice. Before offering that little, a glance at the history of this application of painting—for it has a very ancient history—may be found interesting.

Vasari, then—who gives much attention to glass painting generally, though mirror painting was of course unknown to him—declares that the French and Flemish glass painters excelled in painting on glass with a varnish medium, as distinguished from enamelling on glass by means of fire. And he adds that it had been formerly the practice to paint the glass thinly with colours mixed merely in glutinous, or

other *tempera* vehicles, which he observes offered but a feeble resistance to the air and rain.

The "Magister Paulus," who executed the ancient altarpiece of St. Mark's, Venice, also painted in this manner some glass windows for the Frati Minori at Venice; and these were copied by a Maestro Marco, of the same order of Minor Franciscans and sent to Treviso.

The *auripetrum* and *pictura translucida* of the mediæval writers, Eraclius and Theophilus, had some analogy in principle, both with mirror and window painting, in so far that the colours were in the former relieved and vivified more or less by metallic foils; and for the latter the colours were transparent, or used transparently. As sufficient explanation here are recipes for the two kinds of work given by the monk Theophilus—oil painting, be it observed, as early as about the twelfth century, *i.e.* two hundred years before the Van Eycks' invention of oil painting, so called, but which would be more properly called varnish painting.

For *auripetrum*, then, Theophilus directs that tin-foil laid on wood, should first be varnished with oil thickened in the sun, and tinted yellow to serve as a lacker; then, "Take any colours which you wish to apply, grinding them carefully in linseed oil without water; and prepare tints for faces and draperies, as you did before in water colours; distinguishing according to your fancy, animals, birds, or foliage with their proper colours." As regards the *pictura translucida*, the same authority prescribes in these words: "There is also a kind of painting on wood which is called translucid, or by some golden; it is produced as follows: Take a sheet of tin-foil, not varnished nor tinged with yellow, but in its natural state, and carefully polished, and line on it the surface which you wish to paint. Then,

having varnished the foil, grind colours very finely with linseed oil, and spread them extremely thin with the brush; so let the work dry." By the way, is modern French *vernis-martin* in principle a survival or revival of, or evolution from these arts of the Middle Ages?

Among the few observations respecting the practice of window painting in oil colours I have yet to make is this, that a special easel is requisite. This may be rough, and very inexpensive, but it should be large, and constructed with legs at the sides, and in such a manner that no upright or cross-piece shall obstruct the light from behind, within a field as large as the largest coat of colour to be spread on the pane. With this proviso, sheets of glass much larger than the easel may be painted by shifting them on the easel from side to side as necessary. Small panes should be framed roughly with the top piece of the frame lengthened in order that it shall rest on the sides of the easel. The easel must be stood facing the light, but not facing the sky; a too vivid light being hurtful to the vision and perception of colour.

The colours to be employed are all those that are transparent in their nature; or that can be made so more or less by dilution with the medium, according to the requirements. Only a few pigments of the ordinary palette are not available, the exception being those so opaque that their utmost dilution yields but muddy tints. Experience alone will show the capabilities of the colours in this regard. For the windows of dwelling rooms the brighter colours should be very sparingly introduced; those of sober hue becoming quite sufficiently splendid owing to the greatly enhancing value of the light behind. For the medium I can recommend nothing better than that described in the last chapter.

As to the technical procedure or *modus operandi*, the most important point is to constantly remember to lay the colouring in washes or coats, so as to cover at once the whole of the space that should receive each particular tint, and hue. To enforce or deepen these where necessary, the wash or coat must be repeated till the required depth be obtained. The process closely resembles the tinting and washing of the early English painters in water colours. And it will be found that any attempt to "stipple," or otherwise to work in the manner of many modern painters in water colours will betray itself in blotchy, or granulous disfigurements. When a part is defective it should be scraped out to its boundaries, and painted *de novo*.

The window painting under consideration is of the same nature, and in the right hands may be made to closely resemble that which Gainsborough put on the slides that he introduced into the large wooden camera he had made, lighting his landscapes on the slides by candles placed behind them, and inviting his friends to look through the magnifying glass in front. Gainsborough was delighted with his ingenious device; and when the peep-show, just as originally worked, was exhibited at the Grosvenor Gallery a few years back, everybody was surprised and charmed. The painting of these slides may remind us of that applied to the tinting of slides for the magic-lantern or stereopticon; but of course in the latter the photographer usually supplies the subject, drawing, and light and shade. Directions for painting the modern slides are given in the manual by Mr. Edward Groom, "The Art of Transparent Painting on Glass" (Winsor and Newton). The window painting I am describing, however, is calculated to be seen by daylight, not with any kind of artificial light behind it; yet when lighted by the latter at night it has an admirable effect.

The possibility of producing something acceptable in this description of painting seemed to me greater when I had found the medium for mirror painting I have described. With a trustworthy medium I felt it would be a great boon if window decorations and "pictures" virtually, could be produced by a kind of painting allowing a much wider range of colouring, and technically much easier to master than painting with the usual enamel colours; and that would enable the artist to dispense with these colours; as also "pot-metal" or stained colours. For thus at once would be removed the risks of firing, and the embarrassing changes of the colours under heat, together with the necessity of "leading," and the disadvantages it entails of almost compelling a highly conventional treatment, and of giving something of a prison-like aspect to a dwelling room. Window painting would be liberated from its shackles, and would become a branch of fine art. Sheets of plate-glass as large as you like could be employed. On these veritable pictures (within the proper conditions of transmitted light), not mere arbitrary decorations, could be consistently executed. And any amount of elaboration thought desirable could be bestowed.

Seeing that as much or as little as you like could be put on a plate, the outlook might be obstructed but little; or, if unsightly, it might be practically obliterated; and in all cases an additional charm of prospect might be interposed. How pleasant sitting in a London drawing-room, dining-room, or library, for the eye to rest on woodland or meadow, lake or mountain; or a tangle of flowers and hanging vines; or to glide along the Grand Canal, Venice, or pass down some dim, and long-drawn aisle!

I confess I met with obstacles in this so long disused path; yet if some of my readers will strike into it with

energy and perseverance I believe they need not be alarmed at the difficulties they will meet. Fairly permanent window pictures in oil have been produced. Among the earliest was a series of six, painted about six years ago for the lower sashes of so many windows on the ground-floor of a well-known mansion in the West End. It would not be easy to submit works of the kind to more severe tests; because the aspect of the house being due south, they have been fully exposed to the fierce sunlight of two exceptionally hot summers, and the frosts of winters, one at least of which was exceptionally cold. From the cold, however, there is nothing to fear; a "Blizzard," with a big B will make no impression, if the painting be rightly done. But direct sunlight, sending the thermometer up to 120°, is apt to leave its mark. When I last saw these pictures, one of the yellows (used in a border only and by way of experiment) had cracked somewhat—gamboge in fact, so this otherwise useful pigment must not be used, unless in a more sheltered situation. Some other bright colours of vegetable origin had probably also faded; but this, I submit, is an advantage, because brilliant colours in a window too much reduce the value of other colours in a room lighted by that window. I may likewise cite a large window in a landing alcove of another West-end house painted with Pompeiian subjects, about five years back. This has stood perfectly, I believe, its situation being protected.

I must be content to have thus indicated the way to what I feel assured would prove a field for decorative, and fine art, as important as it is new. But the artist should remember in his own interest that translucent painting, as before intimated, is a long and laborious process, if he would arrive at a finished picture, and also that it is apt to be injurious to the eye-sight.

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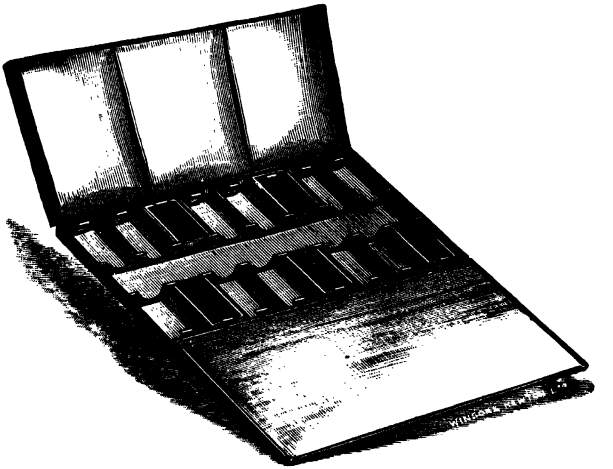

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| 3 Whole Pan Box | 0 | 6 | 6 | 0 | 3 | 0 |
| 4 ,, ,, ,, | 0 | 8 | 3 | 0 | 3 | 6 |
| 6 ,, ,, ,, | 0 | 10 | 3 | 0 | 3 | 9 |
| 8 ,, ,, ,, | 0 | 13 | 6 | 0 | 4 | 0 |
| 10 ,, ,, ,, | 0 | 16 | 0 | 0 | 5 | 0 |
| 12 ,, ,, ,, | 0 | 18 | 6 | 0 | 5 | 3 |
| 14 ,, ,, ,, | 1 | 1 | 9 | 0 | 5 | 6 |
| 16 ,, ,, ,, | 1 | 7 | 0 | 0 | 6 | 0 |
| 18 ,, ,, ,, | 1 | 10 | 6 | 0 | 6 | 6 |
| 20 ,, ,, ,, | 1 | 13 | 0 | 0 | 6 | 9 |
| 24 ,, ,, ,, | 2 | 2 | 0 | 0 | 7 | 6 |

IN HALF PANS.

| | | | Without Colours. | | |
|---|---|---|---|---|---|
| | £ | s. | d. | £ | s. | d. |
| 6 Half Pan Box ... ... ... ... ... | 0 | 6 | 9 | 0 | 3 | 6 |
| 8 ,, ,, ,, ... ... ... ... .. | 0 | 8 | 6 | 0 | 3 | 9 |
| 10 ,, ,, ,, ... ... ... . ... | 0 | 10 | 0 | 0 | 4 | 6 |
| 12 ,, ,, ,, ... ... ... ... ... | 0 | 11 | 9 | 0 | 5 | 0 |
| 14 ,, ,, ,, ... .. ... ... ... | 0 | 13 | 0 | 0 | 5 | 3 |
| 16 ,, ,, ,, ... . ... ... ... | 0 | 15 | 0 | 0 | 5 | 6 |
| 18 ,, ,, ,, ... ... ... ... ... | 0 | 17 | 6 | 0 | 6 | 0 |
| 20 ,, ,, ,, ... ... ... .. .. | 1 | 0 | 0 | 0 | 6 | 6 |
| 24 ,, ,, ,, ... ... ... ... ... | 1 | 4 | 0 | 0 | 7 | 0 |

# The "Turner" Water Colour Sketching Boxes.

These Boxes are intended primarily for outdoor sketching, and have been designed in such a way that, when fitted, they contain all the colours and materials necessary for outdoor work. The lid contains a Sketch Block of Whatman's Thick Drawing Paper, securely held in position by a spring, and is so constructed as to allow of the Block being reversed when not in use.

| | | EACH. s. | d. |
|---|---|---|---|
| **No. 1.** | **Japanned Tin Box, 7¼ by 5 in.,** containing 10 Half Pans of Moist Water Colours, a 7 by 5 Block of Whatman's Thick Paper, a Japanned Tin Water Bottle and Cup, Brush Holder, and a piece of Artist's Sponge .. .. .. .. .. .. | 14 | 6 |
| **No. 2.** | **Japanned Tin Box, 9¼ by 5½ in.,** containing 16 Half Pans of Moist Water Colours, a 9 by 5½ Block of Whatman's Thick Paper, a Japanned Tin Water Bottle and Cup, Brush Holder, and piece of Artist's Sponge .. .. .. .. .. .. | 22 | 6 |
| **No. 3.** | **Japanned Tin Box, 10½ by 7 in.,** containing 6 Whole Pans and 12 Half Pans of Moist Water Colours, a 10 by 7 Block of Whatman's Thick Paper, a Japanned Tin Water Bottle and Cup, Brush Holder, and a piece of Artist's Sponge .. .. | 30 | 0 |

The above Boxes with Water Bottle, Cup and Brush Holder only.

| | | | |
|---|---|---|---|
| **No. 1.** .. .. .. .. .. .. .. .. .. | 8 | 0 |
| **No. 2.** .. .. .. .. .. .. .. .. .. | 11 | 0 |
| **No. 3.** .. .. .. .. .. .. .. .. .. | 13 | 6 |

# Gunter's Sketcher's Hold-All.

*(REGISTERED).*

This case of Brown Waterproof Canvas, designed by Lt.-Col. GUNTER, contains in a compact compass all requisite materials for Water Colour Sketching. It can be readily strapped to the Easel, Stool or Cycle, or carried in the hand, without inconvenience; whilst its form affords complete waterproof protection to the contents.

The case contains a 16 Half Pan Japanned Tin Box of WINSOR & NEWTON'S Moist Water Colours, a Tube of Chinese White, a Water Bottle and Cups, Drawing Pencils, Knife, Sponge and Rubber, and a good selection of Sable and other Brushes.

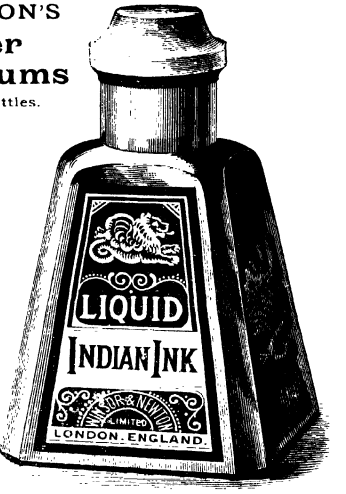
**Size, closed, 9 inches by 5½ inches.**

| | s. | d. |
|---|---|---|
| Fitted complete .. .. .. .. .. .. .. .. | 31 | 6 |
| The case only .. .. .. .. .. . .. .. | 6 | 0 |

## WINSOR & NEWTON'S
# Liquid Water Colours & Mediums

In Sixpenny and Shilling Bottles.


SIZE OF SIXPENNY BOTTLES.




SIZE OF SHILLING BOTTLES.

Asphaltum
Carmine
Crimson Lake
Gold Ink
GENERAL DRAWING INK
Indelible Brown Ink
INDIAN INK
Lamp Black
Ox Gall, Colourless
Prout's Brown
Prussian Blue
Sepia
Silver Ink
Vermilion

| | | | EACH. s. | d. |
|---|---|---|---|---|
| Albanine, Process Black | Modern Pigments, for use in Black and White drawings intended for process reproduction. In special wide-mouth Bottles, large size | .. | 1 | 0 |
| | ,, ,, ,, small size | .. | 0 | 6 |
| Chinese White. | Large Bottles or Tubes .. .. .. | | 1 | 0 |
| ,, ,, | Small Bottles or Tubes .. .. .. | | 0 | 6 |
| Liquid Graphite. | Large Bottles .. .. .. .. | | 0 | 6 |
| Ox Gall (in paste form) | Large Pots .. .. .. | | 1 | 0 |
| ,, ,, | Small Pots .. .. .. | | 0 | 6 |
| Artist's Gum Water. | Large Bottles .. .. .. | | 1 | 0 |
| ,, ,, ,, | Small Bottles .. .. .. | | 0 | 6 |

# WINSOR & NEWTON'S
# Waterproof Drawing Inks.

*FOR ARCHITECTS, DESIGNERS, &c.*


**Size of Small Bottles.**


**Size of 1 oz. Bottles.**

BLACK (Indian Ink) and 24 Colours, viz.:

Brick Red, Brown, Burnt Sienna, Carmine, Emerald, Grass Green, Indigo, Lemon, Olive Green, Orange, Payne's Gray, Pink, Plum, Prussian Blue, Purple, Scarlet, Sea Green, Sepia, Slate, Turquoise, Ultramarine, Vermilion, Violet, and Yellow:

| | *s.* | *d.* | | *s.* | *d.* |
|---|---|---|---|---|---|
| Small Bottles | 0 | 6 each. | 8 oz. Bottles | 7 | 0 each. |
| 1 oz. ,, | 1 | 0 ,, | 16 oz. ,, | 12 | 0 ,, |
| 4 oz. ,, | 3 | 6 ,, | | | |

*Specimen Card of tints on application.*

# Hexagon Cake Water Colours.


SIZE OF CAKES.

For use in Draughtsmen's, Engineers', and Railway Offices.

1s. 6d. each.

Burnt Sienna
Burnt Umber
Chrome Yellow
Emerald Green
Gamboge
Hooker's Green
Indian Red
Indigo
Intense Brown
Lamp Black
Neutral Tint
Payne's Gray
Prussian Blue
Raw Sienna
Ultramarine
Vandyke Brown
Venetian Red
Vermilion
Yellow Ochre

3s. each.

Crimson Lake
Indian Yellow
Scarlet Lake
Sepia

4s. each.

Cobalt

6s. each.

Carmine

# Fine Powder Colours,

CAREFULLY LEVIGATED AND PREPARED,

ADAPTED FOR

*DECORATIVE PAINTING, ILLUMINATING, PICTURE RESTORING, ETC.,*

Stationers' Note Paper and other Relief Stamping, Colour Printing, etc.

These Colours can be mixed with either Varnish, Gum Water, Size, Oil, or Turpentine, as required. They are put into glass Bottles of different sizes, in accordance with the value of the colour.


SIZE OF THE LARGEST BOTTLE.

SIZE OF THE SMALLEST BOTTLE.

**ALL COLOURS, PRICE 6d. EACH.**

## WINSOR & NEWTON'S

# *Artists' Oil Colours.*

THE world-wide circulation which has long been a distinguishing feature of WINSOR & NEWTON'S OIL COLOURS testifies convincingly to the repute in which they are held, and renders a description of their characteristics somewhat superfluous. In the production of these colours no pains or expense is spared to insure that the pigments used are the most brilliant and durable that can be manufactured, and that the oils in which the pigments are ground are of the purest and most perfect quality.

Grinding colours by machinery was first introduced by WINSOR & NEWTON in 1840, special apparatus being invented by them for the purpose. Since that period many further improvements have been made in the original Mills; and it is believed that at present there exists no machinery, which, for power and precision, combined with great cleanliness in working, can at all compare with that invented, perfected, and now used by them in the production of their *Artists' Oil Colours*.

Exhaustive tests which are constantly being made at the NORTH LONDON COLOUR WORKS, in which WINSOR & NEWTON'S OIL COLOURS are examined in conjunction with those of other makers, invariably establish the fact that alike in *power and brilliancy of Colour, perfection of grinding, excellence of consistency*, and most important of all—in *durability under varying* conditions, WINSOR & NEWTON'S OIL COLOURS occupy a pre-eminent position.

## WINSOR & NEWTON'S

# Finely Prepared Oil Colours,

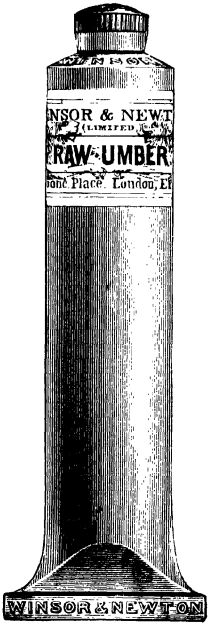
IN COLLAPSIBLE TUBES.

*(The Illustrations are the sizes of the Tubes.)*

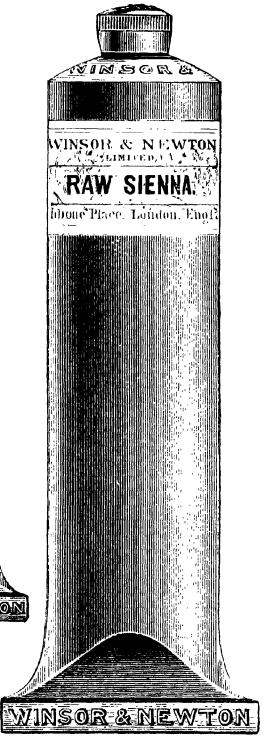

2-INCH TUBE.


3-INCH TUBE.

4-INCH TUBE.

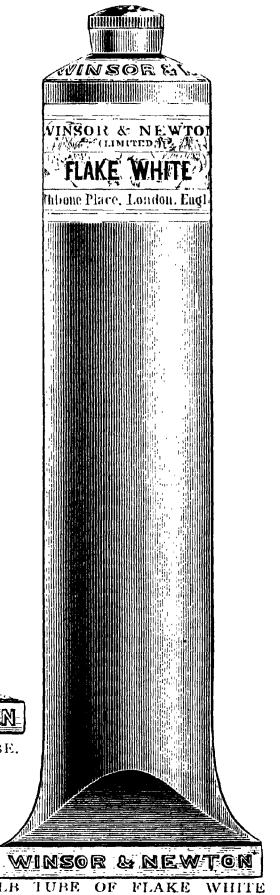



DOUBLE TUBE.




QUADRUPLE 4-INCH TUBE.

*(Particulars and Prices follow on the next two pages.)*




½-LB TUBE OF FLAKE WHITE

# Finely Prepared Oil Colours,

IN COLLAPSIBLE TUBES.

## Colours in 4-inch tubes, 4d. each.

Antwerp Blue
Asphaltum
Bitumen
Blue Black
Brown Ochre
Burnt Roman Ochre
Burnt Sienna
Burnt Umber
Caledonian Brown
Cassel Earth
Charcoal Gray
Chinese Blue
Chrome Lemon
Chrome Yellow
Chrome Deep
Chrome Orange
Cologne Earth
Cool Roman Ochre
Copal Megilp
Cremnitz White
Davy's Gray
Emerald Green
Flake White
Flake White (No. 2 consistency)
Foundation White (double size tubes)
Gold Ochre
Indian Red
Ivory Black
Lamp Black
Light Red
MEDIUM *(Copal Megilp)*
Megilp
Monochrome Cool Tints, Nos. 1, 2, 3
Monochrome Warm Tints, Nos. 1, 2, 3
Oxford Ochre
Permanent White (Zinc)
Prussian Blue
Prussian Green
Pyne's Megilp
Raw Sienna
Raw Sienna, Pale
Raw Umber
Roman Ochre
Silver White
Sugar of Lead
Terre Verte
Transparent Gold Ochre
Vandyke Brown
Venetian Red
Yellow Ochre
Zinc White

## Colours in 3-inch tubes, 4d. each.

Black Lead
Bone Brown
Brown Pink
Chrome Green, No. 1
Chrome Green, No. 2
Chrome Green, No. 3
Cinnabar Green, Pale
Cinnabar Green, Light
Cinnabar Green, Olive
Cinnabar Green, M'dle
Cinnabar Green, Deep
Cork Black
Indigo
Italian Pink
Jaune Brillant
King's Yellow
Naples Yellow, French
Naples Yellow
Neutral Tint
Payne's Gray
Prussian Brown
Terra Rosa
Verona Brown
Yellow Lake

## Colours in 2-inch tubes, 4d. each.

Cappagh Brown
Chrome Red
Crimson Lake
Gamboge
Indian Lake
Magenta
Mauve
Mauve, No. 2
New Blue
Olive Green
Olive Lake
Permanent Blue
Permanent Yellow
Purple Lake
Sap Green
Scarlet Lake
Sky Blue
Verdigris

**½-lb. Tubes of Cremnitz White, Flake White and Silver White, 1/4 each; 1-lb. Tubes, 2/8 each.**

**Double, treble, and quadruple Tubes of the above Colours are supplied at proportionate prices.**

## Oil Colours in Collapsible Tubes (*continued*).

### Two inch Tubes, 6d. each. "Studio" Tubes* 2/8.

Alizarin Crimson
Alizarin Green
Alizarin Orange
Alizarin Scarlet
Alizarin Yellow
Brown Madder
Burnt Lake
Cerulean Blue
Chinese Orange
Chinese Vermilion
French Vermilion
Geranium Lake
Green Lake, Light
Green Lake, Deep
Malachite Green, No. 2
Rembrandt's Madder
Rubens' Madder
Sepia
Vermilion, Pale
Vermilion

### Two inch Tubes, 1/- each. "Studio" Tubes* 5/4.

Brilliant Ultramarine
Carmine, No. 2
Citron Yellow
Cobalt Blue
Cobalt Green
Cobalt Green, Dark
Cobalt Violet
Emerald Oxide of Chromium
Extract of Vermilion
French Ultramarine
Indian Yellow
Leitch's Blue
Lemon Yellow, Pale
Lemon Yellow
Madder Lake
Malachite Green
Mars Brown
Mars Orange
Mars Red
Mars Violet
Mars Yellow
Mineral Gray
Orange Vermilion
Oxide of Chromium
Oxide of Chromium, Transparent
Permanent Violet
Primrose Yellow
Purple Madder
Rose Doré
Rose Madder
Rose Madder (pink shade)
Scarlet Madder
Scarlet Vermilion
Viridian

### Two Inch Tubes, 1/6 each. "Studio" Tubes* 8/-.

Aureolin
Burnt Carmine
Cadmium Yellow, Pale
Cadmium Yellow, Deep
Cadmium Orange
Carmine
Crimson Madder
Field's Orange Vermilion
Indian Purple
Madder Carmine
Orient Yellow
Violet Carmine
Yellow Carmine

### Two inch Tubes, 2/- each. "Studio" Tubes* 10/8.

Aurora Yellow
Primrose Aureolin

### Two inch Tubes, 2/6 each. "Studio" Tubes* 13/-.

Extra Madder Carmine
Extra Purple Madder
Ultramarine Ash

| | |
|---|---|
| Extra Ultramarine Ash .. .. .. | Two inch Tubes, each 3/6 |
| Ultramarine, Genuine, medium strength | ,, ,, 10/6 |
| Ditto ditto full strength .. | ,, ,, ,, 21/- |

* For the convenience of Artists using large quantities of Colour all the above are put up in "Studio" tubes of the capacity of six 2 inch tubes at reduced prices.

# Winsor & Newton's Stiff Oil Colours.


ACTUAL SIZE OF TUBE.

These colours have recently been issued by Messrs. Winsor & Newton, Ltd., in consequence of a growing tendency among Artists to favour the use of more concentrated preparations of Oil Colour than those hitherto in vogue. They are, as the name implies, simply modifications of the ordinary Oil Colours in which the proportion of pigment to oil is greatly increased; in the nature and quality of the oil and pigments used, and in all other respects, they are identical with ordinary Oil Colours.

Colours of this description have for many years been prepared by Messrs. Winsor & Newton for special orders, but hitherto the enquiries for them have not been sufficient in number or importance to warrant their inclusion in the catalogue. The advantages of these Colours are however becoming now more widely recognised, and as the demand for them (especially among Painters of the newer Schools) is undoubtedly much on the increase, and they are being adopted by some of our leading artists, Messrs. Winsor & Newton no longer feel any hesitation in placing them on the market in the usual way.

The colours are especially suited, not only for those painters who prefer working with solid tints; but also for those who have a predilection for the use of their own Vehicles, and who find they cannot use as much as they would like of the latter, without making their tints inconveniently thin, on account of the large amount of oil already present in the usual form of Oil Colour. They are put up for convenience in wide-mouthed collapsible tubes of the same capacity as an ordinary 4in. tube. The colours at present stocked will be limited to the following list, but other colours may be obtained to order.

## LIST OF THE COLOURS.

| | | | |
|---|---|---|---|
| Burnt Sienna<br>Burnt Umber<br>Flake White<br>Ivory Black<br>Light Red<br>Prussian Blue<br>Raw Sienna<br>Raw Umber<br>Yellow Ochre<br>Terre Verte | 6d. each.<br>*Studio Tubes*<br>1/4 each. | Alizarin Crimson<br>Brown Madder<br>Vermilion | 1/6 each.<br>*Studio Tubes*<br>4/- each. |
| | | Cobalt Blue<br>Cobalt Green<br>French Blue<br>Lemon Yellow<br>Oxide of Chromium<br>Rose Madder<br>Viridian | 3/- each.<br>*Studio Tubes*<br>8/- each. |
| Naples Yellow<br>Verona Brown | 8d. each.<br>*Studio Tubes*<br>1/10 each. | Cadmium Yellow 4/6 each 12/- each<br>Aurora Yellow 6/- ,, 16/- ,, | *Studio Tubes* |

*"Studio" Tubes of Stiff Oil Colours are of the capacity of 3 ordinary tubes.*

## WINSOR & NEWTON'S

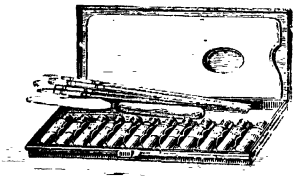
# Japanned Tin Boxes,

FITTED WITH

## COLOURS & MATERIALS FOR OIL PAINTING.

WINSOR & NEWTON'S Oil Colour Boxes are of the best Material and Workmanship; the range is extensive, and will be found to meet every requirement.

Further improvements have been made in many of the Boxes. In the TOURIST'S, COMPACT, STUDENT'S, and COMPANION, the palettes slide into a groove in the body of the box, completely covering the contents and keeping them in their proper positions.



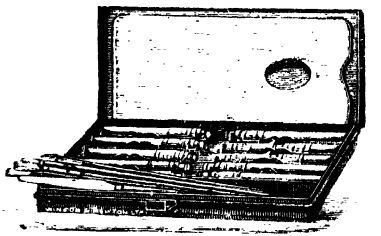
### PUPIL'S BOX.

PUPIL'S BOX: Size, 7⅞in. by 3⅞in. 1 in. deep, containing 12 Colours in 2 inch Tubes, 4 Hog hair Brushes, Mahogany Palette and Palette Knife.

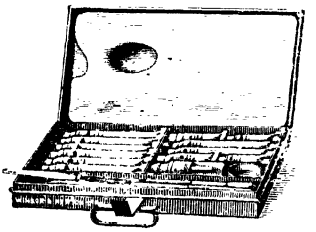
**Price, fitted, 6/-;** Empty, but with Mahogany Palette, 2/3.

### POCKET BOX.

POCKET BOX; Size, 9½ in. by 4⅞ in., 1 in. deep, containing 12 Colours, 6 Hog-hair Brushes, Mahogany Palette and Palette Knife.



**Price, fitted, 10/-;** Empty, but with Mahogany Palette, 3/6.



## TOURIST'S BOX.

TOURIST'S BOX: Size, 9¼ in. by 6, 1¼ inch deep, containing twelve Colours, Brushes, Palette Knife, Oil, Dipper, and Mahogany Palette.

**Price, fitted, 12/6;**

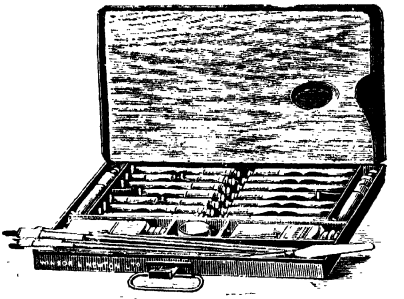
Empty, but with Dipper, Bottle of Oil, and Mahogany Palette, 6/6.

## COMPACT BOX.

COMPACT BOX: Size, 10⅜ ins. by 7¼, 1⅜ in. deep, containing 18 Colours, Sable and Hog-hair Brushes, Palette Knife, Dipper, Linseed Oil, Turpentine, and Mahogany Palette.

**Price, fitted, 18/-;**

Empty, but with Dipper, 5/6.



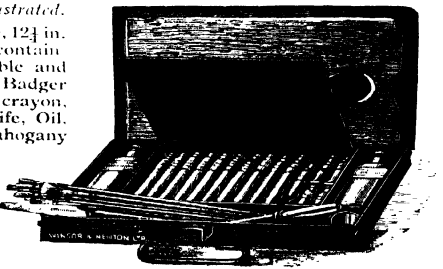
## STUDENT'S BOX.

*With inside Lid as Illustrated.*

STUDENT'S BOX: Size, 12¾ in. by 6¾, 1¾ in. deep, containing 15 Colours, Sable and Hog-hair Brushes, Badger Softener, Chalk, Porterayon, Dipper, Palette Knife, Oil, Turpentine, and Mahogany Palette.

**Price, fitted, £1 1s.;**

Empty, but with Dipper, 7/-.

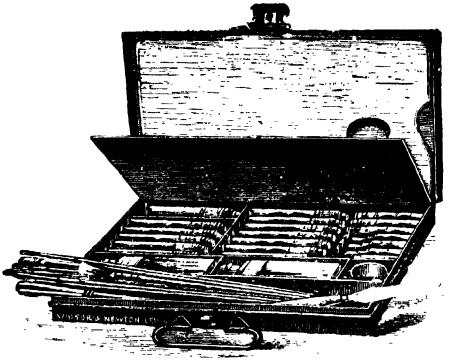


# Sketching Box.

SKETCHING BOX: Size, 13 inches by 5, 2 inches deep, containing 18 Colours, Sable and Hog-hair Brushes, Badger Softener, Chalk, Portcrayon, Palette Knife, Double Dipper, Linseed Oil, and Turpentine in Japanned Tin Bottles, and Folding Mahogany Palette.

**Price, fitted, £1 15s.**

Empty, but including two Japanned Tin Oil Bottles, Folding Mahogany Palette, Double Dipper, and Leather Strap, £1 1s.



# Companion Box.

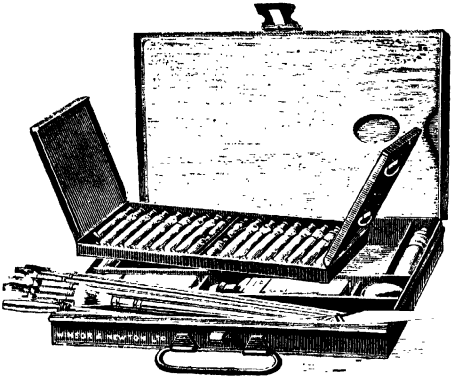
COMPANION BOX: Size, 13 inches by 9, 1¼ inches deep, containing 20 Colours, Sable and Hog-hair Brushes, Badger Softener, Chalk, Portcrayon, Palette Knife, Dipper, Oil, Turpentine, and Mahogany Palette

**Price, fitted, £1 11s. 6d.;** Empty, 8/6.

# Double Companion Box.

DOUBLE COMPANION BOX: Size, 13 inches by 9, 2½ inches deep, containing 20 Colours, Sable and Hog-hair Brushes, Badger Softener, Chalk, Portcrayon, Palette Knife, Dipper, Oil, Turpentine, Mahogany Palette, and three prepared Millboards, 12 inches by 8.

**Price, fitted, £1 17s. 6d.;** Empty, 12/-.



## Portable Box.

PORTABLE BOX: Size, 13½ inches by 9, 1¾ inches deep, containing 22 Colours, a general selection of Sable and Hog hair Brushes, Badger Softener, Chalk, Porterayon, Oil, Turpentine, Palette Knife, Capped Dipper, and Mahogany Palette.

**Price, fitted, £2 2s.;** Empty, 12/-.

## Double Portable Box.

DOUBLE PORTABLE BOX: Size, 13¾ inches by 9, 2¾ inches deep, containing 24 Colours, a general selection of Sable and Hog-hair Brushes, Badger Softener, Chalk, Porterayon, Palette Knife, Capped Dipper, Oil, Turpentine, Mahogany Palette, and three Prepared Millboards, 13 inches by 8.

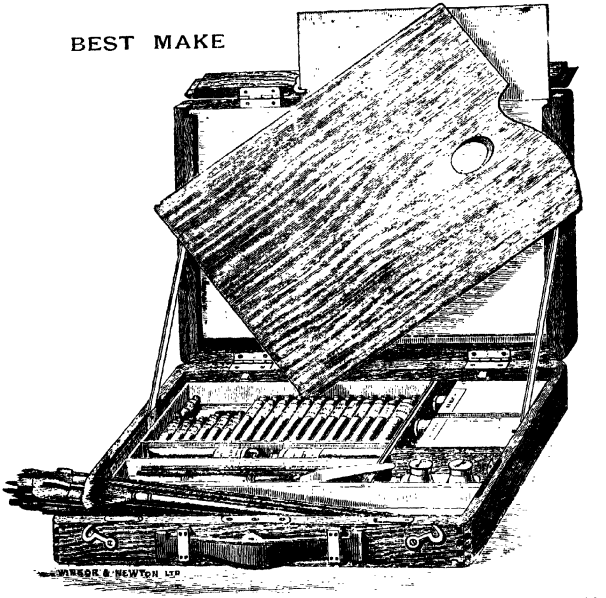
**Price, fitted, £2 12s. 6d.;** Empty, 16/-.

## Academy and Studio Boxes.

Fitted in the most complete manner.

**3 Guineas to 24 Guineas.**

# Polished Oak or Walnut Oil Colour Sketching Boxes.




These Boxes are lined with Tin, and contain two Tin Oil Bottles, Double Dipper, Palette, and Two Wood Panels.

| Nos. | Size. | | s. | d. | Nos. | Size. | | s. | d. |
|---|---|---|---|---|---|---|---|---|---|
| *1 | 9¼ inches by 6½ | each | 13 | 6 | 4 | 13 inches by 10¼ | each | 21 | 0 |
| *2 | 10¼ ,, 6¾ | ,, | 15 | 0 | 5 | 15 ,, 11¼ | ,, | 24 | 0 |
| 3 | 11 ,, 8¼ | ,, | 16 | 6 | 6 | 17 ,, 13¼ | ,, | 27 | 0 |

*Nos. 1 and 2 are Thumb hole Boxes.

The above Boxes, containing in addition 10 to 26 Colours, Brushes, Oil, Turpentine, Palette Knife, &c., as illustrated.

| Nos. | | | £ | s. | d. | Nos. | | | £ | s. | d. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | ... | ... | each | 0 | 18 | 6 | 4 | ... ... | each | 1 | 15 | 0 |
| 2 | ... | ... | ,, | 1 | 1 | 0 | 5 | ... ... | ,, | 2 | 5 | 0 |
| 3 | ... | ... | ,, | 1 | 4 | 0 | 6 | ... ... | ,, | 2 | 14 | 0 |

# Varnishes and Oils.

| | Small Glass Bottles, each. | Glass Bottles Round or Flat,* each. | ¼ Pints in Stone Bottles, each. | ½ Pints in Stone Bottles, each. | Pints in Stone Bottles each. |
|---|---|---|---|---|---|
| | s. d. | s. d. | s. d. | s. d. | s. d. |
| Picture Mastic Varnish, for Varnishing .. .. | 0 9 | 1 6 | 3 0 | 5 6 | 10 0 |
| Mastic Varnish for Megilp | 1 0 | 2 0 | 3 9 | 7 0 | 13 6 |
| Amber Varnish .. .. | 0 9 | 1 6 | 3 0 | 5 6 | 10 0 |
| Amber Varnish, Light .. | 1 0 | 2 0 | 3 9 | 7 0 | 13 6 |
| Oil of Spike Lavender .. | 0 9 | 1 6 | 3 0 | 5 6 | 10 0 |
| Picture Copal Varnish .. | 0 6 | 1 0 | 1 9 | 3 0 | 6 0 |
| Oil Copal Varnish .. | 0 6 | 1 0 | 1 9 | 3 0 | 6 0 |
| White Spirit Varnish .. | 0 6 | 1 0 | 1 9 | 3 0 | 6 0 |
| Brown Spirit Varnish .. | 0 6 | 1 0 | 1 9 | 3 0 | 6 0 |
| White Lac Varnish .. | 0 6 | 1 0 | 1 9 | 3 0 | 6 0 |
| Oil Vehicles (see page 27) | 0 6 | 1 0 | 1 9 | 3 0 | 6 0 |
| Crystal or Map Varnish.. | 0 5 | 0 9 | 1 3 | 2 3 | 4 6 |
| Japan Gold Size .. .. | 0 4 | 0 8 | 1 0 | 2 0 | 3 9 |
| Fat Oil .. .. .. | 0 5 | 0 9 | 1 3 | 2 3 | 4 6 |
| Walnut Oil (Nut Oil) .. | 0 3 | 0 6 | 1 0 | 1 6 | 3 0 |
| Poppy Oil .. .. .. | 0 3 | 0 6 | 1 0 | 1 6 | 3 0 |
| Manganesed Poppy Oil .. | 0 3 | 0 6 | 1 0 | 1 6 | 3 0 |
| Pale Drying Oil .. .. | 0 3 | 0 6 | 0 10 | 1 3 | 2 3 |
| Strong Drying Oil .. | 0 3 | 0 6 | 0 10 | 1 3 | 2 3 |
| Purified Linseed Oil .. | 0 3 | 0 6 | 0 9 | 1 2 | 2 0 |
| Manganesed Linseed Oil | 0 3 | 0 6 | 0 9 | 1 2 | 2 0 |
| Spirits of Turpentine .. | 0 3 | 0 5 | 0 6 | 0 11 | 1 6 |

* The Flat Bottles fit the majority of the Japanned Tin Oil Colour Boxes.

# Mediums for Oil Painting.

| | Per Bottle s. d. |
|---|---|
| Amber Medium, for oil painting on glass .. .. .. | 1 6 |
| Adolfi Medium, for painting on silk or satin .. .. .. | 1 0 |
| Liquid Size, for preparing terra-cotta plaques for painting, &c. .. | 0 6 |
| Siccatif Courtray .. .. .. .. .. .. | 0 9 |
| Siccatif de Harlem (Durozier's) .. .. .. .. | 1 3 |
| ,, ,, large size .. .. .. | 2 6 |
| Sochnée Varnish, No. 3 .. .. .. .. .. | 1 0 |
| ,, ,, large size .. .. .. .. | 2 0 |
| Turck's Artist's Medium .. .. .. .. .. | 1 0 |
| ,, Florentine Medium, for painting on tapestry, satin, and textile fabrics .. .. .. .. .. | 1 0 |
| ,, Mirrorine Medium, for painting on glass, china, and terra-cotta .. .. .. .. .. | 1 0 |

# WINSOR & NEWTON'S
# OIL VEHICLES.

MESSRS. WINSOR & NEWTON'S newly introduced "Oil Vehicles" are intended mainly to save the time of the Painter. There is no secret about their composition, nor is the principle of their construction a new one, practised as it was centuries ago in the sunny clime of Italy. The difficulties, however, of carrying out the Italian process, on a commercial scale, in the latitude of England, have hitherto prevented Artists' Colourmen from attempting the manufacture.

Briefly, the Vehicles are made as follows: The Oil (Linseed, Poppy, or Walnut, as the case may be) is first purified by a prolonged exposure to moisture and sunlight until (without the use of chemicals) it becomes free from mucilage, almost destitute of colour, and of crystal transparency. In this condition, the oil is separated from water and impurities, and allowed to thicken gradually by free exposure to air. When it is of the consistency of honey, the process is stopped, and the product, now much too viscous to paint with comfortably, is dissolved in Oil of Spike, Turpentine, or Petroleum, until its degree of fluidity is about the same as that of the original oil before treatment. In this condition it is used for painting.

The drying of the oil, which usually takes place on the picture itself, is thus in a great measure accomplished before the artist begins to paint, and the progress of his work is correspondingly accelerated. As the Oil Vehicles dry in a natural manner without the use of dryers and contain no resinous substances, they may be employed with absolute confidence as to their future behaviour. The artist, too, with these vehicles, knows exactly what he is using; and this, nowadays, when secret nostra are resolutely boycotted by the better class of painters, is a great point in their favour.

The Series consists of Six Vehicles as follows:

| | | | | |
|---|---|---|---|---|
| "OIL VEHICLE | No. 1 | is prepared from | Linseed Oil and | Oil of Spike |
| ,, ,, | No. 1A | ,, ,, | ,, | Turpentine |
| ,, ,, | No. 1B | ,, ,, | ,, | Petroleum |
| "OIL VEHICLE | No. 2" | is prepared from | Poppy Oil and | Oil of Spike |
| ,, ,, | No. 2A | ,, ,, | ,, | Turpentine |
| ,, ,, | No. 2B | ,, ,, | ,, | Petroleum |

Vehicles made from Walnut Oil are made only for Special Orders.

*N.B. The Vehicle prepared with Oil of Spike evaporates more slowly than the others, and will probably be found, for general purposes, the most convenient. That prepared with petroleum evaporates the most rapidly, the Turpentine preparation occupying an intermediate position.*

## PRICES.

| | | s. | d. | | | s. | d. |
|---|---|---|---|---|---|---|---|
| Small Bottles ... | each | 0 | 6 | ¼-Pint Bottles or Tins, | each | 1 | 9 |
| Round or Flat Bottles | ,, | 1 | 0 | ½-Pint ,, ,, | ,, | 3 | 0 |
| | | | | Pint ,, ,, | ,, | 6 | 0 |

# Brushes for Painting in Water Colours.

## BRUSHES IN QUILLS.

| | Colour of Silk Tie | Brown Sable Hair. each. s. d. | Red Sable Hair. each. s. d. | Best Siberian Hair. per doz. s. d. | Best Camel Hair. per doz. s. d. |
|---|---|---|---|---|---|
| Crow ... ... | *Blue* | 0 4 | 0 3 | 1 6 | 0 6 |
| Duck ... ... | *Magenta* | 0 8 | 0 6 | 2 3 | 0 9 |
| Small Goose ... | *Green* | 1 0 | 0 10 | 3 0 | |
| Goose ... ... | *Pink* | 1 2 | 1 0 | 3 9 | 1 6 |
| Extra Goose ... | *Amber* | 1 8 | 1 3 | 4 6 | |
| IN LONG QUILLS. | | | | each. | each. |
| Extra Small Swan | *Blue* | 3 6 | 2 8 | 1 0 | 0 8 |
| Small Swan ... | *Magenta* | 4 6 | 3 6 | 1 3 | 1 0 |
| Middle Swan .. | *Green* | 6 0 | 4 6 | 1 9 | 1 4 |
| Large Swan ... | *Pink* | 8 3 | 6 0 | 2 6 | 1 8 |

## SABLE BRUSHES IN ALBATA FERRULES.

| | Brown Sable Hair. each. s. d. | Red Sable Hair. each. s. d. |
|---|---|---|
| Nos. 0 & 1 Flat or Round | 1 0 | 0 8 |
| ,, 2 ,, | 1 3 | 0 10 |
| ,, 3 ,, | 1 6 | 1 0 |
| ,, 4 ,, | 1 9 | 1 3 |
| ,, 5 ,, | 2 2 | 1 6 |
| ,, 6 ,, | 2 6 | 2 0 |
| ,, 7 ,, | 3 3 | 2 3 |

| EXTRA LARGE SERIES | | Flat. s. d. | Round. s. d. | Flat. s. d. | Round. s. d. |
|---|---|---|---|---|---|
| No. 1 Flat or Round | each | 4 6 | 6 0 | 3 3 | 3 9 |
| ,, 2 ,, | ,, | 6 9 | 9 0 | 5 3 | 5 9 |
| ,, 3 ,, | ,, | 9 0 | 10 6 | 7 0 | 7 6 |
| ,, 4 ,, | ,, | 11 3 | 13 6 | 9 0 | 10 6 |
| ,, 5 ,, | ,, | 14 3 | 17 6 | 11 6 | 13 6 |
| ,, 6 ,, | ,, | 17 6 | 20 0 | 14 0 | 16 0 |

# Brushes for Painting in Water Colours.

## BRUSHES IN NICKEL FERRULES.

| | Brown Sable Hair | Red Sable Hair | Brown Fitch Hair | Best Siberian Hair |
|---|---|---|---|---|
| | s. d. | s. d. | s. d. | s. d. |
| Nos. 0 & 1 Flat or Round..each | 0 7 | 0 5 | 0 4 | 0 3 |
| ,, 2 ,, ,, | 0 9 | 0 6 | 0 4 | 0 4 |
| ,, 3 ,, ,, | 0 11 | 0 7 | 0 4 | 0 4 |
| ,, 4 ,, ,, | 1 2 | 0 8 | 0 5 | 0 5 |
| ,, 5 ,, ,, | 1 4 | 0 10 | 0 5 | 0 5 |
| ,, 6 ,, ,, | 1 6 | 1 0 | 0 5 | 0 6 |
| ,, 7 Flat ... ... ,, | 2 0 | 1 4 | 0 6 | 0 8 |
| ,, 8 ,, ... ... ,, | | 1 8 | 0 7 | 0 10 |
| ,, 9 ,, ... ... ,, | | 2 0 | 0 9 | 1 0 |
| ,, 7 Round .. ,, | 2 8 | 1 8 | 0 6 | 0 8 |
| ,, 8 ,, .. .. | | 2 0 | 0 7 | 0 10 |
| ,, 9 ,, ... ,, | | 2 8 | 0 9 | 1 0 |

## BEST CAMEL HAIR BRUSHES IN TIN FERRULES.

| | per doz. s. d. |
|---|---|
| No. 1 Flat or Round .. ... ... ... ... ... .. | 1 2 |
| ,, 2 ,, ... ... ... ... ... ... | 1 3 |
| ,, 3 ,, ... ... ... ... ... ... ... | 1 4 |
| ,, 4 ,, ... ... .. ... ... ... ... | 1 6 |
| ,, 5 ,, ... ... ... ... ... .. ... | 1 9 |
| ,, 6 ,, ... ... ... ... ... ... ... | 2 0 |
| ,, 7 ,, ... .. ... ... .. ... ... | 2 6 |
| ,, 8 ,, ... ... ... ... ... .. ... | 3 0 |
| ,, 9 ,, ... .. ... ... ... ... ... | 3 9 |
| ,, 10 ,, ... ... ... ... ... ... ... | 4 9 |
| ,, 11 ,, ... .. ... ... ... ... ... | 5 6 |
| ,, 12 ,, ... ... ... ... ... ... ... | 6 0 |

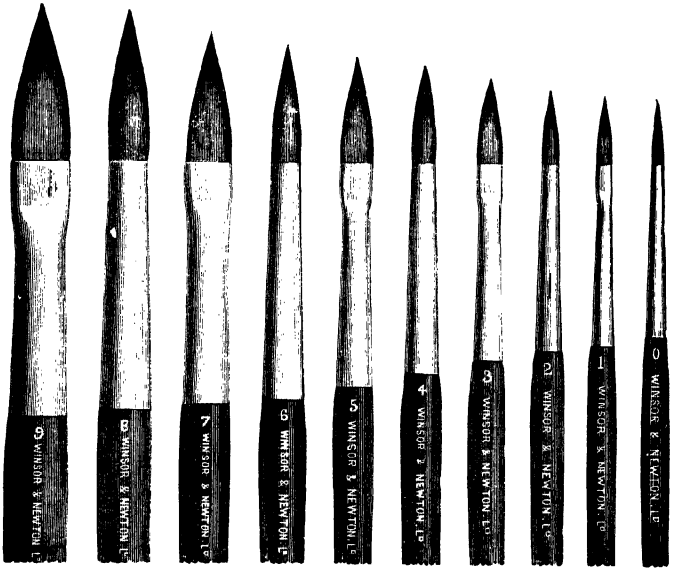
## WASH OR SKY BRUSHES IN NICKEL FERRULES.

| | Flat. s. d. | Round. s. d. |
|---|---|---|
| Dyed Sable Hair, large size ... ... each | 3 6 | 4 0 |
| Ditto small size ... ... ,, | 3 0 | 3 6 |
| Best Siberian Hair, large size ... ... ,, | 1 3 | 1 3 |
| Ditto small size ... ... ,, | 0 9 | 0 9 |

# Sable Brushes,

FOR PAINTING IN OIL COLOURS.

**Finest Red Sables in Nickel Ferrules.**




| FLAT OR ROUND. | | | | FLAT. | | | | ROUND. | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Nos. | | | *s.* *d.* | Nos. | | | *s.* *d.* | Nos. | | | *s.* *d.* |
| 0 and 1 | ... | each | 0 5 | 7 | ... | each | 1 4 | 7 | ... | each | 1 8 |
| 2 | ... ... | ,, | 0 6 | 8 | ... | ,, | 1 8 | 8 | ... | ,, | 2 0 |
| 3 | ... ... | ,, | 0 7 | 9 | ... | ,, | 2 0 | 9 | ... | ,, | 2 8 |
| 4 | ... ... | ,, | 0 8 | 10 | ... | ,, | 2 8 | 10 | ... | ,, | 3 3 |
| 5 | ... ... | ,, | 0 10 | 11 | ... | ,, | 3 3 | 11 | ... | ,, | 4 0 |
| 6 | ... ... | ,, | 1 0 | 12 | ... | ,, | 4 0 | 12 | ... | ,, | 4 9 |

BRIGHT'S & RIGGER RED SABLE BRUSHES are made at the same prices as above.

# Brushes

## FOR PAINTING IN OIL COLOURS.

### Extra Fine Hog Hair in Nickel Ferrules. A *Series.*

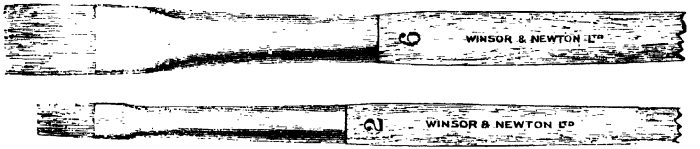
MADE OF THE SOFTEST LYONS HAIR.

WITH 12-INCH YELLOW POLISHED HANDLES.

| Nos. | Each. s. d. | Nos. | Each. s. d. |
|---|---|---|---|
| 1 to 6, Flat or Round, all sizes | 0 8 | 9, Flat or Round | 1 1 |
| 7 ,, ,, | 0 9 | 10 ,, ,, | 1 3 |
| 8 ,, ,, | 1 0 | 11 ,, ,, | 1 6 |
| | | 12 ,, ,, | 1 9 |

### Herkomer Brushes.

EXTRA FINE HOG HAIR IN NICKEL FERRULES.




Short and thin in hair. Quality and Prices as A Series above.

### Hog Hair in Nickel Ferrules. B *Series.*

WITH 12-INCH RED POLISHED CEDAR HANDLES.

| Nos. | Each. s. d. | Nos. | Each. s. d. |
|---|---|---|---|
| 1 to 6, Flat or Round, all sizes | 0 4 | 12, Flat or Round | 0 10 |
| 7 Flat or Round | 0 5 | 13 ,, ,, | 1 3 |
| 8 ,, ,, | 0 6 | 14 ,, ,, | 1 6 |
| 9 ,, ,, | 0 7 | 15 ,, ,, | 1 9 |
| 10 ,, ,, | 0 8 | 16 ,, ,, | 2 0 |
| 11 ,, ,, | 0 9 | 17 ,, ,, | 2 3 |
| | | 18 ,, ,, | 2 8 |

### Hog Hair in Tin Ferrules. C *Series.*

WITH 12-INCH NATURAL POLISHED CEDAR HANDLES.

| Nos. | Each. s. d. | Nos. | Each. s. d. |
|---|---|---|---|
| 1 to 6, Flat or Round, all sizes | 0 3 | 9, Flat or Round | 0 6 |
| 7 Flat or Round | 0 4 | 10 ,, ,, | 0 7 |
| 8 ,, ,, | 0 5 | 11 ,, ,, | 0 8 |
| | | 12 ,, ,, | 0 9 |

## Hog Hair in Tin Ferrules. E *Series.*

WITH 12 INCH UNPOLISHED PINE HANDLES.

| Nos. | Each s. d. | Nos. | Each s. d. |
|---|---|---|---|
| 1 to 6, Flat or Round, all sizes | 0 2 | 10 Flat or Round | 0 6 |
| 7 ,, ,, | 0 3 | 11 ,, ,, | 0 6 |
| 8 ,, ,, | 0 4 | 12 ,, ,, | 0 7 |
| 9 ,, ,, | 0 5 | | |

## Hog Hair in Tin Ferrules. G *Series.*

FRENCH SHAPE, SHORT AND VERY THIN IN HAIR FLAT ONLY.

WITH 12 INCH WHITE WOOD HANDLES.

| Nos. | Each s. d. | Nos. | Each s. d. |
|---|---|---|---|
| 1 to 6, Flat only, all sizes | 0 3 | 13 Flat only | 0 9 |
| 7 ,, ,, | 0 4 | 14 ,, ,, | 1 0 |
| 8 ,, ,, | 0 5 | 15 ,, ,, | 1 2 |
| 9 ,, ,, | 0 6 | 16 ,, ,, | 1 4 |
| 10 ,, ,, | 0 6 | 17 ,, ,, | 1 6 |
| 11 ,, ,, | 0 7 | 18 ,, ,, | 1 9 |
| 12 ,, ,, | 0 8 | | |

## Brown Fitch Hair Brushes in Nickel Ferrules.

WITH 12 INCH NATURAL POLISHED CEDAR HANDLES.

| Nos. | Each s. d. | Nos. | Each s. d. |
|---|---|---|---|
| 1 Flat or Round | 0 4 | 7 Flat or Round | 0 6 |
| 2 ,, ,, | 0 4 | 8 ,, ,, | 0 7 |
| 3 ,, ,, | 0 4 | 9 ,, ,, | 0 9 |
| 4 ,, ,, | 0 5 | 10 ,, ,, | 0 10 |
| 5 ,, ,, | 0 5 | 11 ,, ,, | 1 0 |
| 6 ,, ,, | 0 5 | 12 ,, ,, | 1 1 |

## Finest Round Badger Hair Softeners.

WITH RED POLISHED CEDAR HANDLES.

| Nos. | Each s. d. | Nos. | Each s. d. |
|---|---|---|---|
| 1 | 0 9 | 6 | 2 3 |
| 2 | 0 11 | 7 | 3 0 |
| 3 | 1 1 | 8 | 4 0 |
| 4 | 1 6 | 9 | 4 6 |
| 5 | 2 0 | | |

## Flat Hog Hair Varnishing Brushes in Nickel Ferrules.

MADE OF THE SOFTEST HOG HAIR.

WITH NATURAL POLISHED CEDAR HANDLES.

| | Each s. d. | | Each s. d. |
|---|---|---|---|
| 1 inch wide | 1 2 | 3 inches wide | 3 6 |
| 1½ ,, | 1 9 | 3½ ,, ,, | 4 0 |
| 2 ,, | 2 3 | 4 ,, ,, | 4 6 |
| 2½ ,, | 2 9 | | |

## WINSOR & NEWTON'S

# Artists' Prepared Canvas

For Painting in Oil Colours.

| | BEST QUALITY Single-primed, Full primed & Roman Canvas | BEST QUALITY Ticken Canvas | SECOND QUALITY Single-Primed & Full primed. |
|---|---|---|---|
| | *s. d.* | *s. d.* | *s. d.* |
| 27 inches wide ... per yd. run | 3 0 | 3 8 | 2 3 |
| 30 ,, ,, ... ... ,, | 3 3 | 4 0 | 2 6 |
| 36 ,, ,, ... ... ,, | 3 9 | 4 9 | 3 0 |
| 38 ,, ,, ... ... ,, | 4 0 | 5 3 | 3 2 |
| 42 ,, ,, ... ... ,, | 4 6 | 5 9 | 3 6 |
| 45 ,, ,, ... ,, | 5 3 | 6 6 | 3 9 |
| 54 ,, ,, ... ... ,, | 7 0 | 8 0 | 4 6 |
| 62 ,, ,, ... ... ,, | 8 6 | 10 0 | 5 0 |
| 74 ,, ,, ... ... ,, | 10 6 | 12 0 | 6 0 |
| 86 ,, ,, ... ... ,, | 12 6 | 15 0 | 7 0 |

# "Winton" Artists' Prepared Canvas.

A new variety introduced to meet the requirements of those numerous Artists who prefer a more pronounced grain in their Canvas than is afforded by the ordinary Single-primed. The "Winton" Canvas is firm in substance, of even texture, and has a grain about midway between the Single-primed and Roman varieties. It is a specially woven fabric, prepared by WINSOR & NEWTON, Limited, and will be found superior to the foreign productions which have been offered of late at higher prices.

| | *s. d.* | | *s. d.* |
|---|---|---|---|
| 27 inches wide ... per yard | 2 6 | 45 inches wide ... per yard | 4 4 |
| 30 ,, ,, ... ,, | 2 9 | 54 ,, ,, ... ,, | 5 0 |
| 36 ,, ,, ... ,, | 3 6 | 74 ,, ,, ... ,, | 7 0 |
| 42 ,, ,, ... ,, | 4 0 | | |

*Sample post free on application.*

WINTON CANVAS ON STRETCHERS is supplied in all the regular sizes, at proportionate prices.

# *WINSOR & NEWTON'S* Artists' Canvas.

**Strained on Wedged Stretchers, with Bevelled Inside Edges.**

| Size in Inches. | Best quality Canvas and Stretchers. Each. s. | d. | 2nd quality Canvas and Stretchers. Each. s. | d. |
|---|---|---|---|---|
| 7 by 5 | 0 | 8 | 0 | 6 |
| 8 ,, 6 | 0 | 8 | 0 | 6 |
| 9 ,, 6 | 0 | 9 | 0 | 6 |
| 9 ,, 7 | 0 | 11 | 0 | 7 |
| 10 ,, 6 | 0 | 11 | 0 | 8 |
| 10 ,, 7 | 0 | 11 | 0 | 8 |
| 10 ,, 8 | 1 | 0 | 0 | 9 |
| 11 ,, 9 | 1 | 2 | 0 | 10 |
| 12 ,, 6 | 0 | 11 | 0 | 9 |
| 12 ,, 8 | 1 | 1 | 0 | 9 |
| 12 ,, 9 | 1 | 2 | 0 | 10 |
| 12 ,, 10 | 1 | 2 | 0 | 10 |
| 13 ,, 8 | 1 | 2 | 0 | 11 |
| 13 ,, 9 | 1 | 2 | 0 | 11 |
| 13 ,, 10 | 1 | 3 | 0 | 11 |
| 13 ,, 11 | 1 | 4 | 0 | 11 |
| 14 ,, 6 | 1 | 2 | 0 | 9 |
| 14 ,, 7 | 1 | 2 | 0 | 9 |
| 14 ,, 8 | 1 | 2 | 0 | 10 |
| 14 ,, 9 | 1 | 4 | 0 | 11 |
| 14 ,, 10 | 1 | 4 | 0 | 11 |
| 14 ,, 12 | 1 | 5 | 1 | 0 |
| 15 ,, 11 | 1 | 6 | 1 | 1 |
| 15 ,, 12 | 1 | 6 | 1 | 1 |
| 16 ,, 8 | 1 | 4 | 1 | 0 |
| 16 ,, 10 | 1 | 5 | 1 | 1 |
| 16 ,, 11 | 1 | 6 | 1 | 1 |
| 16 ,, 12 | 1 | 7 | 1 | 2 |
| 16 ,, 14 | 1 | 9 | 1 | 3 |
| 17 ,, 13 | 1 | 9 | 1 | 4 |
| 17 ,, 14 | 1 | 10 | 1 | 4 |
| 18½ ,, 8½ | 1 | 6 | 1 | 1 |
| 18 ,, 10 | 1 | 7 | 1 | 1 |
| 18 ,, 12 | 1 | 9 | 1 | 2 |
| 18 ,, 14 | 2 | 0 | 1 | 4 |
| 18 ,, 15 | 2 | 0 | 1 | 6 |
| 18 ,, 16 | 2 | 0 | 1 | 6 |
| 19 ,, 9 | 1 | 8 | 1 | 1 |
| 19 ,, 13 | 1 | 11 | 1 | 4 |
| 19 ,, 15 | 2 | 1 | 1 | 6 |
| 20 ,, 10 | 1 | 10 | 1 | 4 |
| 20 ,, 12 | 1 | 11 | 1 | 4 |
| 20 ,, 14 | 2 | 1 | 1 | 6 |
| 20 ,, 15 | 2 | 2 | 1 | 7 |
| 20 ,, 16 | 2 | 2 | 1 | 7 |
| 21 ,, 14 | 2 | 2 | 1 | 6 |
| 21 ,, 17 | 2 | 4 | 1 | 9 |

| Size in Inches. | Best quality Canvas and Stretchers. Each. s. | d. | 2nd quality Canvas and Stretchers. Each. s. | d. |
|---|---|---|---|---|
| 22 by 10 | 2 | 1 | 1 | 6 |
| 22 ,, 14 | 2 | 4 | 1 | 7 |
| 22 ,, 15 | 2 | 4 | 1 | 8 |
| 22 ,, 16 | 2 | 4 | 1 | 9 |
| 22 ,, 17 | 2 | 6 | 1 | 10 |
| 22 ,, 18 | 2 | 8 | 1 | 10 |
| 24 ,, 10 | 2 | 1 | 1 | 7 |
| 24 ,, 12 | 2 | 2 | 1 | 7 |
| 24 ,, 14 | 2 | 4 | 1 | 9 |
| 24 ,, 16 | 2 | 8 | 2 | 0 |
| 24 ,, 18 | 2 | 10 | 2 | 0 |
| 24 ,, 20 | 3 | 2 | 2 | 2 |
| 26 ,, 16 | 3 | 0 | 2 | 2 |
| 26 ,, 18 | 3 | 2 | 2 | 2 |
| 26 ,, 20 | 3 | 6 | 2 | 4 |
| 26 ,, 22 | 3 | 8 | 2 | 6 |
| 27 ,, 20 | 3 | 6 | 2 | 9 |
| 27 ,, 22 | 3 | 8 | 2 | 9 |
| 30 ,, 13 | 3 | 2 | 2 | 2 |
| 30 ,, 18 | 3 | 8 | 2 | 8 |
| 30 ,, 20 | 3 | 10 | 2 | 11 |
| 30 ,, 22 | 4 | 3 | 3 | 0 |
| 30 ,, 24 | 4 | 4 | 3 | 1 |
| 30 ,, 25 | 4 | 6 | 3 | 2 |
| 32 ,, 18 | 4 | 0 | 2 | 11 |
| 36 ,, 20 | 4 | 6 | 3 | 6 |
| 36 ,, 24 | 5 | 3 | 3 | 8 |
| 36 ,, 28 | 5 | 9 | 4 | 0 |
| 37 ,, 13 | 4 | 3 | 3 | 2 |
| 38 ,, 14 | 4 | 9 | 3 | 4 |
| 40 ,, 24 | 6 | 4 | 5 | 3 |
| 40 ,, 28 | 7 | 4 | 5 | 9 |
| 40 ,, 30 | 8 | 4 | 6 | 3 |
| 42 ,, 24 | 6 | 9 | 5 | 6 |
| 42 ,, 28 | 7 | 10 | 6 | 3 |
| 44 ,, 34 | 10 | 0 | 8 | 0 |
| 48 ,, 36 | 11 | 6 | 9 | 6 |
| 50 ,, 30 | 11 | 0 | 8 | 8 |
| 50 ,, 40 | 13 | 0 | 10 | 6 |
| 54 ,, 36 | 13 | 0 | 10 | 6 |
| 56 ,, 44 | 17 | 6 | 13 | 4 |
| 60 ,, 40 | 16 | 6 | 13 | 3 |
| 72 ,, 54 | 33 | 0 | 25 | 0 |
| 88 ,, 52 | 38 | 0 | 28 | 6 |
| 94 ,, 58 | 44 | 0 | 35 | 0 |
| 106 ,, 70 | 56 | 0 | 47 | 0 |

# Academy Boards.

| | Best Quality. Sizes in Inches. | Thin. Each. s. d. | Thick. Each. s. d. |
|---|---|---|---|
| Academy Boards .. .. .. | 24½ by 18½ .. .. .. | 1 0 | 1 3 |
| Half ,, .. .. .. | 18½ ,, 12¼ .. .. .. | 0 6 | 0 8 |
| Quarto ,, .. .. .. | 12¼ ,, 9¼ .. . .. | 0 3 | 0 4 |
| Octavo ,, .. .. .. | 9¼ ,, 6 .. .. .. | 0 1½ | 0 2 |

# "Rough Surfaced" Academy Boards.

*These Boards are carefully abraded by hand, and offer an agreeable contrast to the smooth surface of the older kind.*

| Ordinary Sizes. Inches. | Each. s. d. | Panel Sizes.* Inches. | Each. s. d. | Inches. | Each. s. d. |
|---|---|---|---|---|---|
| Whole Size, 24½ by 18½ | 1 0 | 15 by 8 | 0 4 | 26 by 10 | 0 9 |
| Half ,, 18½ ,, 12¼ | 0 6 | 18 ,, 8 | 0 6 | 30 ,, 13 | 1 0 |
| Quarto ,, 12¼ ,, 9¼ | 0 3 | 18½ ,, 13 | 0 8 | 37 ,, 13 | 1 6 |
| Octavo ,, 9¼ ,, 6 | 0 1½ | 24 ,, 12 | 0 9 | | |

# Students' Academy Boards.

| Ordinary Sizes. Inches. | Each. s. d. | Panel Sizes.* Inches. | Each. s. d. | Inches. | Each s. d. |
|---|---|---|---|---|---|
| Whole Size, 24½ by 18½ | 0 8 | 15 by 8 | 0 3 | 26 by 10 | 0 8 |
| Half ,, 18½ by 12¼ | 0 4 | 18 ,, 8 | 0 4 | 30 ,, 13 | 0 10 |
| Quarto ,, 12¼ by 9¼ | 0 2 | 18½ ,, 13 | 0 6 | 37 ,, 13 | 1 3 |
| Octavo ,, 9¼ by 6 | 0 1 | 24 ,, 12 | 0 8 | | |

* These sizes correspond with those of Madame Vouga's and other panel studies.

# Millboards and Mahogany Panels.

## Prepared for Painting in Oil Colours.

Millboards, 44 sizes, 6-in. by 5-in. 6d., to 30-in. by 25-in. 9/-

Mahogany Panels, 42 sizes, 8-in. by 6-in. 1/3, to 36-in. by 28-in. 37/6.

# White Wood Panels.

## Unprepared.

**Eighteen sizes, 8-in. by 6-in., 3d., to 20-in. by 12-in., 1/-.**

# Oil Sketching Paper.

In four different surfaces, prepared to imitate the textures of Plain, Single Primed, Roman, and Ticken Canvases.

| | s. | d. |
|---|---|---|
| Prepared on Imperial Paper, 30 inches by 22 inches...per sheet | 0 | 9 |
| Ditto, ditto, Extra Thick 30 ,, by 22 ,, ... ,, | 1 | 0 |

# Oil Sketching Tablets.

(Millboards covered with Prepared Oil Sketching Paper).

| Size in inches. | Each. s. | d. | Size in inches. | Each. s. | d. | Size in inches. | Each. s. | d. |
|---|---|---|---|---|---|---|---|---|
| 5½ by 4½ | 0 | 2 | 11½ by 9 | 0 | 5 | 18 by 11½ | 0 | 8 |
| 7 ,, 5 | 0 | 2 | 12 ,, 8 | 0 | 5 | 20 ,, 14 | 0 | 9 |
| 8 ,, 6 | 0 | 3 | 12 ,, 9 | 0 | 5 | 24 ,, 12 | 1 | 0 |
| 9 ,, 5½ | 0 | 3 | 14 ,, 6¾ | 0 | 5 | 28 ,, 12 | 1 | 0 |
| 10 ,, 7 | 0 | 3 | 14 ,, 10 | 0 | 6 | 30 ,, 13 | 1 | 6 |
| 10 ,, 8 | 0 | 4 | 16 ,, 12 | 0 | 8 | 37 ,, 13 | 2 | 0 |
| | | | | | | 42 ,, 13½ | 2 | 3 |

Made in three surfaces—Plain, Single-primed, and Roman. Single-primed surface is sent unless otherwise ordered.

. THE .

# Winton Shaded Art Panels

## FOR PAINTING IN OIL COLOURS.

Prepared in Six Tints, viz.:—GREEN, ROSE, AZURE, BROWN, GREY, and OLIVE.

| Size in inches. | Each. s. | d. | Size in inches. | Each. s. | d. |
|---|---|---|---|---|---|
| 9 by 5½ ... ... ... ... | 0 | 6 | 18 by 10 ... ... ... ... | 1 | 6 |
| 10 ,, 7 ... ... ... ... | 0 | 8 | 20 ,, 10 ... ... ... ... | 1 | 6 |
| 12 ,, 8 ... ... ... ... | 1 | 0 | 20 ,, 12 ... ... ... ... | 1 | 9 |
| 14 ,, 6¾ ... ... ... ... | 1 | 0 | 20 ,, 14 ... ... ... ... | 1 | 9 |
| 14 ,, 10 ... ... ... ... | 1 | 3 | 24 ,, 12 ... ... ... ... | 2 | 0 |
| 16 ,, 8 ... ... ... ... | 1 | 3 | 28 ,, 12 ... ... ... ... | 2 | 6 |
| 30 ,, 13 inches, green, brown, grey, and olive only ... | | | | 3 | 6 |
| 37 ,, 13 ,, ,, ,, ,, ... ... | | | | 4 | 0 |
| 42 by 13½ ,, ,, ,, ,, ... ... | | | | 5 | 0 |

Other sizes, up to 20 in. wide, are made to order at proportionate prices.

The "Winton" Art Panels are manufactured and prepared solely by Winsor and Newton, Ltd. The surface is carefully shaded by hand and affords an especially suitable ground for painting Flowers, Fruit, &c., or copying Madame Vouga's Studies.

# Canvas Boards.

Millboards covered with Artists' Prepared Canvas.

Best Quality, 20 sizes, 7 in. by 5 in., 7d., to 20 in. by 14 in., 3/- each.
12 by 10½ in., 3/2; 42 by 10½ in., 6/6 each.

Second Quality 20 sizes, 7in. by 5in., 6d., to 20 in. by 14 in., 2/- each.

# Japanned Tin Plaques (Circular),

With rings at back.

Prepared for Painting in Oil Colours.

PLAIN.—Six Tints: Cream, Terra Cotta, Pale Blue, Pale Pink, Pale Green, and Black.

SHADED.—Three Tints: Brown, Green, and Grey.

| Diameter. | Plain. Each. s. d. | Shaded Each s. d. |
|---|---|---|
| 6 inches | 0 8 | — |
| 7 ,, | 0 10 | — |
| 8 ,, | 1 0 | 1 2 |
| 9 ,, | 1 2 | 1 4 |
| 10 ,, | 1 3 | 1 6 |
| 11 ,, | 1 5 | 1 9 |
| 12 ,, | 1 6 | 2 0 |
| 13 ,, | 2 0 | 2 6 |
| 14 ,, | 2 6 | 2 9 |
| 16 ,, | 3 6 | 4 0 |

# Solid Blocks for Painting in Oil Colours.

| Made of Thick Paper, 24 Surfaces. | Inches. | Blocks only. s. d. | Half Bound and with Protective Frames. s. d. |
|---|---|---|---|
| 16mo. Imperial | 7 by 5 .. each | 1 9 | 3 9 |
| 8vo ,, | 10 ,, 7 .. ,, | 3 0 | 6 3 |
| 4to Royal | 11½ ,, 9 .. ,, | 5 0 | 9 0 |
| 6mo Imperial | 14 ,, 6¾ .. ,, | 4 6 | 8 6 |
| 4to ,, | 14 ,, 10 .. ,, | 6 0 | 10 6 |

| Made of Extra Thick Paper, 18 Surfaces. | Inches. | Blocks only. s. d. | Half Bound and with Protective Frames. s. d. |
|---|---|---|---|
| 16mo Imperial | 7 by 5 .. each | 1 9 | 3 9 |
| 8vo ,, | 10 ,, 7 .. ,, | 3 0 | 6 3 |
| 4to Royal | 11½ ,, 9 .. ,, | 5 0 | 9 0 |
| 6mo Imperial | 14 ,, 6¾ .. ,, | 4 6 | 8 6 |
| 4to ,, | 14 ,, 10 .. ,, | 6 0 | 10 6 |
| 3mo ,, | 18 ,, 10 .. ,, | 8 6 | 16 0 |
| Half ,, | 20 ,, 14 .. ,, | 12 0 | 21 0 |

**These Blocks are made with Oil Sketching Paper of the four different surfaces described on Page 36. Single Primed Surface Blocks are sent unless otherwise ordered.**

# Drawing Papers.

MESSRS. WINSOR & NEWTON, Limited, pay particular attention to this department, and keep constantly on hand a very large and varied Stock of Seasoned First-class Drawing Papers, comprising all kinds required, including the "O.W." Hand-made Drawing Paper recently introduced and stamped "Guaranteed Pure Paper R.W.S."

## WHATMAN'S DRAWING PAPER.

| | Weight to Ream. | | Inches. | Per Sheet. s. | d. |
|---|---|---|---|---|---|
| Demy ... ... | 25 lbs. ... | Hotpressed and Not ... | 20 by 15½ | 0 | 1½ |
| Medium ... | 34 ,, ... | ,, ,, ... | 22 by 17½ | 0 | 2½ |
| Royal ... ... | 44 ,, ... | Hotpressed, Not and Rough | 24 ,, 19½ | 0 | 3 |
| Imperial ... | 72 ,, ... | ,, ,, ... | 30½ ,, 22 | 0 | 5 |
| Dble. Elephant | 133 ,, ... | ,, ,, ... | 40 ,, 26¾ | 0 | 10 |
| Antiquarian ... | 240 ,, ... | ,, ,, ... | 52½ ,, 30½ | 4 | 0 |

## WHATMAN'S "THICK" AND "EXTRA THICK" DRAWING PAPER.

| | Weight to Ream. | | Per Sheet s. | d. | *Artists' Per Sheet s. | d. |
|---|---|---|---|---|---|---|
| Royal ... | 60 lbs. ... | Hotpressed, Not, and Rough | 0 | 5 | — | |
| Imperial ... | 90 ,, ... | ,, ,, | 0 | 8 | 0 | 9 |
| ,, ... | 140 ,, ... | ,, ,, | 1 | 0 | 1 | 2 |
| ,, ... | 300 ,, ... | ,, ,, | — | | 2 | 6 |
| Dble. Elephant | 235 ,, ... | ,, ,, | 1 | 9 | 2 | 0 |

**Artists' Drawing Paper consists of Sheets carefully selected at the Mill.*

## "O.W." DRAWING PAPER.

*A Hand-made Paper, manufactured under the direction of the Royal Society of Painters in Water Colours.*

| | Weight to Ream. | | Per Sheet s. | d. |
|---|---|---|---|---|
| Imperial ... | 72 lbs., Nos. 1 and 4 Surfaces ... ... | | 0 | 5 |
| ,, ... | 90 ,, ,, 4 Surface ... ... ... | | 0 | 8 |
| ,, ... | 140 ,, ,, 4 ,, ... ... ... | | 1 | 0 |
| Dble. Elephant | 140 ,, ,, 4 ,, ... ... ... | | 1 | 0 |
| ,, ,, | 325 ,, ,, 40 ,, ... ... ... | | 2 | 3 |
| Antiquarian ... | 240 ,, ,, 4 ,, ... ... ... | | 4 | 0 |

## WINSOR & NEWTON'S

# "IMITATION STEINBACH" DRAWING PAPER.

*Suitable for Drawing in Water Colours, Pastel Crayons, Pencil and Charcoal, and for general Black and White Work.*

Imperial, 30 by 22½ in., 65 lbs. to ream ... ... ... 3/9 per quire.
Continuous, 54 inches wide ... ... ... ... ... 6d. per yard.

(Reduced prices for original rolls of 25, 50, and 100 yards).

# HOLLINGWORTH'S 'IMPROVED" DRAWING PAPER.

| | Weight to Ream. | | Inches | | Per Sheet s. | d. |
|---|---|---|---|---|---|---|
| Demy ... ... | 24 lbs., | Hotpressed and Not, | 20 by 15½ | ... | 0 | 1 |
| Medium ... | 32 ,, | ,, ,, | 22 ,, 17¾ | ... | 0 | 1½ |
| Royal ... ... | 42 ,, | ,, ,, | 24 ,, 19 | ... | 0 | 2 |
| Imperial ... | 72 ,, | ,, ,, | 30¼ ,, 22½ | ... | 0 | 3 |
| ,, ... ... | 90 ,, | ,, ,, | 30¼ ,, 22½ | ... | 0 | 4 |
| Dble. Elephant | 130 ,, | ,, ,, | 40 ,, 26¾ | ... | 0 | 6 |

# BEST MACHINE-MADE TINTED CRAYON PAPERS.

| | Weight to Ream. | | | | |
|---|---|---|---|---|---|
| Imperial ... | 90 lbs. | 33 Tints | 30 by 21½ | ... | 0 4 |
| Dble. Elephant | 144 ,, | 6 ,, | 40 ,, 27 | ... | 0 6 |

# MICHALLET FRENCH HAND-MADE CRAYON PAPER.

| | | Inches | Per Quire s. | d. |
|---|---|---|---|---|
| Royal | No. 1, White<br>Nos. 2 to 12, various Tints | 24 by 19 | ... 2 | 6 |

*Pattern Books of Tinted Crayon and other Drawing Papers may be had on application.*

## CARTRIDGE DRAWING PAPER.

| | Weight to Ream | Inches | Per Sheet. s. | d. | Per Quire s. | d. |
|---|---|---|---|---|---|---|
| SUPERFINE: | | | | | | |
| Students' .. .. .. | 60 lbs. | 30 by 22 .. | 0 | 2 | 3 | 0 |
| Imperial (Hotpressed and Not) | 78 ,, | 30 ,, 22 .. | 0 | 3 | 5 | 3 |
| FINE: | | | | | | |
| Medium .. .. .. | 30 lbs. | 22 by 17 .. | 0 | 1 | 1 | 3 |
| Royal .. .. .. | 48 ,, | 24 ,, 19 .. | 0 | 1½ | 2 | 3 |
| Thin Log .. .. .. | 38 ,, | 26 ,, 21 .. | 0 | 1 | 2 | 0 |
| Thick Log .. .. .. | 48 ,, | 26 ,, 21 .. | 0 | 1½ | 2 | 3 |
| Thin Engineers .. .. | 70 ,, | 30 ,, 22 .. | 0 | 2 | 3 | 6 |
| Thick Engineers .. .. | 90 ,, | 30 ,, 22 .. | 0 | 2½ | 4 | 6 |
| Double Elephant .. .. | 120 ,, | 40 ,, 27 .. | 0 | 3½ | 5 | 6 |
| GOOD: | | | | | | |
| Royal School of Art .. | 40 lbs. | 24 by 19 .. | 0 | 1 | 1 | 3 |
| Imperial School of Art .. | 60 ,, | 30 ,, 22 .. | 0 | 1 | 2 | 0 |
| Imperial White .. .. | 70 ,, | 30 ,, 22 .. | 0 | 1½ | 2 | 3 |

## CONTINUOUS CARTOON CARTRIDGE PAPER.

| | | Per Yard s. | d. |
|---|---|---|---|
| White Cartoon Paper, Thin | 36 inches wide .. .. .. | 0 | 4 |
| ,, ,, ,, Medium | 45 ,, .. .. .. | 0 | 6 |
| ,, ,, ,, Thin | 54 ,, .. .. .. | 0 | 7 |
| ,, ,, ,, Thick | 30 ,, .. .. .. | 0 | 7 |
| ,, ,, ,, ,, | 54 ,, .. .. .. | 1 | 2 |
| ,, ,, ,, ,, | 60 ,, .. .. .. | 1 | 2 |
| Tinted Cartoon Paper .. .. | 54 ,, .. .. .. | 0 | 10 |

(Three Tints—Buff, Stone, and French Gray).

# Transfer Papers.

IN SHEETS 22½ by 17½ inches.

Black, White, Red, Yellow, Blue, and Black Lead, prepared on one or both sides.

Prices from 1½d. to 3d. per sheet; 2/- to 5/- per quire.

# Tracing Papers.

IN SHEETS, 9 varieties, 30 by 20 inches, and 40 by 30 inches.

Prices 1½d. to 5d. per sheet.

ROLLS of 21 yards, 27 varieties, 30, 31, 40, 43, 44, and 60 inches wide.

4/6 to 20/- per roll.

***PATTERNS ON APPLICATION.***

# Solid Drawing Blocks.

MADE OF WHATMAN'S DRAWING PAPER.

| | Inches | * Series 2 20 Sheets s. d. | * Series 3 24 Sheets s. d. | *Series 3a 32 Sheets s. d. | * Series 4 32 Sheets s. d. |
|---|---|---|---|---|---|
| 32mo Imperial | 5 by 3½ each | 1 2 | 0 9 | 1 0 | 0 9 |
| 16mo Royal | 5½ ,, 4¼ ,, | — | 1 0 | 1 3 | 1 0 |
| 16mo Imperial | 7 ,, 5 ,, | 2 0 | 1 6 | 1 8 | 1 3 |
| 8vo Royal | 9 ,, 5½ ,, | 2 8 | 1 9 | 2 3 | 2 0 |
| 16mo Dble. Elept. | 9 ,, 6 ,, | 3 0 | | — | — |
| 8vo Imperial | 10 ,, 7 ,, | 3 3 | 2 6 | 3 0 | 2 3 |
| 4to Royal | 11½ ,, 9 ,, | 5 3 | 3 3 | 4 0 | 3 6 |
| 8vo Dble. Elept. | 12 ,, 9 ,, | 5 6 | — | — | — |
| 6mo Imperial | 14 ,, 6¾ ,, | 4 9 | 3 3 | 4 0 | 3 3 |
| 4to Imperial | 14 ,, 10 ,, | 6 6 | 4 9 | 6 0 | 4 6 |
| 3mo Imperial | 18 ,, 10 ,, | 9 0 | 6 9 | 8 3 | — |
| Half Royal | 18 ,, 11½ ,, | | 7 6 | 8 6 | — |
| 4to Dble. Elept. | 18 ,, 12 ,, | 11 0 | — | — | — |
| Half Imperial | 20 ,, 14 ,, | 12 6 | 10 0 | 12 6 | — |

## SOLID DRAWING BLOCKS.

WITH COVERS AND POCKETS.

MADE OF WHATMAN'S DRAWING PAPER.

| | Inches | HALF-BOUND COVERS. * Series 2 20 Sheets s. d. | * Series 3 24 Sheets s. d. | *Series 3a 32 Sheets s. d. | BROWN HOLLAND COVERS * Series 4 32 Sheets s. d. |
|---|---|---|---|---|---|
| 32mo Imperial | 5 by 3½ each | 2 0 | 1 6 | 1 8 | 1 6 |
| 16mo Royal | 5½ ,, 4¼ ,, | — | 1 9 | 2 0 | 1 9 |
| 16mo Imperial | 7 ,, 5 ,, | 3 0 | 2 3 | 2 8 | 2 2 |
| 8vo Royal | 9 ,, 5½ ,, | 3 9 | 3 0 | 3 6 | 2 9 |
| 16mo Dble. Elept. | 9 ,, 6 ,, | 4 0 | | — | — |
| 8vo Imperial | 10 ,, 7 ,, | 4 9 | 4 0 | 4 6 | 3 6 |
| 4to Royal | 11½ ,, 9 ,, | 7 6 | 5 3 | 6 0 | 5 3 |
| 8vo Dble. Elept. | 12 ,, 9 ,, | 8 0 | — | — | — |
| 6mo Imperial | 14 ,, 6¾ ,, | 7 0 | 5 3 | 6 0 | 5 0 |
| 4to Imperial | 14 ,, 10 ,, | 9 0 | 6 9 | 8 0 | 6 6 |
| 3mo Imperial | 18 ,, 10 ,, | 13 6 | 11 0 | 12. 6 | — |
| Half Royal | 18 ,, 11½ ,, | — | 12 0 | 13 0 | — |
| 4to Dble. Elept. | 18 ,, 12 ,, | 15 9 | — | — | — |
| Half Imperial | 20 ,, 14 ,, | 18 0 | 16 0 | 18 6 | — |

*** Series 2 is made of Extra Thick Paper; Series 3 of Thick Paper Series 4 of Imperial 72 lbs. Paper.**

## SOLID BLOCKS. Series 8.
## FOR WATER COLOUR SKETCHING.

MADE OF MACHINE-MADE PAPER, NOT SURFACE. 20 SHEETS.

9½ inches by 6 ... each 6d. 12 inches by 9½ ... each 1s.

## SOLID DRAWING BLOCKS. Series 9 and 11.

| | | | 25 Sheets. | 32 Sheets. |
|---|---|---|---|---|
| | | | *d.* | *d.* |
| 32mo Imperial | 5 by 3½ | each | 0 6 | 0 6 |
| 16mo Imperial | 7 ,, 5 | | 0 6 | 0 8 |
| 8vo Royal | 9 ,, 5½ | | 0 9 | 0 9 |
| 8vo Imperial | 10 ,, 7 | | 1 0 | 1 0 |
| 4to Royal | 11½ ,, 9 | | 1 6 | 1 6 |
| 6mo Imperial | 14 ,, 6¾ | | | 1 9 |
| 4to Imperial | 14 ,, 10 | | 2 0 | 2 0 |

* SERIES 9 IS MADE OF ENGINEER'S CARTRIDGE PAPER, AND SERIES 11 OF THICK IMITATION STEINBACH PAPER.

## SCHOOL SOLID DRAWING BLOCKS. Series 10.

MADE OF GOOD WHITE CARTRIDGE PAPER. 20 SHEETS.

10 inches by 7 ... each 6d. 14 inches by 10 ... each 1s.

## SCHOOL SKETCH BOOKS. Series 29.

(12 inches by 9½).

With Cloth Backs and Stiff Marble Paper Sides, containing 20 leaves of Cartridge Drawing Paper ... ... each *s.* 1 *d.* 0

## SKETCH BOOKS. Series 30 and 35.

BOUND IN BROWN HOLLAND, WITH ELASTIC BAND TO FASTEN.

| Inches | Series 30* | *s.* | *d.* | Series 35* | *s.* | *d.* |
|---|---|---|---|---|---|---|
| 5 by 3½, | 40 leaves ... each | 0 | 6 | ... 40 leaves ... each | 0 | 6 |
| 7 ,, 4½, | 40 ,, ... ,, | 1 | 0 | ... † 40 ,, ... ,, | 0 | 9 |
| 9 ,, 5½ | 32 ,, ... ,, | 1 | 3 | ... 40 ,, ... ,, | 1 | 0 |
| 10 ,, 7, | 32 ,, ... ,, | 1 | 6 | ... 40 ,, ... ,, | 1 | 3 |
| 11½ ,, 9, | 32 ,, ... ,, | 2 | 0 | | | |
| 14½ ,, 10, | 32 ,, ... ,, | 2 | 6 | | | |

* SERIES 30 IS MADE OF GOOD CARTRIDGE DRAWING PAPER, AND SERIES 35 OF THICK IMITATION STEINBACH PAPER.

† *Measures 7 by 5 inches.*

## SKETCHERS' NOTE BOOKS. Series 33.

MADE OF GOOD WHITE PAPER, SUITABLE FOR RAPID PENCIL SKETCHES, 80 LEAVES IN EACH BOOK, BROWN HOLLAND COVERS.

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. 1 | ... | 5½ by 4 | ... | ... | ... | ... | ... | ... | ... | each | 0 | 9 |
| ,, 2 | ... | 8¼ ,, 5½ | ... | ... | ... | ... | ... | ... | ... | ,, | 1 | 3 |
| 3 | ... | 11 ,, 8½ | ... | ... | ... | ... | ... | ... | ... | ,, | 2 | 0 |

# SOLID BLOCKED SKETCH BOOKS.

*Made as Sketch Books, but with the three outer edges fastened as ordinary Solid Blocks.*

MADE OF WHATMAN'S DRAWING PAPER.

| | Half-bound Leather Backs, cloth sides. | | Brown Holland Covers. | | | |
|---|---|---|---|---|---|---|
| | Series 21 20 Leaves | Series 22 32 Leaves | Series 21a 20 Leaves | Series 22a 32 Leaves | Series 23 24 Leaves |
| | s. d. | s. d. | s. d. | s. d. | s. d. |
| 32mo Imperial ... | each — | 1 6 | — | 1 3 | 1 0 |
| 24mo ,, ... | ,, — | 2 0 | — | 1 8 | 1 3 |
| 16mo ,, ... | ,, 2 6 | 2 6 | 2 3 | 2 3 | 1 6 |
| 8vo Royal ... | ,, 3 6 | 3 3 | 3 0 | 3 0 | 2 0 |
| 12mo Imperial ... | ,, | 3 3 | — | 3 0 | 2 0 |
| 8vo ,, ... | ,, 4 3 | 4 3 | 3 9 | 3 9 | 2 6 |
| 4to Royal ... | ,, — | 6 0 | — | 5 3 | 3 6 |
| 4to Imperial ... | ,, 7 6 | 7 6 | 6 9 | 6 9 | 5 0 |

Series 21 & 21a are made of Extra Thick Paper; Series 22 & 22a of Thick Paper, and Series 23 of Imperial 72 lbs. Paper.

# SKETCH BOOKS.

MADE OF WHATMAN'S OR TINTED CRAYON PAPERS,

EACH CONTAINING 30 LEAVES.

| | Inches | | Half-bound Leather Backs, cloth sides. Series 24 | Series 25 | Brown Holland Covers. Series 26 | Series 27. |
|---|---|---|---|---|---|---|
| | | | s. d. | s. d. | s. d. | s. d. |
| 32mo Imperial | 5 by $3\frac{1}{2}$ ... | each | 1 0 | 0 11 | 0 9 | 0 8 |
| 24mo ,, | 7 ,, $3\frac{1}{4}$ ... | ,, | 1 3 | 1 2 | 1 0 | 1 0 |
| Pocket Size | 7 ,, $4\frac{1}{2}$ ... | ,, | 1 6 | 1 4 | 1 3 | 1 2 |
| 16mo Imperial | 7 ,, 5 ... | ,, | 1 6 | 1 4 | 1 3 | 1 2 |
| 8vo Royal | 9 ,, $5\frac{1}{2}$ ... | ,, | 2 0 | — | 1 6 | — |
| 12mo Imperial | 10 ,, $4\frac{1}{2}$ ... | ,, | 2 6 | 2 3 | 1 9 | 1 6 |
| 8vo ,, | 10 ,, 7 ... | ,, | 3 0 | 2 9 | 2 3 | 2 0 |
| 4to Royal | $11\frac{1}{2}$ ,, 9 ... | ,, | 3 9 | — | 3 0 | — |
| 4to Imperial | $14\frac{1}{2}$ ,,10 ... | ,, | 5 3 | 4 9 | 4 6 | 4 0 |

Series 24 and 26 are made of Whatman's Paper; Series 25 and 27 of Tinted Crayon Paper.

# BLACK and WHITE SKETCH BOOKS. Series 34.

*Made of Extra Thin Bank Paper, suitable for Pencil, Pen, or Colour Drawings. Each Book contains 91 Leaves, perforated on interior edge.*

| Inches | | s. d. | Inches | | s. d. |
|---|---|---|---|---|---|
| No. 1, $3\frac{1}{2}$ by 3 ... | each | 0 5 | No. 4, 8 by 5 ... | each | 1 0 |
| ,, 2, 5 ,, $3\frac{1}{4}$ ... | ,, | 0 8 | ,, 5, 10 ,, 8 ... | ,, | 1 6 |
| ,, 3, $7\frac{1}{4}$ ,, $4\frac{1}{2}$ ... | ,, | 0 10 | | | |

## SCHOOL DRAWING BOOKS.

MADE OF BEST CARTRIDGE DRAWING PAPER,
WITH ILLUSTRATED TINTED PAPER COVERS.

20 LEAVES IN EACH BOOK.

| | Inches. | | s. | d. | Interleaved with Tissue s. | d. |
|---|---|---|---|---|---|---|
| 8vo Royal ... | 9 by 5½ ... ... ... | each | 0 | 6 | 0 | 7 |
| 8vo Imperial ... | 10 ,, 7 ... ... ... | ,, | 0 | 9 | 0 | 10 |
| 4to Royal ... | 11½ ,, 9 ... ... ... | ,, | 1 | 0 | 1 | 1 |
| 4to Imperial ... | 14½ ,, 10 ... ... ... | ,, | 1 | 6 | 1 | 8 |

## STUDENTS' DRAWING BOOKS.

MADE OF SUPERIOR CARTRIDGE PAPER.
TINTED PAPER COVERS.

**NEW SERIES.**

| Nos. | Inches. | | | | s. |
|---|---|---|---|---|---|
| 11 | 9 by 5½ ... ... | 8 leaves ... ... | | each | 0 |
| 12 | 10 ,, 7 ... ... | 12 ,, ... ... ... | | ,, | 0 |
| 13 | 11½ ,, 9 ... ... | 16 ,, ... ... ... | | ,, | 0 |
| 14 | 14½ ,, 10 ... ... | 16 ,, ... ... ... | | ,, | 0 |
| 15 | 14½ ,, 10 ... ... | 24 ,, ... ... ... | | ,, | 0 |
| 16 | 14½ ,, 10 .. ... | 40 ,, ... ... ... | | ,, | 0 |
| 17 | 14½ ,, 10 ... ... | 12 ,, interleaved tissue | | ,, | 0 |
| 18 | 14½ ,, 10 ... ... | 20 ,, ,, | | ,, | 0 |
| 19 | 14½ ,, 10 ... ... | 30 ,, ... ,, .. | | ,, | 0 |

*In ordering it is only necessary to give the Number prefixed to each size.*

# Gilt Bevelled Edge Cards.

IN BOXES OF 50.

| Inches. | | Whatman's Surface s. | d. | Assorted Tints & Surfaces s. | d. | Imitation Canvas Surface for Oil Painting s. | d. |
|---|---|---|---|---|---|---|---|
| 4½ by 3 ... | ... per Box | 3 | 0 | 3 | 0 | 4 | 0 |
| 5 ,, 3½ ... | ... ,, | 4 | 0 | 4 | 0 | 5 | 0 |
| 5¼ ,, 4 ... | ... ,, | 4 | 6 | 4 | 6 | 6 | 0 |
| 6 ,, 4½ ... | ... ,, | 5 | 6 | 5 | 6 | 7 | 0 |

*The above are also put up in boxes, containing an assortment of sizes at 1s. each.*

## WATER COLOUR SKETCHING BOARDS.

MOUNTING BOARDS COVERED WITH WHATMAN'S PAPER ON ONE SIDE.

*Hotpressed, Not, and Rough Surfaces.*

| | Inches | Each s. | Each d. | | Inches | Each s. | Each d. |
|---|---|---|---|---|---|---|---|
| 16mo Imperial | 7 by 4⅜ | 0 | 1 | 4to Imperial ... | 14½ by 10⅝ | 0 | 5 |
| 8vo Royal ... | 9½ ,, 5⅞ | 0 | 1½ | Half Royal ... | 18¼ ,, 11½ | 0 | 6 |
| 6mo Royal ... | 11½ ,, 6 | 0 | 2 | Half Imperial | 21¼ ,, 14½ | 0 | 9 |
| 8vo Imperial... | 10⅝ ,, 7¼ | 0 | 2½ | Royal ... ... | 23 ,, 18¼ | 1 | 0 |
| 4to Royal ... | 11½ ,, 9½ | 0 | 3 | Imperial ... | 29 ,, 21¼ | 1 | 6 |
| 6mo Imperial | 14¼ ,, 7 | 0 | 3 | | | | |

Also covered with Whatman's "Special Surface" Drawing Paper for Black and White Drawing. Prices same as above.

## "BLACK AND WHITE" BOARDS.

Made in one thickness only of Paper specially selected and manufactured for this purpose.
Suitable for either Pen, Wash, or Colour.

| | Inches | Per packet of 6 Boards s. | Per packet of 6 Boards d. | | Inches | Per packet of 6 Boards s. | Per packet of 6 Boards d. |
|---|---|---|---|---|---|---|---|
| No. 1 ... | 7⅛ by 5¼ | 0 | 6 | No. 4 ... | 14½ by 10½ | 1 | 9 |
| ,, 2 ... | 10½ ,, 7½ | 1 | 0 | ,, 5 ... | 18½ ,, 11⅝ | 2 | 3 |
| ,, 3 ... | 11¾ ,, 9½ | 1 | 3 | ,, 6 ... | 23½ ,, 18½ | 4 | 0 |

## BRISTOL BOARDS.

| | BEST QUALITY. | | 2 sheet s. | 2 sheet d. | 3 sheet s. | 3 sheet d. | 4 sheet s. | 4 sheet d. | 6 sheet s. | 6 sheet d. |
|---|---|---|---|---|---|---|---|---|---|---|
| Foolscap ... | 15¼ inches by 12½ | each | 0 | 2 | 0 | 3 | 0 | 4 | 0 | 6 |
| Demy ... ... | 18¾ ,, 14½ | ,, | 0 | 3 | 0 | 5 | 0 | 6 | 0 | 9 |
| Medium ... | 21 ,, 16¾ | ,, | 0 | 4 | 0 | 6 | 0 | 8 | 1 | 0 |
| Royal ... ... | 22½ ,, 18 | ,, | 0 | 6 | 0 | 8 | 1 | 0 | 1 | 4 |
| Imperial ... | 28½ ,, 21 | ,, | 0 | 10 | 1 | 3 | 1 | 8 | 2 | 6 |

## CUT-OUT MOUNTS, &c.

**Messrs. WINSOR & NEWTON, Limited, pay particular attention to Cut-out Mounts; they also undertake to mount Drawings, &c., intrusted to them, with care and despatch.**

# Mounting Boards.

WHITE OR TINTED (15 TINTS).

## Series 1—EXTRA SUPERFINE.

| | | | | ¼ sheet s. d. | ½ sheet s. d. | 6 sheet s. d. | 8 sheet s. d. |
|---|---|---|---|---|---|---|---|
| Half Imperial | 21½ inches by | 14½ | each | 0 3 | 0 4 | 0 6 | — |
| Royal ...24 | ,, | 19 | ,, | 0 4 | 0 6 | 0 8 | — |
| Imperial ...29 | ,, | 21¾ | ,, | 0 6 | 0 8 | 1 0 | 1 4 |
| Atlas ...33¼ | ,, | 26 | ,, | — | 1 4 | 2 0 | 2 8 |
| Dble.Elephant 39 | ,, | 26 | ,, | — | 1 6 | 2 3 | 3 2 |

## Series 2—LONDON.

| | | | | ¼ sheet s. d. | 6 sheet s. d. | 8 sheet s. d. |
|---|---|---|---|---|---|---|
| Half Imperial | 21¾ inches by | 14½ | each | 0 3 | 0 4 | 0 5 |
| Royal ... | 24 ,, | 19 | ,, | 0 4 | 0 5 | 0 7 |
| Imperial ... | 29 ,, | 21¾ | ,, | 0 5 | 0 7 | 0 9 |
| Atlas ... | 33¾ ,, | 26 | ,, | — | 1 0 | 1 3 |
| Dble. Elephant | 39 ,, | 26 | ,, | — | 1 2 | 1 6 |
| Dble. Imperial | 43 ,, | 29 | ,, | — | 1 6 | 1 9 |
| *Leviathan | 43 ,, | 34 | ,, | — | 3 0 | 3 9 |
| *Antiquarian | 53 ,, | 35 | ,, | — | 7 0 | 9 0 |

## Series 3—FINE.

| | | | | ¼ sheet s. d. | 6 sheet s. d. | 8 sheet s. d. |
|---|---|---|---|---|---|---|
| Half Imperial | 21¾ inches by | 15½ | each | 0 2 | 0 3 | 0 4 |
| Royal ... | 24 ,, | 19 | ,, | 0 3 | 0 4 | 0 5 |
| Imperial ... | 31 ,, | 21¾ | ,, | 0 4 | 0 6 | 0 8 |

## Series 4—SCHOOL.

| | | | | | Ordinary s. d. | Best s. d. |
|---|---|---|---|---|---|---|
| Royal ... | 24 inches by | 19, | Medium Thick ... | each | 0 2 | 0 2½ |
| ,, ... | 24 ,, | 19, | Thick ... ... | ,, | 0 3 | 0 3½ |
| Imperial | 31 ,, | 21, | Medium Thick ... | ,, | 0 3 | 0 3½ |
| ,, | 31 ,, | 21, | Thick ... ... | ,, | 0 4 | 0 5 |

* Not made in tints, 55, 56, 59, 62, 65, 66, 67 and 68.

*Patterns of Tints may be had on application.*

## WINSOR & NEWTON'S

# Nonpareil Drawing Pencils.

**HEXAGON ORANGE-POLISHED CEDAR. 4d. each.**

These are a new variety of Drawing Pencils made from carefully selected BRITISH GRAPHITE. They may be used with confidence for all Drawings in which a high-class Drawing Pencil reliable for smoothness in working and evenness of colour is a *sine qua non*.

Nonpariel Drawing Pencils are manufactured in twelve degrees, viz.: HHHHHH, HHHHH, HHHH, HHH, HH, H, F, HB, B, BB, BBB, and BBBB, and stamped in gold—"Nonpariel Drawing Pencil, Winsor & Newton, Ltd."

## WINSOR & NEWTON'S

# Drawing Pencils.

PENNY Pencils of good quality, for Schools and ordinary use, Round and Hexagon.

TWOPENNY Pencils, Round and Hexagon, strongly recommended for their richness of colour and variety and evenness of tint.

SIXPENNY Cumberland Pencils, made expressly for the use of Artists, with an extra thickness of lead.

**1s.** Boxes, containing Six Drawing Pencils, Four Drawing Pins, India-Rubber, and a Stick each, of Red, White and Black Crayon.

**2s.** Boxes, containing Six Best Engineer's Hexagon Natural Polished Drawing Pencils of Hard and Suitable Degrees.

## WINSOR & NEWTON'S

# Sketching Pencils.

Ever-pointed, four inches in length with extra thick Lead ...each, **6d.**
Re-fills for above in boxes containing three Leads ... per box, **6d.**

# Coloured Pencils.

Blue, Red, Green and combined Blue and Red Pencils in Coloured Polished Cedar. Best quality, **3d.**; Second quality, **2d.** each.

COMPASS PENCILS, plain Cedar, three sizes, two degrees, per dozen, **4d.**

# Creta Levis Pencils,

## FORTY-EIGHT TINTS.

In Coloured Polished Cedar ... ... ... ... ... 3d. each.
Boxes containing from 6 to 48 Pencils, assorted tints, 2/- to 13/6 per box.

# Lefranc's Soft Pastel Crayons.

## ASSORTED COLOURS.

NOTICE. These Crayons, being fragile, are LIABLE to breakage in transit, and can only be sent at Purchaser's risk. Their utility, however, is not impaired by their being in pieces.

| | s. | d. | | s. | d. |
|---|---|---|---|---|---|
| Box containing 26 Crayons | 3 | 6 | Box containing 100 Crayons | 15 | 0 |
| ,, ,, 46 ,, | 4 | 6 | ,, ,, 132 ,, | 20 | 0 |
| ,, ,, 56 ,, | 6 | 6 | ,, ,, 156 ,, | 23 | 3 |
| ,, ,, 62 ,, | 9 | 6 | ,, ,, 200 ,, | 33 | 0 |

# Round Pointed Pastel Crayons

| IN ROUND FANCY CARDBOARD BOXES. | Best Quality. s. | d. | Second Quality s. | d. |
|---|---|---|---|---|
| Box containing 6 assorted Crayons .. .. .. | — | | 0 | 2 |
| ,, ,, 12 ,, ,, .. .. .. | 0 | 9 | 0 | 3 |
| ,, ,, 18 ,, ,, .. .. .. | 1 | 3 | 0 | 4 |
| ,, ,, 24 ,, ,, .. .. .. | 1 | 9 | 0 | 6 |
| ,, ,, 30 ,, ,, .. .. .. | 2 | 3 | 0 | 9 |
| ,, ,, 36 ,, ,, .. .. .. | 2 | 9 | 1 | 0 |
| ,, ,, 48 ,, ,, .. .. .. | 3 | 3 | — | |

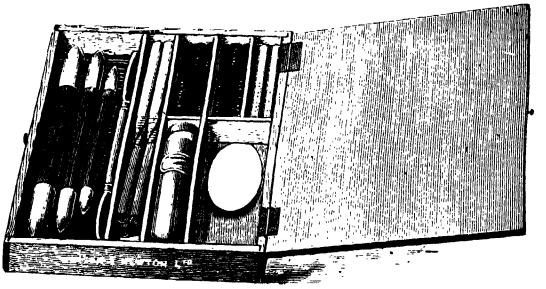
# Crayons and Chalks.

Conte Crayons, Black, Red, and White, Round and Square, in Boxes of 12 sticks .. .. .. .. .. each 6d. to 1/3.
Ditto in Cedar .. .. .. .. ,, 2d. & 3d.
Conte Stumping Chalk in Tinfoil .. .. .. per stick, 3d., 4d., & 6d.
,, ,, ,, in Glass Bottles .. .. per bottle, 6d.
Lemoine's White Crayons .. per Box of 12, Square 6d., Round 9d.
Chalk, Parmenter's Round White .. .. .. per gross Box, 9d.
,, ,, ,, Enamelled .. .. .. ,, ,, 1/-.
,, Coloured Demonstration, assorted colours, per box of 12, 6d.

CHARCOAL, in Bundles and in Boxes, various sizes and qualities.
STUMPING PALETTES, Oval, lined Chamois Leather .. each 1/-

# Thumb-hole Palette Chalk Box

FOR STUDENTS, SCHOOLS OF ART, &c.



STUMPING PALETTE.

Size of box when open, 10½ by 6¾ inches.
Ditto when closed, 6¾ ,, 5¼ ,,

The Lid of this Box is covered inside with Chamois Leather, which forms a Stumping Palette, and the thumb-hole is arranged to allow the Box being held on the hand as easily as an ordinary Palette.

The Box contains—Four each Nos. 1, 2, and 3 Square Black Conte Crayons; Two each Nos. 1 and 2 Lemoine's Round White Crayons; a Bottle of Stumping Chalk (Velours à Sauce); Two White Paper Stumps; One No. 2 White Leather Stump; Four each White and Gray Tortillons and a Portcrayon.

The Box, complete, weighs under 8 oz.

**Fitted complete, 3s. 6d.; empty, 2s.**

# The "Handy" Chalk Box.

The sliding lid of the Box is lined with Chamois Leather, and fitted with a thumb-strap, forming a convenient Stumping Palette.

The Box contains—Six Black and Four White Conté Crayons; a Stick of Stumping Chalk; Two White Paper Stumps; Six Tortillons; a Brass Portcrayon and a Drawing Pencil.

**Fitted complete, 1s. 6d. Empty, 1s.**

# Conté Leather Stumps.

(WHITE OR CHAMOIS LEATHER).

| | | | s. | d. | | | | s. | d. |
|---|---|---|---|---|---|---|---|---|---|
| No. 1 | ... | per dozen | 1 | 6 | No. 5 | ... | per dozen | 3 | 3 |
| ,, 2 | ... | ,, | 1 | 9 | ,, 6 | ... | ,, | 4 | 0 |
| ,, 3 | ... | ,, | 2 | 0 | ,, 7 | ... | ,, | 4 | 6 |
| ,, 4 | ... | ,, | 2 | 6 | ,, 8 | ... | ,, | 5 | 6 |

# Conté Paper Stumps.

| | | | Gray | | White | | | | Gray | | White | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | s. | d. | s. | d. | | | s. | d. | s. | d. |
| No. 1 | ... | per dozen | 0 | 4 | 0 | 6 | No. 5 | per dozen | 0 | 8 | 0 | 11 |
| ,, 2 | ... | ,, | 0 | 5 | 0 | 7 | ,, 6 | ,, | 0 | 9 | 1 | 0 |
| ,, 3 | ... | ,, | 0 | 6 | 0 | 8 | ,, 7 | ,, | 0 | 11 | 1 | 3 |
| ,, 4 | ... | ,, | 0 | 6 | 0 | 9 | ,, 8 | ,, | 1 | 0 | 1 | 6 |

# Conté Tortillons.

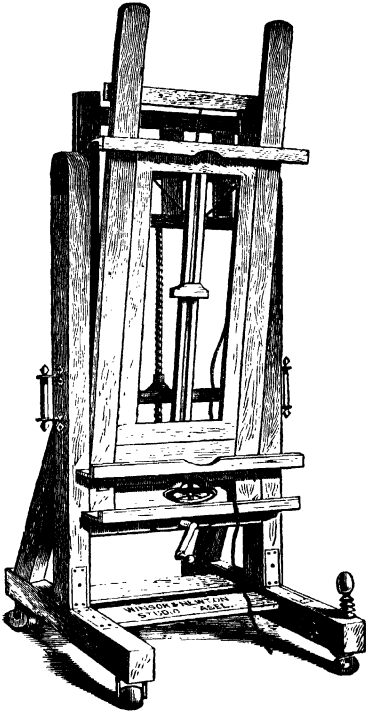
| | | | | | Per Bundle. | |
|---|---|---|---|---|---|---|
| | | | | | s. | d. |
| Gray Paper | ... | ... | ... | (in bundles of 1 dozen) | 0 | 1½ |
| White Paper | ... | ... | ... | ,, ,, | 0 | 2 |
| ,, large size | ... | ... | ... | ,, ,, | 0 | 3 |
| Tissue Paper | .. | ... | ... | ,, ,, | 0 | 3 |

# India Rubber.

| | per lb. |
|---|---|
| Best Para (Bottle) Rubber, cut to various sizes ... | 12 0 |
| Best White Soft Rubber, 6, 12, 18, 24, 36, and 72 pieces to lb. | 5 6 |
| Best Stationer's Rubber, 6, 12, 18, 24, 36, and 72 pieces to lb. | 7 0 |
| White School Rubber, 12, 16, 30, and 60 pieces to lb. ... | |
| Artists' Rubber Extra Quality, 8, 12, 16, 24, and 48 pieces to lb. | 4 6 |
| Kneaded Rubber, 20 pieces to lb. ... ... ... .. ... | 5 0 |
| Pencil Pointed Rubber ... . | in sticks, each 1d., 2d., 3d., and 4d. |
| Nigrivorine Rubber, doubled pointed ... | in sticks, each 1d., 2d., and 3d. |
| Ink and Pencil Erasers ... ... ... ... ... ... | each 4d. |
| Webster's Chalk Erasers ... ... ... ... ... | each 6d. |

# Improved Studio Easels.

WINSOR & NEWTON'S IMPROVED STUDIO EASEL will carry canvases of any size to 9 feet 6 inches in height. The arrangement for projecting a canvas in a forward position is simple and effective; the Easel has a screw winding-up movement that is managed with the utmost facility, and which raises with ease a framed Picture or Canvas of considerable weight.




| | Each £ s. d |
|---|---|
| SMALL STUDIO EASEL, 5 feet high, which will carry a Canvas 7 feet high. | |
| Stained Deal .. | 11 11 0 |
| Polished Oak .. | 14 14 0 |
| MIDDLE STUDIO EASEL, 6 feet high, which will carry a Canvas 8 feet high. | |
| Stained Deal .. | 12 12 0 |
| Polished Oak .. | 15 15 0 |
| LARGE STUDIO EASEL, 7 feet high, which will carry a Canvas 9½ feet high. | |
| Stained Deal .. | 13 13 0 |
| Polished Oak .. | 17 17 0 |

# Polished Oak Studio Easels.

**G** 7½ feet high, with screw winding-up movement .. .. £5 0 0
**H** Ditto ditto and forward movement £8 0 0

# Winsor and Newton's Easels.

## SKETCHING EASELS.

| No. | | EACH. £ | *s.* | *d* |
|---|---|---|---|---|
| 1. | Polished Stained Pine Sketching Easel with sliding adjustable Legs, and Brass Arm which holds sketch firmly at any angle, 6 feet high open, 41 inches when closed ... ... ... ... ... ... Also supplied in natural polished Pine at the same price. | 1 | 2 | 0 |
| 1A. | American White-Wood Sketching Easel, with sliding adjustable Legs, 6 feet high open, 41 inches closed ... | 0 | 11 | 0 |
| | Ditto ditto Polished ... | 0 | 14 | 0 |
| 1B. | The "Amateur" Bamboo Sketching Easel, 4 feet high, (the lightest Easel made) ... ... ... ... | 0 | 5 | 6 |
| 2. | Folding Sketching Easel, American White Wood, 4 feet 2 inches high ... ... ... ... ... | 0 | 2 | 6 |
| 2A. | Superior Folding Sketching Easel, 4 feet 2 inches high ... | 0 | 4 | 0 |
| 2B. | Ditto ditto ditto, 4 ,, 2 ,, ,, with self-adjusting springs to fasten each leg ... | 0 | 6 | 6 |
| 2C. | Ditto ditto 5 feet high ditto | 0 | 8 | 0 |
| 2D. | Sketching Easel, with sliding adjustable legs, Brass fittings and rack, 5 feet high, 36 inches when closed | 0 | 12 | 6 |
| 20. | The "Walking-Stick" Sketching Easel, Polished Oak. Patent application No. 9096. The most compact Easel made, practical and efficient. It serves the purposes of a Walking Stick when closed, and an Easel when open. The wire pegs for holding the Canvas are contained, when not in use, in grooves cut on the inside of the back leg ... ... ... | 0 | 5 | 6 |
| 22. | The "Fearnside" Sketching Easel, Deal. Patent application No. 23209. A light folding Easel, very compact and portable, 4 feet high open, 30 inches when closed, weight 2 lbs. ... ... ... | 0 | 5 | 0 |
| 23 * | The "Radial" Sketching Easel, stained and polished Pine. Heath's Patent. 4 feet 6 inches high open, 24 inches when closed ... ... ... ... | 0 | 14 | 0 |
| 24.* | Ditto, ditto, 6 feet high, 30 inches when closed | 0 | 16 | 0 |

(No. 23 is suitable for carrying on the handle-bars of a bicycle, and was originally made for that purpose).

* *Illustrated descriptive pamphlet of the "Radial" Easels post free on application.*

# Winsor and Newton's Easels.

## STANDING EASELS.

| No. | | Each. £ | s. | d. |
|---|---|---|---|---|
| 3A. | Framed Rack Easel, Deal ... ... 5 feet 6 inches high | 0 | 9 | 6 |
| 4. | Closing Easel, Deal ... ... ... ... 6 feet high | 0 | 7 | 0 |
| 4B. | ,, ,, Spruce, inexpensive, for students Ditto | 0 | 3 | 9 |
| 4C. | ,, ,, ,, ... ... ... 4 feet 6 inches high | 0 | 3 | 0 |
| 5. | ,, ,, Mahogany ... .. ... 6 feet high | 0 | 15 | 0 |
| 6. | Framed Easel, Deal ... ... ... ... Ditto | 0 | 10 | 6 |
| 7. | ,, ,, Mahogany ... ... ... Ditto | 1 | 1 | 0 |
| 10. | Rack Easel, Mahogany, with tray ... ... Ditto | 1 | 17 | 6 |
| 11. | ,, ,, ,, with brush box ... Ditto | 2 | 10 | 0 |
| 12. | ,, Academy Easel, Mahogany ,, ... ... Ditto | 3 | 1 | 6 |
| 13. | ,, Corbould ,, ,, ,, ... ... Ditto | 3 | 15 | 0 |
| 14. | ,, ,, ,, ,, ,, and desk Ditto | 4 | 15 | 0 |
| 15. | Dwarf Rack Easel, Deal, 4 feet high, the rack heightening the Easel to 6 feet 6 inches ... ... ... ... ... | 1 | 10 | 0 |
| 16. | Ditto, Mahogany Ditto ... ... ... ... ... | 2 | 5 | 0 |
| 17. | Rack Easel, Beech, with forward movement, 6 feet high | 1 | 15 | 0 |
| 18A. | The "Radial" Students' Easel, Deal ... ... ... | 1 | 8 | 0 |
| 18B. | ,, ,, ,, ,, ,, with floor block and screw in place of legs ... ... ... ... ... | 1 | 8 | 0 |

*Illustrated descriptive pamphlet of the "Radial" Easels post free on application.*

## TABLE EASELS.

| No. | | s. | d. |
|---|---|---|---|
| 30. | Deal, 18 inches high ... ... ... ... ... ... | 1 | 3 |
| 31. | ,, 21 ,, ,, .. ... ... ... ... ... | 1 | 6 |
| 32. | ,, 24 ,, ,, ... ... ... ... ... ... | 1 | 9 |

## PATENT HATHERLEY EASELS.

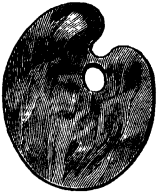
| | s. | d. | | s. | d. |
|---|---|---|---|---|---|
| A 15 inches high ... | 2 | 6 | B 45 inches high ... | 6 | 6 |
| AA 15 ,, ,, for music | 3 | 0 | C 56 ,, ,, ... | 7 | 6 |

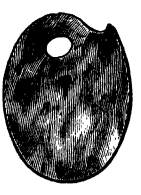
D Studio Easel, 6 feet high ... 8s. 6d.

# Palettes.

## SPANISH MAHOGANY AND OTHER WOODS.

No. 1 Shape.





No. 4 Shape.

No. 4 is only made in 18, 20, 22, and 24-inch Palettes.

### Spanish Mahogany.

| Length. | | | s. | d. |
|---|---|---|---|---|
| 8 inches | ... | each | 0 | 9 |
| 9 ,, | ... | ,, | 1 | 0 |
| 10 ,, | ... | ,, | 1 | 3 |
| 11 ,, | ... | ,, | 1 | 6 |
| 12 ,, | ... | ,, | 1 | 9 |
| 13 ,, | ... | ,, | 2 | 0 |
| 14 ,, | ... | ,, | 2 | 6 |
| 15 ,, | ... | ,, | 2 | 9 |
| 16 ,, | ... | ,, | 3 | 0 |
| 17 ,, | ... | ,, | 3 | 6 |
| 18 ,, | ... | ,, | 4 | 0 |
| 20 ,, | ... | ,, | 5 | 3 |
| 22 ,, | ... | ,, | 6 | 0 |
| 24 ,, | ... | ,, | 6 | 9 |
| 12 ,, Folding Palettes | | each | 3 | 0 |

### Satin Wood.

| Length. | | | s. | d. |
|---|---|---|---|---|
| 8 inches | ... | each | 2 | 3 |
| 9 ,, | ... | ,, | 2 | 6 |
| 10 ,, | ... | ,, | 3 | 0 |
| 11 ,, | ... | ,, | 3 | 3 |
| 12 ,, | ... | ,, | 3 | 6 |
| 13 ,, | ... | ,, | 4 | 3 |
| 14 ,, | ... | ,, | 5 | 0 |
| 15 ,, | ... | ,, | 5 | 6 |
| 16 ,, | ... | ,, | 6 | 0 |
| 17 ,, | ... | ,, | 6 | 6 |
| 18 ,, | ... | ,, | 6 | 9 |
| 12 ,, Folding Palettes | | each | 5 | 6 |

### Mahogany.

*To fit the following Oil-Colour Boxes.*

| | | s. | d. |
|---|---|---|---|
| Pupil's ... | each | 0 | 6 |
| Pocket ... | ,, | 0 | 9 |
| Tourist's ... | ,, | 1 | 0 |
| Compact ... | ,, | 1 | 3 |
| Student's ... | ,, | 1 | 6 |
| Companion ... | ,, | 1 | 9 |
| Portable ... | ,, | 2 | 0 |
| Academy ... | ,, | 1 | 9 |
| No. 1 Studio ... | ,, | 1 | 9 |
| No. 2 Studio ... | ,, | 2 | 6 |
| No. 3 Studio ... | ,, | 3 | 0 |
| Sketching Box (Folding Palette) | | 3 | 0 |

*No. 1 Shape is sent unless otherwise ordered.*

# Mahl Sticks.

| | Each. s. | d. |
|---|---|---|
| Bamboo or White Wood, 46 inches ... ... ... ... | 0 | 6 |
| Brass-jointed, White Wood, 36 inches in two pieces ... | | |
| ,, ,, 36 ,, three ,, ... | | |
| ,, ,, 44 ,, four ,, ... | 2 | 0 |
| ,, Polished Bamboo, 38 inches, in two pieces | 2 | 6 |
| ,, ,, 38 ,, three ,, | 3 | 0 |
| ,, ,, 44 ,, four ,, | 3 | 6 |
| ,, ,, 56 ,, five ,, | 4 | 0 |
| Telescopic Bamboo, extending to 36 inches ... ... | 4 | 0 |

# Palette Knives,

## WITH BEST STEEL BLADES.

| | | | | |
|---|---|---|---|---|
| No. 540 | Cocoa handle .. .. .. .. | 0 8 | 0 9 | 0 10 |
| ,, 541 | ,, balanced .. .. | 0 9 | 1 0 | 1 0 |
| ,, 542 | Ebony handle .. .. .. .. | 0 8 | 0 9 | 0 10 |
| ,, 543 | ,, balanced .. .. | 0 9 | 1 0 | 1 0 |
| ,, 547 | Ivory handle, balanced .. .. | 2 0 | 2 0 | 2 3 |
| ,, 554 | Cocoa handle, Trowel shape .. | 1 8 | 1 9 | 2 0 |

| **Painting Knives.** | No. 1. Each. | No. 2. Each. | No. 3. Each. | No. 4. Each. | No. 5. Each. |
|---|---|---|---|---|---|
| | *s. d.* | *s. d.* | *s. d.* | *s. d.* | *s. d.* |
| Very Thin Blades ... | 2 6 | 2 0 | 2 0 | 1 3 | 2 0 |

**Ivory Palette Knives.** – No. 1, 4½ inches, 1/- ; No. 2, 6 inches, 1/3 ; No. 3, 7 inches, 1/6; No. 4, 8 inches, 2/- each.

# Steel and Tin Ware.

| | |
|---|---|
| Dippers, Plain Tin .. .. .. .. .. .. | 2d. to 1/4 each. |
| ,, Japanned Tin .. .. .. .. .. | 4d. to 1/6 ,, |
| Brush Washers, Plain Tin .. .. .. .. .. | 1/3 & 2/- each. |
| do. Japanned .. .. .. .. .. | 1/9 & 2/3 ,, |
| Oil Bottles, Screw Tops, Japanned .. .. .. | .. 1/3 ,, |
| Scrapers .. .. .. .. .. .. .. | 5d. & 2/- ,, |
| Erasers .. .. .. .. .. .. .. | 1/- & 1/2 ,, |

# Drawing Boards.

## IN BEST SEASONED DEAL OR MAHOGANY.

| | Inches | | Clamped Deal. | Panelled Deal. | Framed Mahogany. |
|---|---|---|---|---|---|
| | | | s. d. | s. d. | s. d. |
| 4to Royal ... .. | 10½ by 8 | each | 1 0 | 1 6 | 5 0 |
| 4to Imperial ... ... | 13 ,, 9½ | ,, | 1 3 | 2 0 | 6 0 |
| 4to Imperial, full size | 16 ,, 11½ | ,, | 1 6 | 2 10 | — |
| Half Royal . . ... | 17 ,, 10½ | ,, | 1 8 | 2 10 | 8 0 |
| Demy ... ... ... | 18 ,, 13½ | ,, | 1 9 | 3 3 | — |
| Half Imperial ... ... | 19 ,, 13½ | ,, | 1 10 | 3 6 | 8 8 |
| Medium ... ... | 20 ,, 15½ | ,, | 2 6 | 4 0 | — |
| Half Imperial, full size | 23 ,, 16 | ,, | 2 8 | 4 9 | — |
| Royal ... ... ... | 22 ,, 17 | ,, | 2 8 | 4 9 | 12 8 |
| Half Dble. Elephant ... | 24 ,, 19 | ,, | 3 3 | 5 6 | — |
| Imperial ... ... | 28 ,, 19 | ,, | 4 0 | 6 3 | 16 6 |
| Imperial, full size ... | 31 ,, 23 | ,, | 5 3 | 8 4 | |
| Double Elephant ... | 38 ,, 24 | ,, | 8 6 | 12 6 | |
| Double Elephant, full size | 41 ,, 28 | ,, | 12 6 | | |

# The "Triple" Deal Drawing Boards.

## PROTECTED.

Three layers of well-seasoned wood the centre being placed transverse to the other two—are firmly glued together under great pressure. By this method the liability to warp and twist, which was too common a feature of boards made on the old principle, is reduced to a minimum. The satisfactory character of the "Triple" Drawing Boards is attested by the fact that they are fast superseding the ordinary Clamped Deal Boards.

**Sizes and prices the same as Clamped Deal Boards above.**

# Engineers' Drawing Boards.

These Boards are made of the best picked Dry Pine, one end inlaid Ebony, with mahogany battens at back, having Brass Slots which allow for the expansion and contraction of the wood. Engineers' Boards are warranted not to get out of the square or to split.

| | Inches | | | s. d. |
|---|---|---|---|---|
| Half Imperial ... ... ... | 23 by 16 | ... ... | each | 8 0 |
| Half Dble. Elephant ... ... | 28 by 21 | ... ... | ,, | 10 6 |
| Imperial ... ... ... | 32 by 23 | ... ... | ,, | 12 6 |
| Dble. Elephant ... ... ... | 41 by 28 | ... ... | ,, | 20 0 |
| Antiquarian ... ... ... | 54 by 32 | ... ... | ,, | 28 6 |

# Sketching Portfolios.

WITH JAPANNED TIN FRAMES TO FASTEN THE PAPER DOWN.

HALF-BOUND, WITH LEATHER OUTSIDE FLAP, AND LINEN INSIDE FLAPS TO HOLD LOOSE SKETCHES, OR RESERVE OF PAPER.

| | Inches Outside Frame. | | s. | d. |
|---|---|---|---|---|
| 8vo Imperial ... ... ... | 11½ by 8 | ... ... ... each | 4 | 6 |
| 4to Royal ... ... ... | 12⅝ ,, 9¾ | ... ... ,, | 5 | 3 |
| 6mo Imperial ... ... ... | 15½ ,, 7⅞ | ... ... ... ,, | 6 | 0 |
| 4to Imperial ... ... ... | 16 ,, 11½ | ... ... ... ,, | 6 | 6 |
| 4to Double Elephant ... | 20½ ,, 13¾ | ... ... ... ,, | 10 | 6 |
| 3mo Imperial ... ... ... | 22½ ,, 10¼ | ... ... ... ,, | 10 | 6 |
| Half Imperial ... ... | 22½ ,, 15½ | ... ... ... ,, | 12 | 9 |

# Sketching Stools and Seats.

| No. | | Each. s. | d. |
|---|---|---|---|
| 1. | Pocket Stool, loose seat, 18, 21, and 24 inches ... ... | 2 | 3 |
| 1A. | Ditto fixed seat, 21 inches ... ... ... | 3 | 0 |
| 2. | Ditto best make, fixed seat, 18, 21, and 24 inches ... | 6 | 9 |
| 3. | Square, loose seat, 21 inches ... ... ... ... ... | 3 | 9 |
| 4. | ,, ,, 24 ,, ... ... ... ... ... | 4 | 0 |
| 5. | Square, fixed seat, 17 ,, ... ... ... ... ... | 4 | 6 |
| 6. | ,, ,, 21 ,, ... ... ... ... ... | 5 | 3 |
| 7. | Gentlemen's Seat and Easel Combined ... ... ... | 18 | 9 |
| 8. | Ditto best quality, leather seat ... ... | 31 | 6 |
| 9. | The Lannigan Stool, size when closed 19½ in. by 10¼ by 2 ... | 3 | 0 |
| 10. | Loose Leather Seat, 24 inches, extra strong .. ... ... | 10 | 0 |
| 11. | The "Yeend King" Stool, adjustable, extra strong, canvas seat ... ... ... ... ... ... ... ... | 14 | 0 |
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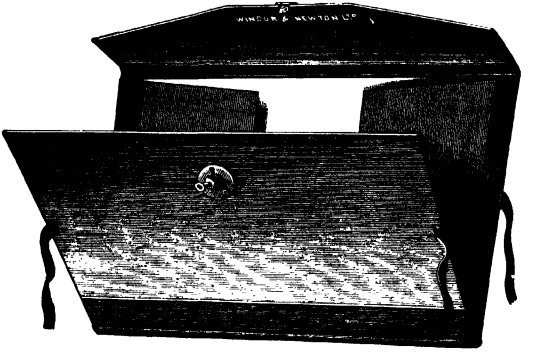


| | | | | | s. | d. |
|---|---|---|---|---|---|---|
| Half Demy ... ... | 15½ inches by | 10½ | ... ... | each | 5 | 6 |
| 4to Imperial ... ... | 15 ,, | 11 | ... ... | ,, | 6 | 0 |
| Music ... ... ... | 16 ,, | 11 | ... ... | ,, | 6 | 0 |
| Half Medium ... ... | 17 ,, | 11½ | ... ... | ,, | 7 | 0 |
| Half Royal ... ... | 19 ,, | 13 | ... ... | ,, | 8 | 6 |
| Demy ... ... ... | 21 ,, | 15½ | ... ... | ,, | 10 | 0 |
| Half Imperial ... ... | 22 ,, | 16 | ... ... | ,, | 10 | 6 |
| Medium ... ... ... | 22 ,, | 17 | ... ... | ,, | 10 | 6 |
| Royal ... ... ... | 25 ,, | 19 | ... ... | ,, | 13 | 6 |
| Super Royal ... ... | 27 ,, | 20 | ... ... | ,, | 15 | 0 |
| Imperial... ... .. | 31 ,, | 22 | ... ... | ,, | 21 | 0 |
| Atlas ... ... ... | 34 ,, | 26 | ... ... | ,, | 27 | 0 |
| Colombier ... ... | 36 ,, | 24 | ... ... | ,, | 30 | 0 |
| Double Elephant ... | 40 ,, | 28 | ... ... | ,, | 37 | 6 |

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|---|---|---|---|---|---|---|---|---|---|
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| | | *s.* | *d.* | *s.* | *d.* | *s.* | *d.* | *s.* | *d.* |
| Half Demy | each | 2 | 0 | 2 | 8 | 1 | 0 | 1 | 6 |
| 4to Imperial | ,, | 2 | 0 | 2 | 8 | 1 | 0 | 1 | 6 |
| Music | ,, | 2 | 0 | 2 | 9 | 1 | 0 | 1 | 6 |
| Half Medium | ,, | 2 | 6 | 3 | 3 | 1 | 3 | 1 | 8 |
| Half Royal | ,, | 3 | 0 | 4 | 0 | 1 | 6 | 2 | 0 |
| Demy | ,, | 3 | 6 | 5 | 0 | 1 | 8 | 2 | 6 |
| Half Imperial | ,, | 4 | 0 | 5 | 6 | 1 | 10 | 2 | 9 |
| Medium | ,, | 4 | 6 | 6 | 0 | 2 | 0 | 3 | 0 |
| Royal | ,, | 5 | 6 | 7 | 6 | 2 | 6 | 3 | 6 |
| Super Royal | ,, | 6 | 9 | 10 | 0 | 2 | 9 | 4 | 0 |
| Imperial | ,, | 9 | 6 | 12 | 0 | 3 | 6 | 5 | 0 |
| Atlas | ,, | 15 | 0 | 18 | 0 | 6 | 0 | 8 | 6 |
| Colombier | ,, | 15 | 0 | 18 | 0 | 6 | 0 | 8 | 6 |
| Double Elephant | ,, | 20 | 0 | 24 | 0 | 9 | 0 | 12 | 0 |

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|---|---|---|---|---|---|---|---|---|
| | | | | | *s.* | *d.* | *s.* | *d.* |
| 4to Imperial | 15 inches | by | 11 inches | each | 1 | 3 | 1 | 9 |
| Music | 16 ,, | | 11 ,, | ,, | 1 | 6 | 2 | 0 |
| Half Royal | 19 ,, | | 13 ,, | ,, | 2 | 0 | 2 | 6 |
| Half Imperial | 22 ,, | | 16 ,, | ,, | 2 | 3 | 3 | 0 |
| Royal | 25 ,, | | 19 ,, | ,, | 3 | 0 | 3 | 9 |
| Imperial | 31 ,, | | 22 ,, | ,, | 4 | 0 | 5 | 3 |

# Pencil Cases.

CLOTH OR LEATHER.

ROUND.

| | | Cloth. | Leather. | Best Leather |
|---|---|---|---|---|
| | | s. d. | s. d. | s. d. |
| No. 1. | 7 inches long by 1 inch diameter each | 0 3 | 0 7 | 0 9 |
| ,, 2. | 7 ,, 1¼ ,, ,, | 0 5 | 0 9 | 1 0 |
| 3. | 7 ,, 1⅝ ,, ,, | 0 6 | 1 0 | 1 3 |

FLAT.

| | Cloth | Leather |
|---|---|---|
| | s. d. | s. d. |
| To contain 3 Pencils .. .. .. .. each | 0 3 | 0 9 |
| ,, 4 ,, .. .. .. .. ,, | 0 4 | 0 10 |
| ,, 6 ,, .. .. .. .. ,, | 0 5 | 1 0 |

# Japanned Tin Brush Cases,

WITH OR WITHOUT HANDLES.

OVAL.

With removable metal division to protect the points of the Brushes.

| | | s. d. |
|---|---|---|
| No. 1. | 8¾ inches long ... ... each | 2 3 |
| ,, 2. | 10 ,, ... ... ,, | 2 6 |
| ,, 3. | 14 ,, ... ... ,, | 3 0 |
| ,, 10. | 8¾ inches long by 1½ inches diameter, Round, with division in centre | |

ROUND.

Without division.

| | | s. d. |
|---|---|---|
| No. 4 | 13 in. long by 1⅛ in. diameter | 1 6 |
| ,, 5. | 14 ,, 2 ,, each | 1 9 |
| ,, 6. | 14 ,, 2⅛ ,, ,, | 2 0 |
| ,, 8. | 14 ,, 2 ,, ,, | 1 0 |
| | ,, | 1 0 |

# Cloth Brush Cases (Round).

| | | |
|---|---|---|
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| 8 ,, 6 ... ... ... | 1 0 | 16 ,, 12 ... ... ... | 3 6 | 27 ,, 22 ... ... ... | 11 6 |
| 9 ,, 7 ... ... . | 1 2 | 18 ,, 14 ... . .. | 4 6 | 28 ,, 24 ... ... ... | 13 6 |
| 10 ,, 7 ... ... .. | 1 3 | 20 ,, 15 ... ... .. | 5 3 | 30 ,, 21 ... ... ... | 14 6 |
| 10 ,, 8 .. ... . | 1 6 | 22 ,, 17 ... ... ... | 6 9 | 30 ,, 25 ... ... ... | 15 0 |
| 12 ,, 9 ... ... ... | 2 0 | 24 ,, 18 .. ... ... | 8 0 | 32 ,, 27 ... ... ... | 18 0 |
| 14 ,, 10 ... .. ... | 2 3 | 25 ,, 19 ... ... ... | 9 0 | 36 ,, 28 ... ... ... | 24 0 |
| 14 ,, 12 ... ... ... | 2 8 | 25 ,, 21 ... ... ... | 10 0 | 36 ,, 30 ... ... ... | 27 0 |
| 15 ,, 10 ... ... ... | 2 8 | | | | |

# Prepared Ivories for Miniature Painting.

BLEACHED OR UNBLEACHED.

| Nos. | Inches. | Each. s. d. | Nos. | Inches. | Each. s. d. | Nos. | Inches. | Each. s. d. |
|---|---|---|---|---|---|---|---|---|
| 0 ... | 2 by 1⅝ ... | 0 10 | 5 ... | 3½ by 2⅝ ... | 3 0 | 9 ... | 4⅝ by 3⅝ ... | 6 6 |
| 1 ... | 2⅝ ,, 1⅝ ... | 1 1 | 6 ... | 3⅝ ,, 2⅝ ... | 4 0 | 10 ... | 5 ,, 4 ... | 9 6 |
| 2 ... | 2¾ ,, 2 ... | 1 4 | 7 ... | 3⅞ ,, 3 ... | 4 6 | 11 ... | 5½ ,, 4¼ ... | 12 6 |
| 3 ... | 2¾ ,, 2¼ ... | 2 0 | 8 ... | 4¼ ,, 3¼ ... | 5 0 | 12 ... | 6 ,, 4⅝ ... | 16 6 |
| 4 ... | 3 ,, 2⅝ ... | 2 9 | | | | | | |

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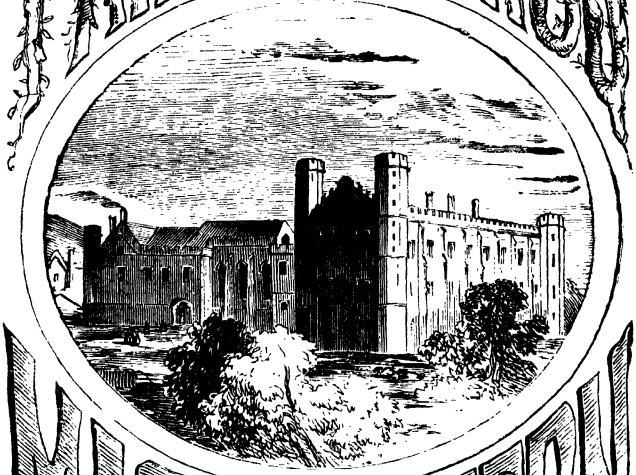
# A MANUAL OF PAINTING ON GLASS



# FOR THE MAGIC LANTERN

In Oil and Water Colours, with complete Instructions for its Use.

BY PERRAN GARNIER.

"So warm with life the blended colours glow."—*Addison*

LONDON
PRINTED BY PHIPPS AND CONNOR, LTD., TOTHILL STREET,
WESTMINSTER.

# CONTENTS.

# Preface.

This little treatise is designed to assist amateurs to paint slides for the magic-lantern; not merely the lantern as children know it, but lanterns of higher construction, and for which good paintings are often wanted. Photographs of various kinds partially supply this want, when coloured with sufficient care and skill; but if we consider how extensive and varied are the uses of this admirable invention we shall at once perceive how certain a demand there must be for the productions of the glass-painter.

Beauty, practical utility, and recreative enjoyment are united in this branch of ornamental art, which is constantly increasing in importance as invention continues to improve the magic-lantern, and its value becomes more widely known.

Amateurs and young artists attached to this fascinating art have often failed in it for want of precise practical directions, such as we have here carefully provided for them, both in general method and particular details, the utmost care having been taken to render these details clear and complete.

But it is to be observed, that although a beginner will find here all the guidance that he needs, yet the amount of proficiency required in an amateur glass painter to begin with, must depend upon the kind of work aimed at. To paint slides for the simplest lanterns—to colour outlines ready made on glass—or to trace over some easy subjects sold for the purpose—demands very little previous knowledge of elementary art. But when elaborate paintings are to be executed, something more is desirable. The glass painter should be ready to draw with at least average correctness, and be able to perceive and distinguish the finer gradations of colour and shade; then our instructions have only to be carefully studied, and correctly carried out, to produce at least an artistic and pleasing result, or it may be one of those "things of beauty" that are "a joy for ever." But patience and resolution are essential, not merely to begin, but also to complete any artistic production.

# A MANUAL OF PAINTING ON GLASS.

## PART I.

## Water Colour Painting on Glass.

OF the two methods of painting on glass—in Water and Varnish Colours—each has its own particular merits, and each is especially favoured by a numerous class of artists.

Oil painting on glass has been always very highly appreciated, but water colour painting on glass is of recent invention, and its rapid growth is not a little remarkable. The beautiful effects of which the latter is capable are just beginning to be appreciated, whilst the amateur is surprised to find how much easier this process is than the other.

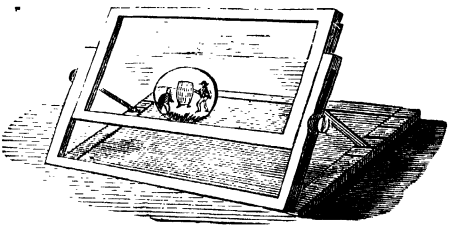
WATER COLOUR PAINTING takes less time and is not so liable to injury during the process as oil painting, chiefly because oil colours have frequently to be dried for some hours by a fire or stove; which give out deteriorating particles of dust, whilst water colours require no heat. Amateurs also appreciate another important advantage in water colours over oils, that, should it be necessary to retouch the painting frequently, water colours are not so liable as the latter to become heavy and coarse.

We begin this hand-book with the art of Water Colour Painting on Glass; and as the first thing is to provide materials and make a few simple preparations, we proceed to enumerate the articles required.

The water colours specially prepared by Messrs. J. Barnard & Son are as follows: Yellow, Green (Nos. 1 and 2), Brown, Orange, Crimson, Scarlet, Blue (Nos. 1 and 2), Black, and Neutral Tint.

Particularly good and fine-pointed brushes are required for painting slides, with no straggling or loose hairs, as the lines have to be fine, even, and made with a clear touch, for the magnifying process brings out strongly into view every imperfection of manipulation.

A convenient frame or easel is manufactured by Messrs. J. Barnard & Son, for supporting the glass; in the form shown in the accompanying illustration.



The drawing or print to be copied is to be placed under the glass, and fastened to it at the edges with a little gum-water, to prevent its shifting.

The GLASS that has to be worked upon should be quite free from specks, scratches, or other blemishes. The best plate-glass is supposed to impart a richer tone to the painting; crown, however, will do sufficiently well; but it is of great consequence to have it *perfectly clean.* This is best effected with warm water and a little soap, or with cold water in which a small quantity of ox-gall has been dissolved. Afterwards rub the glass thoroughly dry with a piece of soft wash-leather, which leaves no fluff behind—a slight matter apparently, but not so in reality. With the same purpose of keeping the glass clean, a piece of white paper must be constantly interposed between it and the hand, during the processes of sketching and colouring.

The list of materials includes a magnifying-glass, cup for water, chalk for outline, wash-leather, gum-water, etching-point, and dabbers for making the broad flat tints of the picture smooth and fine.

We now suppose the amateur is prepared to commence. Of course the first thing to be done is to draw on the glass the picture that is to be painted.

THE PICTURE—what picture?—that is a very important point for consideration; if it be a print of the exact size you want on the glass, such as the view on page 10, which will form a good beginning for morning, evening, sunset, or other effects, depending on the variations of colouring. That point determined, there is nothing to be done but to proceed to draw or trace in an outline—thus:

But suppose it is a large picture, and you have to reduce it to a few inches, so that every part shall be perfectly correct,—that is, mathematically true,—how are you to proceed? First, take a drawing-board, or any other flat board that is perfectly clean and smooth, and a sheet of the very best writing-paper. The paper is to be wetted all over on both sides with a clean damp sponge, and left until it is nearly dry. Some glue is to be dissolved in warm water; then, with a fine camel's-hair brush dipped in the dissolved glue, you draw a very

narrow line round the edge of the paper, which you must take up with the finger and thumb of both hands, and, with the glued side downwards, lay it on the face of the drawing-board, taking care that the bottom line of the paper is perfectly straight, and the side lines exactly upright; then with your finger gently press it round the edges, that it may adhere to the board by the glued lines; for there must be no creases.

When it is dry, take a **T** square, and draw the base line in at the bottom of the paper, and be sure it is exactly straight. The compasses must now be taken in hand; place one point of the instrument on the left corner of the paper, and strike a circle at the top. Do not make the corner mark more than a quarter of an inch long. Draw a similar circle from the right-hand corner of the paper, and intersect the line you have previously drawn; then divide the space between the two marks on the bottom line, and draw a line from the intersection on the top, to the middle mark on the bottom line, and that will be the exact perpendicular.

Now put it away while you square the picture. Should it be a valuable painting, by going properly to work there need not be any fear of damaging it in the least.

Get four pieces of wood, the thickness of a lath, and with some half-inch brads fasten them round the picture, which must be taken out of the frame. Find the centre of the picture in the same manner as directed on the paper; get a pair of dividers and set about one half-

inch wide, and begin from the centre perpendicular line, left and right, on the bottom piece of wood or lath, as near the front of the picture as you can without any risk of damage; press the compasses into the wood so as to leave a small hole; find the centre of the sides, and work from that point upwards and downwards; then go to the top part and do the same, and carry it all round; now take a penknife and make a notch in the wood exactly in the spot or hole where you placed the dividers—do not make it deep. Take silk or very fine cotton, and tie one end in a knot about the size of a pin's head, so that it shall not slip through the notch, begin at one end of the frame, and continue it from one end of the picture to the other, and carry it across so that it is covered with small squares, and number each square on the edge of the frame on which you have nailed the wood; now count the number of squares on the bottom of the picture, and take the board and measure off the size you intend the picture to be, and put the same number of divisions on the space you have marked off on the paper as there are on the larger picture. This is done with the dividers, so that there is no error; do not alter the dividers, commence from the bottom, and carry the divisions up the sides to the top.

Then commence from the centre of the top and go right and left along the top, do the same at the bottom and up the other side, and then it will be complete. Get a piece of ivory or bone, the thickness of a crow-quill,

and file it round to a point, but not sharp enough to cut, and with a pair of parallel rules and the ivory-point rule off from the bottom each parallel division till you come to the top—you must rule firm, but not cut through the paper, as the lines are to serve as a guide when you are making the reduction—or, if you like, you can take a steel-pen and some ink, and rule the divisions upright and across, and then they will not get obliterated—their use is to get the drawing mathematically correct; number them at bottom, top, up the sides, on the left and on the right, 1, 2, 3, 4; the use of figures is to prevent confusion, as you can find by the figures the exact spot where you are drawing, and if the picture contained a large number of figures, it could not be done without; should it be a portrait, the squares round the head must be sub-divided, to insure a correct likeness, a matter of great importance; you must sub-divide the original also.

When you begin the drawing, work from the centre. Keep a piece of clean paper under the hand, or you will smear the drawing; when you commence, make a mark in the square, observe all that you see in the large square, and copy it in the smaller one—the square is to show you exactly where the lines fall, so that you shall not get them too long or too short, so that the copy shall be exactly correct, although so much smaller. The paper you make the reduction on must be some inches larger round the edges than the subject drawn.

Let the india-rubber you correct the drawing with be wedge-shaped, as it is more convenient. Lay a

piece of paper over the part you do not wish to alter, and the error can be easily corrected without injuring the other part of the drawing; should you only want to correct a small part of the drawing, take a piece of paper and cut out a part in the shape ⬭, and then you can take out any part you want without injury to the rest.

It is better to lay the glass on the reduction you have just done when it is on the board; for if the original is not coloured, or it should be a print or a photograph, you can colour in the subject much better on the board.

The reduced picture—or a print that has to be copied—is now ready for tracing on the glass, and how is this to be done? In either of two ways. Rub up some neutral tint on the palette, and outline the subject with a very fine sable pencil, gradually deepening the lines as you near the foreground; or, use the chalk instead of the pencil and neutral tint. It is quite immaterial which you adopt; but it is very material whether you make coarse or fine lines, the drawing should be light and delicate. A good authority on this art thinks it better not to make an outline at all, but merely place the subject to be copied under the glass *and fill it in at once with colour*. This is the method an artist would prefer, because there are no thick or hard outlines in nature, every subject being encompassed with atmosphere. Distant hills, and, indeed, all objects far removed from the spectator, assume a softness which would be marred by being made too apparent with hard lines. Whether the amateur elects

to use the sable and neutral tint, or the chalk, or to do without either, is, as we have said, immaterial.

But the simplest method is to outline the subject with chalk; and in using this, extreme care must be taken. If any of the lines are too thick, they must be reduced with the penknife—in this way: Remove your drawing from the frame, and from the picture you have copied, and place it on a piece of white paper on a table or desk, and scrape the outline carefully where it may be necessary. Clear away blots or imperfections, and mend all broken or jagged lines. Examine the drawing all over very carefully, keeping, as before directed, white paper always between the hand and the glass; when the sketch is as perfect as you can make it, dust it with a soft brush, and let the surface be quite clean before you begin to colour.

The principal work is now to be done—the painting. Face the light, and set the outline picture in a slanting position before you, so that the light may pass through it. A piece of white paper is then to be laid flat on the table —behind the glass—which will enable you to see every delicate tint.

The colours are to be neatly set out on the palette or slab. Supply the cup with water. The brushes are on your right hand. Blow away all dust from the slab, and, as before suggested, remove from the glass any particles of dust or other matters that the eye might not be able to detect. Cleanliness is of the utmost importance in every step of glass-painting for the Magic Lantern, the smallest

speck or blemish being so greatly magnified that it might spoil the effect of a very fine picture.

## LANDSCAPE PAINTING IN WATER COLOURS.

The proper way to begin the painting is to colour the sky first, and work downward to the foreground. The sky tints must be kept as smooth as possible, and on nearing the horizon, lighten the tint with water.

If the first attempt is streaky, smooth the tint by using a flat camel's-hair pencil, having first breathed upon the tint. Next, the clouds are to be laid in the form in which they appear in the original picture. The manipulation of these is greatly assisted by the use of the dabber. Breathe upon the tint, and with the dabber, brush, dab, or smooth it down, which will give the work the appearance of having been stippled. The same dabber must not be used for different tints—that would spoil them. A clean dabber is required for every separate colour; the purpose is to smooth the tints after they are made humid by breathing over them. Every colour is to be treated in the same manner; but if the dabber be used too often, or unskilfully, it will make all the picture appear of one texture, which is by all means to be avoided.

When the sky and clouds are done, put in the distance and middle distance; and lastly, come to the foreground, where the brightest tints are to appear. This completes the first painting, which is to be varnished over to fasten

it, after reducing with the penknife or dabber any very high lights on the clouds or distant hills.

The second painting is in part a repetition of the first. The clouds are made out in detail, the distant hills to be shadowed and brought into form, the trees and all objects to be more fully made out. If any light fleecy clouds appear on the sky, they are to be scratched out with the penknife; but before that be done, the blue towards the zenith should first have been strengthened.

The lights on the hills are to be removed by the knife and warm tints substituted. Where water appears in the landscape, the lights are to be removed with the knife. Half lights are also to be removed from the trees, foreground, &c., and should these scrapings be too apparent, soften them with the dabber. In the foreground there is great scope for the use of the knife, particularly should there be rocks, stones, or stumps of trees.

The second painting is varnished over like the first; and when dry, the third and last painting requires all the skill that the worker has to put forth.

The shadows are to be strengthened—the subject made out more in detail, and compared with the original very attentively. The leaves of trees are difficult. The deepest shadows, through which light is not supposed to be transferred, must be touched in with black, which being an opaque colour, must be used with caution. When the landscape is thus finished to appear as like the original as your skill can make it, varnish over for the third time.

And now in regard to the kinds of landscape most pleasing for Water Colours on Glass for use in the Magic Lantern.

Sunsets are the most beautiful of all subjects for dissolving views or the slides; they require the utmost care. Work from the zenith to the horizon, as before described. There are no white clouds in a sunset. Wash the blue tint carefully away before coming to the horizon. After the picture on the glass has become dry, turn it over on a piece of clean white paper, and paint the warm colours of the sunset on the back of the glass, so as to preserve the blue pure and bright.

You have now to determine what hour of sunset you will represent. In early evening the sun is seen in all the rich glow of yellow. As evening advances it becomes crimson, deepening until purple is the prevailing colour; this changing to a black. The yellow tint is sometimes to be the first—sometimes the last—to be worked in. Where there are deep purple clouds, they should be put in first, and the warm glow melt into the blue. Each one of the warm colours must dry and be varnished over before proceeding with the next, and the blue on the right side of the picture must be varnished also.

If the sunset scene has a distance—a hill or hills, a grove of trees, buildings, &c., remember that the warm colours painted on the back of the glass must not be carried over any of these objects, or it would spoil the picture.

Moonlight subjects are charming subjects for glass

painting, when executed with skill. The outline is of little importance; it is in the finish of these scenes that the attention and elaboration are required. Take some blue No. 1, and begin at the zenith, and, if a sea view, carry it all over the picture; if there are rocks in the foreground it will not much matter. Prominent lights in the water should be taken out with a penknife, the weaker ones with the point, the stronger ones with the edge of the blade. Take out the moon and lights before you varnish. It is the varnish that gives the picture that soft, pleasing, melancholy tone so much admired. It adds a pale tinge to the moon, and prevents its looking like a hole. The shadows in all moonlight pictures should be warm. Use a neutral tint, scarcely any brown in the distance or in the foreground.

Objects such as horses, dogs, carts, rocks, boats, broken walls, or any part of a building, may be shadowed with pure madder; this colour is powerful, deep, and perfectly transparent, gives vigour to the foreground, and air to the distance.

A touch of red in the foreground produces a good effect. This may be arranged by a red shawl lying on the ground, or a red pitcher, or any natural object tinged with red. But the introduction requires great judgment.

## FIGURE PAINTING IN WATER COLOURS.

Take a fine brush, and with crimson lake and a little brown (just enough to soften the colour), paint in just the

extreme depth of the dark parts of drapery, the hair, shoes, and deep shadows in the foreground, and make stones or pieces of rock sharp and decided. If your picture be an open-air scene, mark the stile and deep shadows on stumps of trees with the brown and crimson lake; with this colour you may bring out a considerable portion of the picture, but be very correct, and never touch a colour twice before varnishing, as you would disturb the under colour, and make colouring heavy.

Should there be a dog, horse, or any other prominent object on the foreground, paint it in as soon as possible, to give force to your picture. Now weaken the colour with a little water, and add a little neutral tint, and commence the broad shadows in the second distance; but do them very tenderly at first. It is easy to strengthen, but difficult to reduce. Keep close to the original. If your subject is an interior, say of a cottage, add a little more neutral tint and some pure blue, and put in the lighter shadows in the distance, such as the walls, plates, dishes, cupbords, &c.

Broad shadows in white drapery may now be done with advantage, and tender greys generally. Do only a little at a time, varnish and dry.

The flesh tints come next. Take one of the finest brushes, and be sure it is evenly pointed. The glass must not be sloped, or the water colours, being very thin, will be sure to run before they can dry. Take on the brush some crimson lake mixed with a little brown; proceed with the face first. Mark out the nostrils, the

eyebrows, the shadows under the nose, the eyelids, the ear, the pupil of the eye, and the darker parts of the hair, keeping it flowing and free. Should there be any broad shadows on the face—as, for instance, from the brim of a hat or cap peak—it may be done now.

Next, thin your colour with water, and proceed with the half-tints, keeping them clear and transparent. Then, with a clean brush and some pure blue, put in some of the pearly tints under the eyes, round the mouth, and some of the graduating tints on the cheek and neck, the hollow at the base of the throat, and some of the delicate hues on the bosom.

Now commence with the hands and arms of a lady or child. Take care not to make the fingers lean or wire-drawn, but full and round. Observe the dimples in the knuckles, and that fleshy fulness which is always so pleasing. The hands of a man or boy should be more bold and marked, and more powerful in colour. In the bend of the arm of a lady or child the blue artery shows very pure and bright. Take some crimson, very much thinned with water, and tenderly tint in the elbows and the tips of the fingers, and the joint at the wrist, and break the colour a little way up the arm.

Take some of the black and a portion of the blue, and put in the dark part of the eyes. The extreme lights must be taken out with the etching-point or knife. As you have put in the broad shadows, varnish again.

Next commence the broad colours of the drapery. Work from the centre. Put in the brightest colours first,

retiring ones last. Do not let them be heavy, as the lights require working into form.

After you have varnished, the high lights must be scraped out, and the deep shadows toned up. To examine your work, hold the glass up to the light edge-ways. Now carry the broad flat colour of the drapery into the shadows, and varnish the drapery. Always lay on the colours of the drapery before the broad flesh-tints, as the flesh must be regulated by the colours of the drapery. Now look over the face and hands well, and see there are no specks or parts of the shadows or pearly tints left unvarnished.

The flesh-tint is composed of scarlet and a portion of yellow. Try it on a piece of white paper, or glass laid on white paper.

In this first painting the colours must be flat and even, and look pleasing, or they cannot be rendered so afterwards. Before varnishing you can smooth them by breathing on them, and then with a soft camel-hair brush, quite dry, go tenderly over them with a circular motion of the wrist.

The second painting of the face begins with the lips and pupils of the eyes, if not done in the first painting. And now tint in the cheeks with crimson, stipple them very delicately, and melt them into the flesh-tint.

Put in the colour on the edge and lobe of the ear; it is powerful and bright. Now take out bright lights in the eyes with the knife; those on the nose and lips with the etching-point. A light on the cheek and under the eyes

should be done after the manner of a line-engraving, or they will look like holes in the face. They should be in small curved lines. Now varnish the face only, and dry thoroughly; then, if the figure be a lady or child, take some crimson and just a tinge of yellow, and run a slight wash over the lower part of the face. Do not touch the forehead if it is the face of a man, and use the scarlet lake, making the colour rather powerful. For the face of a boy, use the same colour, only rather paler, and varnish again.

The second painting of the hands and arms with flesh-colour is to be done after carefully seeing that you have varnished over all the blues and greys, the pink on the elbows and tips of the fingers. And when the varnishing of the second painting is dry, carefully strengthen the colour of the hands of man or boy with scarlet lake and some yellow. When dry, varnish again, and afterwards touch up the finger-nails with pale pure blue, scrape lights in them with the etching-point, scrape half-lights here and there with the point in the arms and hands. Now varnish. If the picture contains rustic figures and the varnish is quite dry, add some yellow, not much, and go over the lower part of the face and hands, as the face and hands of persons exposed to the sun and wind are deeper in colour than those of in-door dwellers. Always use the medium for shadows, it makes them more transparent and much richer.

The drapery also has to receive a second and third painting. These may be readily understood from the

previous instructions. Strengthen the deepest shadows with the purple; scrape out the high-lights with the etching-point, in touches or lines as in line-engravings. Put in the pale half-shadows with weak purple; keep the shadows clear and distinct, but never hard. Hold the painting frequently up to the light, to see that you do not get it heavy. It is particularly difficult to keep black drapery from getting heavy and coarse. The shadows should be warm and transparent, and the half tints delicate. Varnish again. The picture is now on the frame, as there is no longer any danger of the colours running. The first work of the second painting of the whole picture is on the flesh, which requires the use of the magnifying glass, to enable you to produce those delicate tints so necessary in the production of a good picture. The way to accomplish this is to stipple in the colours very delicately. Put in the eyebrows and the corners of the mouth. Put in the broad colour of the hair; round up the throat; make the cheeks very soft and delicate, or, if it is the figure of a man, keep the tone of the colour high.

In all rustic figures the colour of the flesh must be high, as previously said. Hands, arms, and face cannot be finished entirely by stippling. It is done with the point of the brush, in little dots or touches. Do not let the brush hold too much colour. Varnish when finished.

In the third and last painting you must go over all you have done, with beautiful luminous tints; here and there clear out the darker shadows; soften harsh lines;

even broken shadows; mend incorrect drawing, and improve the whole wherever you see it is necessary. Blend the cool grey tints into the warm ones.

Go over the hands and arms, fingers and finger-nails. Look to all accessories, as chairs, tables, pitchers, or other objects. See that the drawing of animals is correct, such as dogs and cats, as they show very conspicuously on the lantern screen. Strengthen shadows, so as to bring the principal figures forward and make the picture look beautifully pleasing and bright.

In giving the last painting to the drapery, endeavour to impart to it *character*. Observe the various folds—some are sharp and angular; others very soft, as in velvet, muslin, and wool. In satin the lights are brilliant and crisp. Ermines and sables need much care in finishing.

Finally, remember from beginning to end of a picture on glass in water colours, never to lay one colour over another without interposing a layer of thin varnish, and whether you use a magnifying glass or not in the first and second painting, be sure to do so in the third. And now, before quitting this part of our task, let us say a few words on the painting of special PORTRAITS of well-known public personages, such as the Royal Family, ministers of state, and persons eminent in science and art; such portraits being frequently required for the magic lantern.

Photographs are so indefinite, that you will find it best to make a drawing to suit your purpose on a paper

before tracing on the glass. Mind notable and characteristic points of costume by which people are accustomed to recognise public characters. Proceed with outline and painting as already described.

To preserve your finished picture, cover it with a second piece of glass of the same size, and separate them at the edges by small bits of card cut in this shape  , and fix them with gum; then take a narrow strip of black paper, the eighth of an inch wide, and gum it over the edges. When dry, the picture can be freely handled, without injury, and should be mounted in a wooden frame.

## PART II.

# Painting on Glass in Varnish Colours.

THE colours in collapsible tubes for oil-painting on glass manufactured by Messrs. J. Barnard and Son are: Yellow No. 1 and 2, Intense Blue, Green, Raw Sienna, Burnt Sienna, Black, Intense Brown, Crimson, Light Blue, New Blue, Intense Purple, Orangeine, Roseine (a beautiful pink), Scarlet, Medium, and Spirits. There is also required Pale Drying Oil, Gold Size, Mastic Varnish, Spirits of Turpentine, Copal Varnish, and the same easel as that used for water colours, a plentiful assortment of brushes and dabbers,

an ivory and a steel palette-knife, a small slab or earthenware palette, a penknife, an etching-point, lithographic pen for outlines, and pieces of soft linen or cotton rag.

A small quantity of each colour is first to be placed on the palette, and when in use is to be thinned as much as necessary with the medium. The three primary colours, by judicious mixture, are to be made to yield all the tints that can possibly be required.

The green may be made of almost any shade, by the admixture of yellow No. 1, or, for autumnal tints, with burnt sienna. Or other greens may be made with the deep blue and yellow No. 2. A beautiful scarlet is obtained by mixing the crimson and yellow No. 2. Purples are made with crimson and blue. Delicate greys for distances and for flesh, with light blue and a very little crimson. Flesh colours are made with crimson and a little raw sienna. Should it be necessary to thin the colours much, a little spirit may be used with the medium. The spirit or a little turpentine is also used to clean the brushes.

The brushes must be cleaned every time they are used, and carefully dried before putting away. If the brushes are bent in the drying they are spoiled. Have the best brushes that you can procure, and obtain a good selection, as you must have a brush for each separate colour. Be careful to keep the materials free from dust, and on each occasion take only about as much colour as you require from the tube, as it becomes skinny and unfit for use after being left for more than a day. Should any

of the tints appear opaque, pass carefully over them a thin coating of the medium.

We now suppose that the student wishes to be guided through the whole process of painting with varnish colours on glass. At the same time we must mention that there are different methods recommended by different artists: we shall give none that are not clear, and easy to be understood.

The same frame or easel used for water-colour painting will do for varnish colours.

The Outlining on the glass may be a very simple matter, or not, according to the subject of the preparation.

An amateur may escape this difficulty altogether by purchasing outlines on the glass, ready for colouring, which are sold at very low prices. If, however, the student draws the outline of a subject, it may be done with a fine brush, or with a fine pen and Indian ink, rubbed up on a small saucer with a little ox-gall. The tracing when completed should look like a fine outline etching. The outlines of faces and hands may be traced in little delicate spots or touches.

The stumps of trees and foreground objects, in the shadows should be rather bold. Rocks should be very sharp and distinct; the walls and archways in deep shadows are made very sharp, to prevent the picture looking weak or feeble. If you are engaged on a landscape, look well to the accessories, as they form leading points. Let them be ever so bold, if once they are drawn

well, they will never look offensive or out of place. When removing the glass from the drawing, just slip a piece of clean white paper between the glass and the original that you are tracing from. You can then see what requires altering or amending, as it is very difficult to place it on the same spot again when once removed. Now lay your finished tracing on a piece of white paper, and with a sharp penknife correct all blemishes. Thin the coarse and heavy lines, clear ragged or imperfect ones, and make the sketch look pleasing before you begin with the colour.

With a very fine steel-pen and Indian ink, outline the clouds on the tracing rather strongly. When the tracing is complete the colouring is commenced with the blue sky and all the other parts of the picture of a blue tint.

Take a little blue from a tube, and either thin it a little with medium, or not. You may find the blue sufficiently moist for the purpose, without any addition of varnish or oil, and the pure colour is far superior to the diluted.

There are several methods of laying on these flat or broad tints. One method is to dip the under part of the end of the middle finger in the colour, and dab it on the picture. Another mode is to put in the sky with a soft leather dabber, stuffed with white wool—or it may be done with the brush. And, when all the blue of the original is tinted in, then with the same leather dabber make it even and fine, and pass a dry soft camel's-hair brush over it. Do not forget, as before mentioned, that

the blue of the sky must be deepest at the zenith, and melt away toward the horizon.

When the blue—or any other colour—is too deep, take off a shade or two with the under side of the hand, gently pressed on the glass. The skin must not be bare, or you would take all the colour off the surface, and leave a hole there. The part of the hand to be applied must be thinly covered with the colour, and then it will be found very effectual for the purpose. Should too much colour come off on the hand, strike it sharply on a clean place on the easel.

When the broad tint of blue is carefully finished on the glass, take a soft rag, and wipe out the high-lights on the clouds, &c. Or they may be taken out with the leather stump, or a piece of paper rolled into the shape of a stump. As a rule, it is better to take out these lights while the colour is wet, as you can soften them off gradually, and break little high-lights into them easily and naturally.

Now cover the top of the little finger with a delicate tone of blue, and gently soften the clouds here and there, blending them into the horizon. The hills, mountains, and sea, in the extreme distance, should be blue, and the shadows neutral and a little blue. Use the magnifying glass to work with the neutral tint. This is made with intense blue and roseine.

Neutral tint for hills and mountains should be nearly all blue, with more roseine as the foreground is approached. Should your landscape have objects in the foreground of

a bold character, make the shadows at once sharp and decided, composed of burnt sienna and roseine; they must be kept very transparent. Any harshness in the treatment will soon disappear as the other colours pass over them—but this cannot be before the first drying; therefore this important part of the process must here be carefully attended to.

If you use an oven, dust it out well, and be sure it is not too hot, as that would crack the glass, and spoil the picture. Get a thin piece of board, see that it will go inside the oven, drive a couple of tacks into it, near the edge. The board is to rest the glass on, the tacks are to prevent it from slipping down. Place a thin piece of board on the side of the oven nearest the fire. This prevents the too sudden heat from cracking the glass. Place the glass inside the oven on the board with tacks, and rest it against the board at the side of the oven in a sloping position, so that it touches nothing beyond the edges. The more gentle the heat, the brighter the colours, and the less liable to crack when brought out into the cold air. To prevent this "cracking," when you take the glass out of the oven hold it in the hand some little time.

If you have no oven for drying, fire bricks heated is the next best contrivance. Hobs form but a very bad makeshift, as they get covered with dust, and spoil the beauty of the picture.

Get three or four fire bricks; make a charcoal fire, put the bricks on or over it, on an iron plate; put a

piece of board on the hobs, and when the bricks are sufficiently hot, place them on it, about the width of a brick apart; now place the picture between them in a slanting position, and place a third brick over it, resting on the side bricks. Do not close the ends, as that would generate steam and damage the picture. It will take some hours to dry. You may take off the top brick, when you think it dry, and let it cool gradually.

For the second painting, remove the picture from the hobs or oven, and lay it on a piece of clean white paper on the desk, not on the frame. Clean the palette or slab, and set it out with fresh colours. Now determine the time of day in the landscape. If morning, use pale greys, mingled with a light red, and sometimes pale yellow. But all morning colours must be cold. Even red can convey an idea of cold when done with judgment.

At mid-day the blue of the sky is very vivid, and the clouds massive in form. But it is in evening scenes that the grandest effects of colour are shown by the magic lantern. The large clouds deep purple, sometimes almost black, opposed to the gorgeous colours of the setting sun —pale yellow—deep orange—bright crimson, &c. And then the long grand shadows, settling down into solemn gloomy NIGHT. Study these effects on paper; whatever is wrong can be altered there; not so with the glass—what is wrong there must remain.

The clouds are formed first, round and graceful, and then softened with the dabbers. Here, again, methods differ—some assert that the best of all dabbers is the

finger-tip covered with colour, as with it tints may be readily added or removed.

The broad tints of the middle distance are now to be laid in very delicately and clearly, carefully preserving the drawing. Smooth these flat tints first with the finger, and then with a soft brush.

The foreground is now to be worked—the most difficult part of the picture and most important. Take out the high-lights with the stump. Paint broad patches of grass, or fields, with a middle-size sable brush, and while the green colour is wet, take a small fitch or hog brush, and with a pair of scissors take off the extreme point, then with it push the colour from you up towards the sky. This causes irregular lights, and makes the green look like a rough field of grass.

Now figures and objects are to be painted with firmness and brilliancy, and then dry the glass for the third finishing manipulation.

Examine the work critically. Carefully scrape off any grit or dust that may have adhered in the drying, and if some of the colours appear dull and opaque, give them a very thin coat of mastic varnish, laid evenly over the picture with a flat hog-hair brush. The varnish dries in a few minutes, and then you can finish the picture. You will need a powerful magnifying glass at this stage. Some artists strongly recommend finishing in water colour, as it admits of strong deep colour without being coarse; there is no waiting for drying; no dust; no absorbing of any of the underneath colours; a slight

touch of varnish wherever you see the colours inclined to crack or chip, is all that is necessary.

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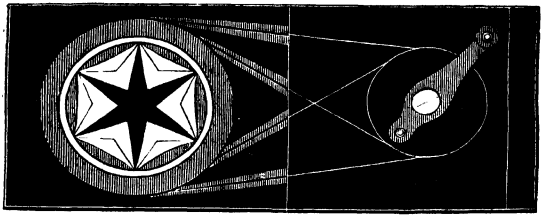
## PART III.

# Phantasmagoria Slides.

THESE Slides are painted so as to admit the light only through the figures and objects, the rest of the space being filled up with black paint. Thus, in astronomical diagrams, the background on the diagrams is formed of opaque black, so that no ray of light can pass except through the heavenly bodies, which are seen revolving in their orbits, thus producing striking effects. Constellations of stars may be represented on a dark-blue night sky. Take care to have the outlines fine and distinct, no uneven or ragged edges being permitted to remain either on the lines taken out with the point, on the black background, or round the different bodies depicted thereon. As much care and precision are required as when painting a figure or any delicate object in a view.

## THE CHROMATROPE.



This name is of Greek origin, and means *many colours.*

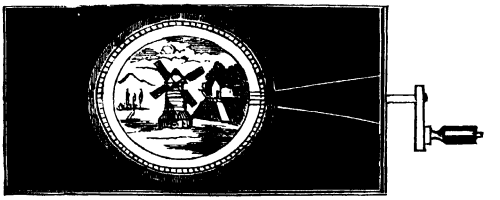
The Chromatrope is altogether a very pleasing and ingenious invention.

It consists of two circular discs of glass, painted in reverse directions with geometrical figures in brilliant colours. When one of these discs is moved, by means of rackwork, over the other, a great variety of figures is shown, which very much resembles the Kaleidoscope, only with the addition of a rapid action, and constant change, in every case showing the dispersion of various coloured rays from a centre, and the concentration of the coloured rays from the circumference to the centre. Chromatropes are fitted up in two styles, namely, with a rack and with a band as represented above; the last is much the better, as it admits of two movements—slow and quick—which very often produces a variety of figures. Both of the glasses may be painted with the same pattern and colours, and an infinite number or similar patterns or figures can be designed, every way suitable for Chromatropes. All the variety of colours

can be introduced. Each colour must be kept clear and brilliant, and as positive as you possibly can. Every part of the glass not occupied by the pattern should be painted over with opaque black. If you wish them to look particularly brilliant, the more pure the colours are kept, the better you will succeed; and the more exact each pair of patterns are kept to each other, the more pleasing and better will be the effect produced. They are not so difficult to execute as paintings of interiors, or landscapes, figures, and animals, &c., this being a more mechanical process.

## DOUBLE SLIDES.

Numerous are the pleasing effects you can produce with the double glasses—ships sailing in calm and in storms, moving figures, windmills and water-mills at work, &c. These effects are obtained by the sea-view or landscape being painted on one glass, and the objects which are intended to be made to move in them on another. We will suppose a windmill at work; the

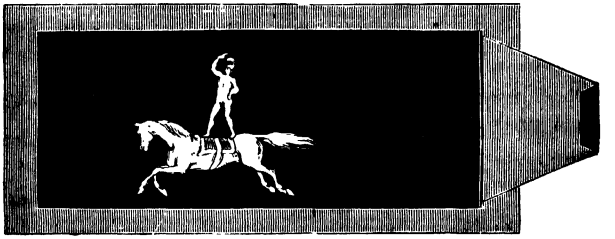


mill with the view is painted on a circular piece of glass and is fixed in the wood frame; the wings which you

intend to revolve you must paint on another glass, placed in a flat ring of brass, in which there are cut small teeth in the upper circumference of the ring; you then place this on the first glass, in a circle cut out in the wood frame to receive them. A handle, with pinion attached to the end of it, is also fixed in a groove to the wooden framework; the pinion is then placed on the teeth of the brass ring. By turning the handle, the wings will revolve. It is scarcely necessary to add that great care is required in placing the wings exactly in the place they ought to occupy on the mill, as if they were painted on one glass —you arrange the moving wheel of the water-mill in the same manner. You will have to attend to another thing in particular—that is, the exact centre of the glasses will have to be found, and the axis of the wheels marked on it, so that the wheels revolve on that point, or else the wings or the wheel will appear to have two movements—rotating, and also revolving around the mill, and that will produce a most ridiculous effect. The motion of a ship in the water is produced by painting the view on a glass fixed in a wooden frame; the ship, with moving water, on the second glass, inserted in a flat, circular, brass framework or ring, with a handle attached to it very much resembling an eye-glass, and placed on the fixed view, as described in the painting of the windmill; then, if you move the handle to and fro gently, it will represent the ship's motion on the waves.

Figures, or anything else which you intend to represent moving or passing through the picture, are painted

in the same manner, on a separate piece of glass. with this exception, that it must not be circular, but a long strip or slip of glass, which is made to slide over the fixed painting in a groove cut in the wooden frame.



Thus in the cut the figures of the man are painted on the piece of slipping glass, a space of clear glass large enough to exhibit it being left on the framed glass. The slipping glass, being pushed in, causes the black on the framed glass to cover and obscure the first picture, while the second is shown in the clear space.

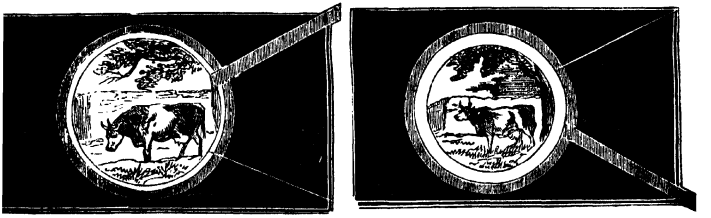
The mechanical frame-work for all these effects can be obtained ready made. Many other effects can be produced; such as changing summer into winter, with the falling of snow; night and day, gas-lamps lighted, lights in windows, thunder-storms, ship struck with lightning, &c.

The best way to represent flashes of lightning is to paint glass entirely black, corresponding in size to the view in which you intend to show the storm; then mark out the lightning on the spot from which you intend the flash to come, with Chinese white on the black ground, paint the flashes, and carefully remove the paint

with a point, so as to allow the rays of light freely to pass through the parts scraped or cut out; a piece of thin zinc, attached to a spring wire, must cover the parts representing the flash; fasten a piece of cat-gut to this shade or cover; on pulling the gut, it will draw the shade on one side, and the lightning appears; then let it go suddenly, and the gut and the covering instantaneously spring back, and conceal it as before.

Rainbows may also be shown. The bow should be painted on a black background; you can also show the Aurora Borealis, or Northern Lights; they are painted and represented in the same manner. These effects are very amusing and instructive, when properly managed. By gradually allowing the rays of light from the lantern, in which the effect is placed, to fall on the screen—whilst the view in the other lantern is being represented—the rainbow will disappear as in nature.

## MOVABLE LEVER SLIDES.



An endless variety of amusing subjects can be made for the lever arrangement, such as the horse drinking,

teaching a dog to smoke, &c. We will suppose the subject you wish to have is a cow standing in the water, drinking. You proceed to paint your landscape, putting the cow prominently in the foreground, without its head, as before directed, on one glass, which, when finished, is fixed permanently in the frame. On the second glass, which is inserted in a brass circle or frame, attached to which is the lever, you paint the head and neck of the cow. When finished and fixed in the frame, this, by the moving of the lever, will produce the effect as shown on page 39.

## PART IV.

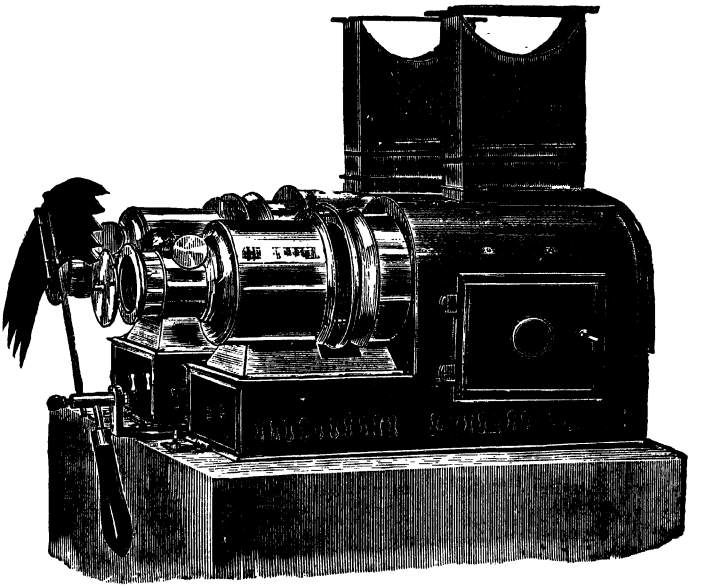
But it is now necessary to understand something of

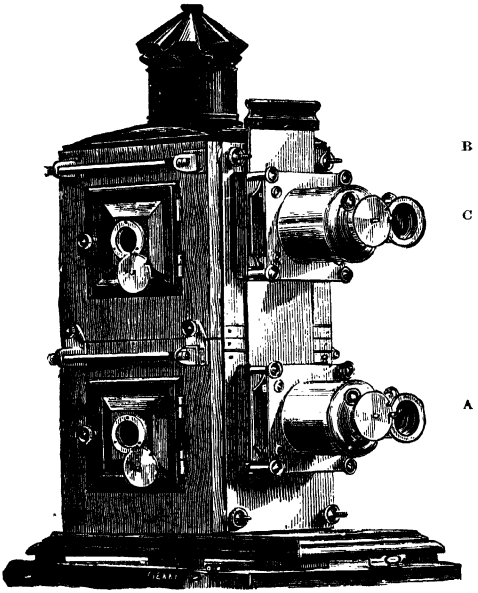
# The Construction of Lanterns and how to Use them,

Which we will at once proceed to explain and illustrate.

### PAIR OF RUSSIAN IRON LANTERNS, FOR DISSOLVING VIEWS,

To Burn Paraffin or any Mineral Oil.





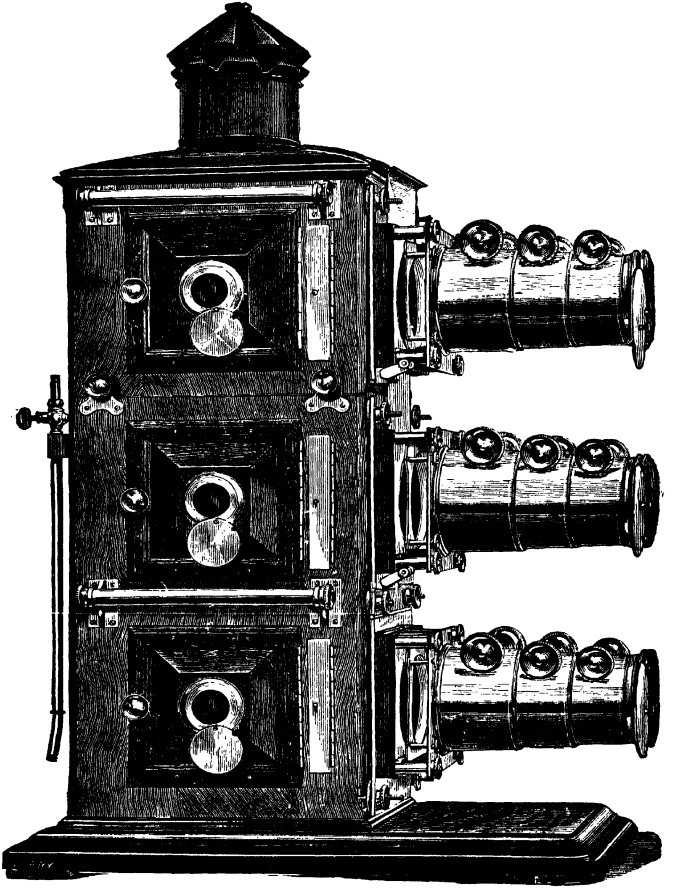

There are several classes of lanterns, each comprising different degrees of merit.

There is the simple juvenile lantern, with single lenses and narrow slides, painted with comic, natural history, or simple astronomical subjects, also entertaining and instructive sets.

Amongst the higher classes of lanterns are the **Russian Iron, Bi-Unial, Triple-Rack Telescopic Bi-Unial, and Tri-Unial,** which are now fitted with the most perfect lenses and all modern mechanical appliances.

# NEW TRIPLE-RACK TELESCOPIC TRI-UNIAL LANTERN.

(Patent No. 14,809.)



The Triple-Rack Telescopic Tubes are Perfectly Rigid.

## LANTERNS AND DISSOLVING VIEWS.

In the illustration, page 68, is a representation of a Single Russian Iron Lantern, to burn paraffin or any mineral oil, rivetted throughout with copper rivets, brass cell for the condenser; the stage, front tube, and sliding tube are made of best brass, mounted on a solid brass foot, making the entire front perfectly rigid, it being quite impossible for the front tubes to give in any way. The stage being open all round allows the slides to be inserted on the top or sides.

The illustration on page 41 represents a pair of Russian iron lanterns with apparatus for dissolving views. These lanterns can be used for lime light, if required.

If you suppose a powerful light to be placed in the lantern on page 42, and a slide with a transparent picture to be put in the slider marked A, the light passes the lens that is fixed in the front wall of the lantern, through the picture, then through the lens that is fixed in brass-work marked B, and finally thrown upon a screen or any smooth, white surface placed to receive it, where it shows the painting of the slide upon an enlarged scale. The extent of the enlargement mainly depends on the power and clearness of the lenses, and also upon the distance of the screen from the lantern; and lenses are manufactured with special magnifying power.

This you must bear in mind—that no light comes to the screen but that which passes through the lens marked B, and that, as light diminishes quickly in intensity, the

more you increase the picture the fainter it will become. Theoretically, there can be no limit to the enlargement of a magic-lantern picture, but practically the limit is very soon reached, and that is regulated mainly by the description of light that you place for use in the lantern. If you produce that light by an oil-lamp, good pictures could be made with the lanterns on pages 41 and 68, and the painted slides described in this treatise, of either six or eight feet in diameter; or if you use the oxycalcium light, or the oxyhydrogen light, the very same pictures may be produced with the same lanterns and slides, extended to twelve or fifteen, or even to twenty feet in diameter.

That wonderful exhibition generally known by the name of dissolving views is produced by means of two lanterns, of equal power and size, adjusted to one another, so that the figures in both are thrown alternately upon the same screen or space, the picture of the one being made to fade away, while that of the other becomes gradually brilliant.

The lanterns are generally made of Russian iron, the slide-holders have springs, to keep the slides in their proper positions; the lenses are mounted in brass cells, and are generally provided with rack-work for adjusting the focus to the pictures. C is part of the rackwork for adjusting the lens to the picture, the adjustment is regulated by the appearance of the picture on the screen. D is the dissolving apparatus as shown on page 41, that is to say, the apparatus for making one picture gradually disappear

while another picture gradually comes before the screen and the spectator.

The change in the picture is managed in this manner: there is a bar attached to the screen D, which ascends and descends in a collar that is screwed to the front of the box on which the apparatus is mounted; it is provided with a rack, which is acted on by a pinion marked E; you turn this pinion by the handle marked F. The pair of lanterns are supposed to be in action, and in each lantern there is a slide; one of these slides will show a picture upon the white screen, while the other end is stopped by the upper level of the screen D; then if the screen D is raised very gradually on turning the handle F, which will cause the dissolver to ascend, the acting slide will then become gradually covered by the ascending comb of one end of the dissolver, while the other slide will, in like proportion, become uncovered by the ascending comb on the other end of the dissolver, so that when your first picture is quite obscured, the second will be seen beautifully bright and clear; that is the manner in which the first picture is made to dissolve or melt into the other picture. The dissolving screen D has a ring, the use of which is to admit of suddenly cutting off the action of the picture in the corresponding lantern; this action is necessary for the exhibition of sudden effects, such as lightning. But the changing of slides in the lanterns for gradual effects must be slow, regular, and noiseless; there must be no jerks or sudden motions.

## LANTERNS FOR USE WITH OIL LAMPS.

The oil to be used with oil lanterns must be of the best quality mineral or rock oil, paraffin, refined petroleum, or kerosene. To prevent the lantern smelling it should always be emptied after each exhibition; great care should be used not to allow a drop of oil to spill on any part of the lantern. The light in the lamp should be lit at least ten minutes before the entertainment commences, leaving the wicks turned down low in order to prevent the front glass and condenser being overheated. The wicks should be most carefully and evenly trimmed. The best lamps for the oil lantern are manufactured with three or four wicks, the former of which is more generally used.

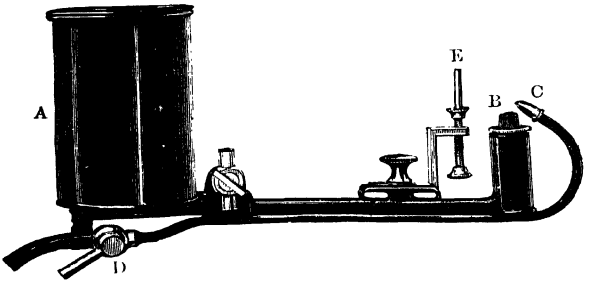
## OXYCALCIUM LIGHT.

One of the greatest defects in all magic lanterns is, when the pictures are magnified to a very large size they become indistinct, in consequence of the deficiency of light afforded by oil lamps, even when constructed on the most approved principles known.

This defect is, in a very great degree, remedied by using a spirit lamp, and forcing a powerful current of oxygen gas into the flame, and then throwing the modified flame upon a cylinder of lime.

This combined arrangement produces a very powerful and brilliant light, sufficient to illuminate a disc of from fifteen to twenty feet in diameter. You should place the

spirit-holder outside the lantern. The wick-holder, the lime, and the oxygen jet are arranged outside the lantern. A waterproof cloth gas-holder is used to contain the oxygen gas. This apparatus is not difficult to manage.




A view of this apparatus is shown above. In every other respect these lanterns are exactly the same as those used with oil-lamps; the only difference is as to the means used for producing the light.

A in cut represents the spirit reservoir; B is the wick-holder, in which there are three tubes, for separate wicks; C is the tube which brings the oxygen from the gas bag, the supply of gas being regulated by the stop at D; C is the jet by which the gas is directed into the flame of the spirit lamp, the wicks of which you must so arrange that the gas does not strike against the cotton, and produce a ragged and uneven flame; so you must carefully divide the wicks, by spreading them out on both sides; E is the wire for supporting the lime-cylinder, underneath is a

milled head for turning the cylinder, so that you present different sides of it to the action of the flame. The front part of this apparatus is put wholly into the lantern, through an opening solely made for that purpose at the back of the lantern.

## OXYGEN GAS, FOR THE SUPPLY OF THE OXYCALCIUM LIGHT.

If steel cylinders of compressed gas are used, they must, of course, be sent to a dealer in lanterns to be re-filled; but if bags are used they can be filled in the following way:—

The articles required are—an Iron Retort, a Purifier, and some Oxygen Mixture.

Oxygen Mixture is made of Chlorate of Potash and black Oxide of Manganese (granulated) in the proportion of three-fourths of the former to one-fourth of the latter.

2¼ lbs. of Oxygen Mixture is enough to fill a bag sufficiently large to last for two hours.

To make Oxygen Gas, the Oxygen Mixture must first be put into the retort. This is done by unscrewing the long arm off the body of the retort, when the mixture can easily be poured in; the arm must then be screwed on again, taking care to see that there is a small cork at the top in the small upright tube provided for it. This cork acts as a safety valve in case the gas should come off too quickly. The purifier tube must then be placed

in any ordinary wine or spirit bottle about two-thirds full of water.

The long arm of the retort must then be connected to the upright pipe in the purifier tube by a piece of india-rubber tubing, and the side pipe of the purifier tube connected to the tap of the gas-bag.

Be sure that the tap of the gas-bag is turned on, and then place the retort on a gentle fire or Bunsen's burner.

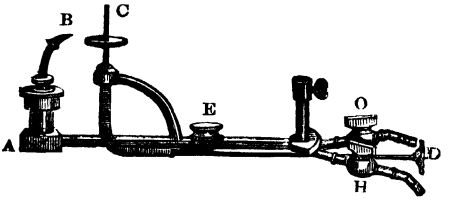
The first bubbles seen in the water of the purifier will show that the gas is coming off. Should it be found to come off too quickly, in consequence of the fire being too fierce, the retort should be taken off and placed at the side of the fire for a few minutes. When there are no longer any bubbles seen in the purifier it will be known that all the gas has come off from the mixture. When the gas is made, turn off the tap of the bag, and take care to remove the tubing between the purifier and the retort, otherwise, as the latter cools, it would suck the water from the purifier and generate steam.

The retort must then be taken off the fire, allowed to cool, and when cold all the residuum must be removed from it by washing it out with cold water. Great care must be taken to see that the retort is perfectly dry before any more gas is made in it.

The pressure-boards are employed to squeeze gas out of the bag when you require it during an exhibition of the lantern. All atmospheric air you must carefully squeeze out from the gas-bag before the oxygen is collected; this is done by rolling it up very closely.

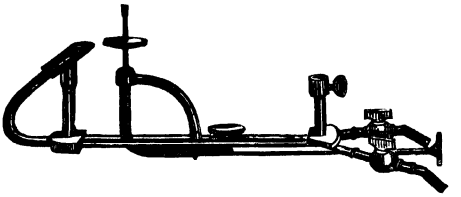
## APPARATUS FOR THE OXYHYDROGEN LIGHT.

The oxyhydrogen light is far more brilliant and powerful than the oxycalcium light; it is produced by bringing upon a lime cylinder the flame which arises from the combustion of a jet of oxygen gas mingled with hydrogen gas, or with coal gas. The two gases are collected in separate gas-holders, and are supplied to the jet by the means of an apparatus as shown in the illustrations below.




The tubes of india-rubber, which convey the hydrogen and oxygen gases from their separate gas-holders, where an even pressure is constantly kept on the gases, and the flow in the proper proportion is regulated by the stop-cocks H and O. The gases mix in a safety-tube A, just immediately before being burnt at the jet B, and then the flame is thrown upon the lime-cylinder C, the lime then becomes white-hot, and a most intense light is produced. You can turn the lime round, or raise it up and down as you please, by means of the screw D, and it may be put to, or further from the jet B, by means of a screw E; the lime, by these means, can be properly placed and kept

opposite the centre of the lenses of the lanterns, which is most important.



The above illustration represents a blow through, or safety-jet, and can be used with ordinary gas direct from any burner with oxygen gas.

## HYDROGEN GAS FOR THE SUPPLY OF THE OXYHYDROGEN LIGHT.

A leaden generator and also a purifier will be required.

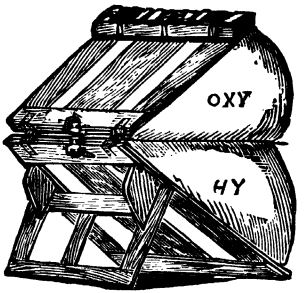
Mix in an earthenware vessel one part of Sulphuric Acid (oil of vitriol) and 7 parts of water, when cool pour it into the generator, which should have had previously put into it about half-a-pound of granulated zinc. The generator must be connected with the purifier and gas bag as before described, when the gas will immediately begin to generate.

Care should be taken to disconnect tubing when the bag is full, as the generater will not stop till worked off. Therefore, "Safety Copper Automatic Generators" are made which stop themselves when the bag is full.

The working of this is very simple. An inner receptacle being filled with scrap zinc placed edgeways, the top dome is bolted down, the taps turned off, and the Sulphuric Acid and water, before mentioned, poured in. Directly the tap is turned on hydrogen gas is generated, either slowly or quickly as required. It is its own safety-valve, and stops when the bag is full.

## CAUTIONS TO PREVENT EXPLOSIONS.

All mixtures of oxygen gas, either with hydrogen or coal gas, explode with great violence when ignited; and great care should be taken to avoid making such a mixture of these gases as will cause an explosion to occur.




These two gases should be collected in separate bags, as shown in the above illustration, or cylinders can be used; and must not be permitted to mix with one another, till they reach the safety tube before referred to, which is packed

with wire gauze, to prevent the return of the flame after the stop-cocks are opened. The pressure should always be sufficient to prevent any of the gas going back into the bags. The weights put upon the pressure-boards, when the bags are full, may be about twenty or thirty pounds, and, as the gas is consumed, you must increase to forty and fifty pounds. You may use blocks of stone or iron for this purpose. A higher pressure is required for the oxy-hydrogen light than for the oxycalcium.

Of course there can be no possibility of an explosion with the oxycalcium apparatus with which only one gas is used.

## PLAIN INSTRUCTIONS FOR MANIPULATING THE MAGIC LANTERN APPARATUS.

Take out the lenses from the lantern, clean them with a soft cloth, or chamois-leather, and thoroughly warm them in winter, especially before you expose them to the heat of the gas flame or lamp—if this caution is not attended to, the lenses often crack from the too sudden action of the heat on damp cold glass. It frequently happens that the water produced by the fuel burnt in a lantern settles as steam on the inside lens, and renders the light obscure; when that happens, you must carefully wipe it off with the warm dry chamois-leather; you must not touch them with the fingers, as that will soil them.

The oil-lamps should be kept clean; they must be free from all thick oil, and the wicks must be quite clean, and not damp, but be well dried and trimmed very

neatly. If you have ragged dirty wicks, or not perfectly dry, or any thick oil in the lamp, it is impossible to have that bright and clear light which is so necessary for the production of good pictures. Pour the oil out, and never let the lamps be put away dirty; they should be washed well with potash, soda, or soap and warm water. In winter, both oil and lamp should be placed in a warm place for some time before using them, so that the oil may be warm, thin, and fluid, and thus adapted to rise freely in the wick.

For the spirit-lamp in the oxycalcium light, the wicks cannot be kept too clean and dry.

Before you commence an exhibition, fill the reservoir of the spirit-lamp with spirit, arrange all the projecting parts of the three wicks belonging to the spirit-lamp, divide them into two equal parts, spread one to the left, and the other to the right, so that the current of gas from the jet C can come through the flame of the lamp, without infringing upon the wick, in order that a single clear jet of flame may strike the cylinder of lime. This must never be neglected, or the jet of gas will strike against the cotton wick, and produce a straggling flame, and then you get no light from the lime cylinder.

Before the cylinder of lime is exposed to the flame, it must be thoroughly heated, to drive off all moisture and render it perfectly dry; for this purpose, it may be held on a wire over the spirit-lamp or clear flame of gas, or, if not, placed on a shovel on a common fire, being first gently heated on the hobs or bars. The lime cylinder so prepared

should be placed on the wire, and it must from time to time be turned round by the milled head; should you neglect the gradual heating of the lime cylinders, they will split almost directly, as the heat of the lamp converts the moisture they contain into steam, and bursts them, and you will be under the necessity of using a large number besides causing much vexation.

When the two lanterns are used, producing dissolving views, you must arrange them very carefully, so that the disc of light and pictures by both shall be thrown exactly on the same space on the screen; the lanterns must then be firmly screwed on to the lantern box in the place provided for them.

The centralising of the views must never be neglected, or the dioramic effects of the dissolving views, instead of being perfect, will appear ridiculous.

The regulation of the weights on the gas-bags, as before explained, must be attended to very particularly; whether two gases are used, or one only, there must be a steady and equal pressure to produce the desired effect; the weights should at first be placed on the lower part of the pressure boards, be gradually raised towards the upper part, and gradually increased in weight; observe how the light looks on the screen, and regulate the pressure on the bags accordingly.

Before any picture is put into the lantern, you must see that the lantern produces a flat, clear, and even disc, which must not be light in the middle, or dark round the edge; nor must the middle be dark, or round

the edge light; nor must there be a circle exhibiting all the various colours of the rainbow, which colours are very beautiful, no doubt, but they are out of place here.

The disc that is most desirable is one which can be got without a single blemish on its surface—neither shadow nor colour. Absolute perfection in this particular is not to be obtained; but we must get as near to perfection as our means will admit. If the disc of light is dark in the centre, you can remedy it by removing the lime-light, or other light, further from the condensing lens; if the light on the edge of the disc is darker than it is in the middle, the light must be brought nearer to the lens; should a shadow appear on one side of the disc only, you can remove the defect, by placing the light more exactly in the centre of the lantern.

When you have procured a clear disc of light, place a slide in the lantern, after you have well dusted it, then well examine the picture, when it is thrown on the disc of light; should it be indistinct, turn the lens backwards or forwards by means of the rackwork, until the screen shows a perfect picture. There is a variable thickness in the substance of the glasses of slides, and also of the wooden frames in which they are mounted, which makes this correction inevitable with almost every slide. If the lantern is fitted up without rackwork-adjustment, the focussing of the pictures is a matter of some difficulty, and very perplexing. But if the lantern has the treble rack telescopic tubes this difficulty is quite overcome (see page 43). If the paintings are mounted in sliders that

are too narrow for the slide-holder of the lantern, a small strip of wood in this form ⌐¬ should be placed into the slide-holder, to raise the middle of the picture up to the centre of the lenses. These arrangements should all be made before you commence any public lecture or exhibition.

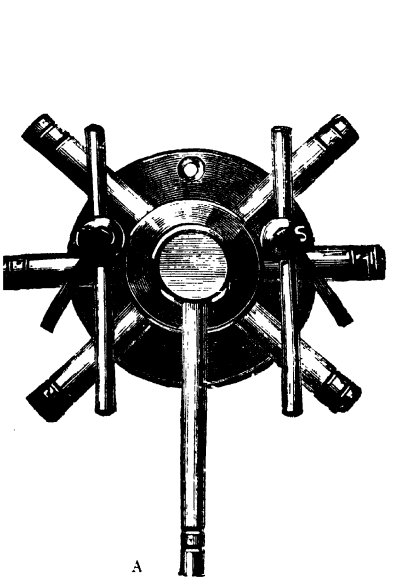
You must keep the lantern, outside and inside, free from any dust, the inside of the nozzle in particular requires care, as it contains the lenses.

Should you desire to economise gas, when exhibiting slides or dissolving views, the gas in the lantern which is not in use may be turned down till it is wanted again; this requires some attention and a little dexterity, but economises the gas, and enables you to use smaller gas-bags.

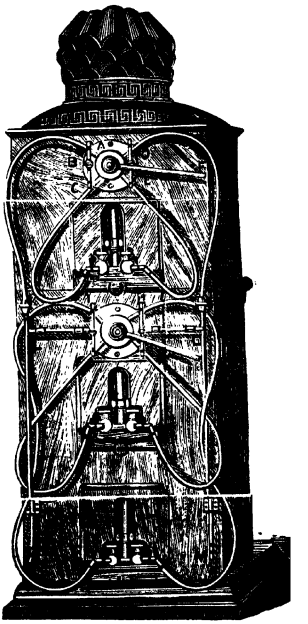
The illustrations (p. 59) represent the dissolving tap, and the manner in which these are fixed to bi-unial or tri-unial lanterns.

The illustration marked A represents the 6-way dissolving tap with double bye-pass (one for the oxygen gas, and one for the hydrogen gas). This can be used for a pair of lanterns or with a bi-unial. The tri-unial lanterns, see page 43, require an extra 4-way dissolving tap as shown in the illustration marked B. The object of these dissolving taps is to do away entirely with the dissolving fan as shown on page 41, besides considerably economising the use of both gases.

The improvement in the chimneys of the lanterns shown on pages 41 and 68 are a great improvement



A



B

compared with the height of the chimneys in common lanterns.

The slides to be exhibited on any given occasion ought previously to be examined; they should be cleaned with a soft, dry brush, or a piece of chamois-leather; and be fixed firmly in their vertical positions; so that slides formed in two parts—like some of those which give

dioramic effects in the dissolving views—may, when shown together, fall correctly into their proper position.

## SCREENS ON WHICH TO EXHIBIT THE MAGIC LANTERN PICTURES.

There are two methods of exhibiting magic lantern slides, the first is upon a transparent screen, placed between the apparatus and the spectators; the second is an opaque screen at the end of a long room, in that case the apparatus is between the screen and the spectators. Of these methods, the one with the transparent screen is most elegant and effective; the one with the opaque screen is the most economical, and, in general, the most convenient.

The Opaque Screen.—The best and cheapest opaque surface that can be had is a very smooth plastered wall, carefully prepared, and freshly whitewashed. A surface of this description of 9, 10, or even 12 square feet can often be easily prepared in any school room, and it renders all other screens unnecessary.

The next best surface is that of a clean, smooth, white cloth, which can be procured 9½ ft. wide; a piece of that width, and 10 feet long, will exhibit the largest pictures that you can make with the oil lamp, and, indeed, will exhibit pictures made with the oxycalcium light, which, though only 9 feet in diameter, are so very brilliant that they can be seen by a large audience.

One of the best ways to keep such a screen flat, and

also smooth, is to mount it in the following manner. The upper edge of the cloth is attached to a wooden roller, 3 inches in width, and 10 feet long. On each end of the roller is a projecting pin, by which it is fitted to two brackets. On the end of the roller is a box, to keep the cloth from running over, while at the other end is a five-inch pulley; then a string passes over this pulley, and again, over a similar pulley, which is fastened to the floor, or on to the wall of a room, in a manner which any carpenter or window-blind maker may easily arrange. The lower edge of the screen is kept straight by a wedge-shaped wooden lath, similar to that commonly attached to a window-blind. The cloth must occasionally be well washed, and then ironed, to keep it always ready for immediate use—or, what is much better, it may be very smoothly covered with stout white paper, pasted evenly over the entire service, and be very frequently white-washed; which will produce a good reflecting surface.

Transparent Screens.—Thin Cambric muslin, of a close texture, strained upon a frame and varnished, answers the purpose of a transparent screen.

The varnish used is made of one part of Pale Drying Oil, and two parts Spirits of Turpentine; but such a screen is expensive, as it cannot be folded up, is inconvenient to stow away, or to preserve it from damage when not in use; it is, therefore, in consequence, not much used.

There is another way of preparing transparent screens; it consists in thoroughly wetting with water the ordinary screen of cloth, and straining it, while it is wet, to the

full extent of its width. If the cloth is becoming too dry during a lecture, you can wet it again by means of a syringe, or with an ordinary watering can.

Large Screens.—A very large screen can only be made by sewing cloth together. If the seam be neatly sewn, it is not at all seen in the opaque screen, and very slightly in transparent screens. Fourteen yards of cloth, of nine feet and a half wide, will give a screen that has a clear surface for pictures of nineteen feet in diameter.

## SLIPPING SLIDES.

Pictures in this series are painted on two glasses, so adjusted to one another that when the picture is shown with the sliding glass pushed in or pulled out the effect is totally different, as shown on pages 37 and 38.

## MECHANICAL EFFECTS.

The apparatus for producing pictures with the moving objects and other dioramic effects consists of slides provided with rack-work, pulleys, levers, slipping, and other contrivances, for giving to pictures on glass the appearances of life, storm, lightning, volcanic action, the motion of water, &c.

THE

# CATALOGUE

OF

# COLOURS & MATERIALS

## For Painting on Glass,

## MAGIC LANTERNS & SLIDES,

DRAWING INSTRUMENTS, &c., &c.

---


J. BARNARD & SON,

Manufacturing Artists' Colourmen

AND

IMPORTERS OF EVERY REQUISITE FOR PAINTING AND DRAWING.




19, BERNERS STREET, LONDON, W.

# J. BARNARD & SON'S

# WATER COLOURS IN GLASS POTS,

EXPRESSLY PREPARED FOR

## PAINTING MAGIC LANTERN SLIDES.


J. BARNARD & SON give special attention to the preparation of Colours or Painting on Glass for Magic Lantern Slides, and believe that these Colours are unsurpassed for brilliancy.

LIST OF COLOURS.

| | Each. s. d. | | Each. s. d. |
|---|---|---|---|
| Green, No. 1 | | | |
| Green, No. 2 | | Yellow | 1 0 |
| Orange | | | |
| Blue, No. 1 | | | |
| Black | 1 0 | Crimson | |
| Brown | | Scarlet | 2 6 |
| Neutral Tint | | Blue, No. 2. | |
| Ox Gall | | | |

Varnish in Bottles ... ... ... 1/- each.
Outlining Crayons ... ... ... -/2 ,,
Etching Points ... ... ... ... 1 - ,,

## Sable Brushes.

Nos. 0 & 1 ... -/7 each. No. 2 ... -/9 each. No. 3 ... 1/- each.
No. 4 ... ... 1/4 ,, ,, 5 ... 1/8 ,, ,, 6 ... 2/- ,,

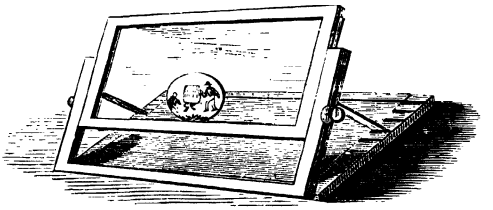
Camel Hair Brushes ... ... ... 1*d.*, 2*d.*, 3*d.*, & 6*d.* each

# J. BARNARD & SON'S

## Boxes of Water Colour Materials for Painting Magic Lantern Slides.

Mahogany Slide-Top Box, containing 10 Colours, Varnish and Brushes, with Instructions ... ... ... ... 2/- each.
Mahogany Slide-Top Box, containing 12 Colours, Varnish, Palette, Brushes, and Instructions ... ... ... 5/- ,,


Polished Mahogany Box, containing 12 Colours in Glass Pots, Varnish, Palette, Brushes, and Instructions ... 21/- each.



**Framed Drawing Stands for Slide Painting** ... ... ... 7/6 each.

# J. BARNARD & SON'S
# Varnish Colours in Collapsible Tubes and Colour Boxes
FOR
# PAINTING MAGIC LANTERN SLIDES,
## WITH INSTRUCTIONS.

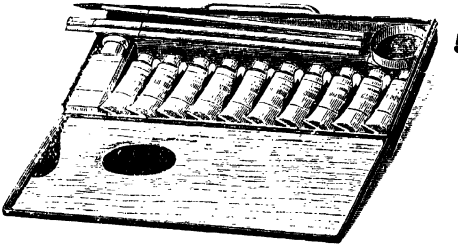
J. BARNARD & SON give great care to the manufacture of Varnish Colours for painting Magic Lantern Slides. The brilliancy of these Colours is unequalled.

## LIST OF COLOURS.

| | Each. s. d. |
|---|---|
| Black ... ... ... | 0 6 |
| Burnt Sienna ... | |
| Green No. 1 ... | |
| ,, ,, 2 ... | |
| Intense Blue ... | |
| ,, Brown ... | |
| New Blue ... ... | |
| Raw Sienna... ... | |
| Yellow No. 1 ... | |
| ,, ,, 2 ... | |


| | Each. s. d. |
|---|---|
| Crimson ... ... | 1 0 |
| Light Blue ... ... | |
| Scarlet ... ... ... | |
| Intense Purple ... | 1 6 |
| Orangeine ... ... | |
| Roseine ... ... | |
| Medium in bottles | 6d. & 1s. |
| Spirits in bottles... | 3d. & 6d. |
| Etching Points ... | 1 0 |
| Outlining Crayons | 0 2 |
| Slide Paintg. Easels | 2/6 & 7/6 |

## No. 1.—JAPANNED TIN BOX OF VARNISH PAINTING COLOURS.



5/-

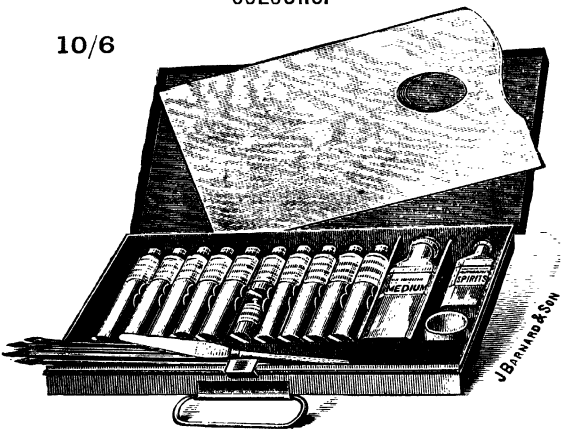
Containing 10 colours in collapsible tubes, bottle of varnish, mahogany palette, and brushes. 5/- each.

# J. BARNARD & SON'S

*Varnish Painting Colour Boxes—continued.*

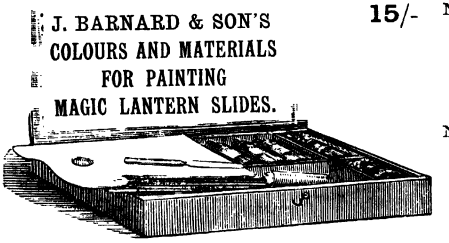
## No. 2.—THE NEW JAPANNED TIN BOX OF VARNISH PAINTING COLOURS.

**10/6**




Containing 11 colours in collapsible tubes, bottle of spirits, medium, dipper, mahogany palette, palette knife, and brushes, 10/6 each.

## MAHOGANY BOXES OF VARNISH PAINTING COLOURS.

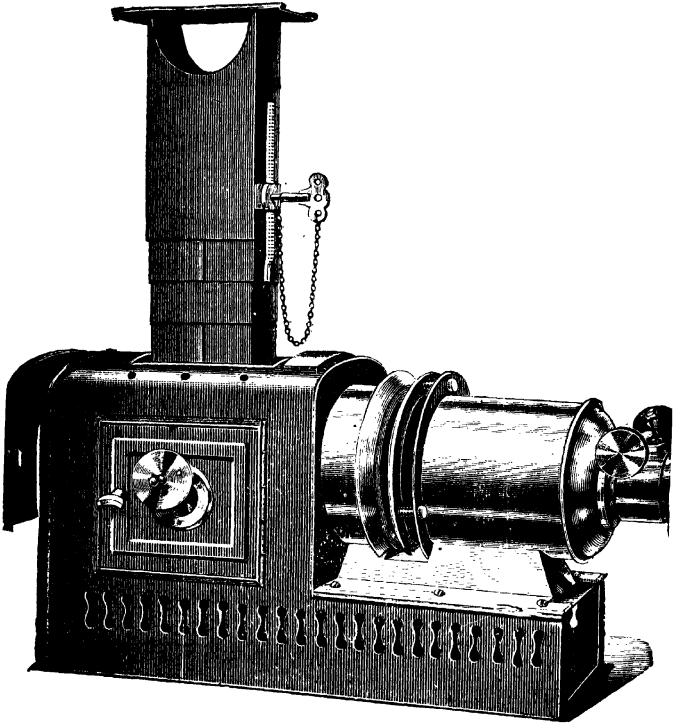



**15/-**

No. 1, containing 10 colours in collapsible tubes, a bottle of medium, spirits, varnish, china palette, palette knife, and brushes. 15/- each.

No. 2, containing 12 colours, medium, spirits, varnish, china palette, palette knife, outlining pen and pencil, eraser, & brushes. 30/- each.

# J. BARNARD & SON'S
# MAGIC LANTERNS & ACCESSORIES.



## DESCRIPTION OF THE RUSSIAN IRON LANTERN.

No. 15.—The body of this Lantern is made entirely of **Russian Iron**, and is fitted with a **brass** cell for the Condenser. The **stage** and **front tube** and **sliding O. G.**

**tube** are made of **brass**, beautifully finished and lacquered, and are mounted on a **solid brass foot**, making the entire front perfectly rigid. The stage is open all round, and therefore allows the slides to be inserted from the top or the sides. This is very useful for chemical experiments. There is a Panelled door fitted with a **brass bound** blue glass sight hole **with brass sliding shutter** on each side of the body, for use when the Lime-light is applied.

The entire **brass front** and **stage** slides in **brass runners** or **guides** which are fixed to the front foot by **brass screws.**

This Lantern is fitted with a 4-inch diameter Plano-convex Compound Condenser in Brass Cell and Double Combination Achromatic Front Lenses (2 inches diameter, 6 inch equivalent focus), in Brass Mount with double pinions to the rack adjustment, and fitted with Sliding Shutter or Flasher, **having a groove to carry shapes of coloured glass for tinting slides.**

The Lamp of this Lantern (either 3-wick or 4-wick ordinary, or 3-wick or 4-wick Patent, or Stocks' Patent) has **wicks 2 inches wide,** with a deep reservoir, which will hold sufficient oil for an exhibition of about 2 hours, which is a great improvement on the ordinary Lamps with shallow reservoirs.

The Chimney has three draws, and, when not in use, slides into the front foot of Lantern body, underneath the brass front, and the front brass toe-plate forms a catch to keep the Chimney in its place.

| | £ | s. | d. |
|---|---|---|---|
| Price, complete in strong Russian Iron Case, with Brass Plate and Thumb Screw (for fixing Lantern on case), with all Brass Stage and Front Tubes and Brass Fittings, and 3-wick Russian Iron Paraffin Lanterns .. .. | 3 | 7 | 6 |
| Ditto, with 4-wick Russian Iron Lamp .. .. .. .. .. | 3 | 10 | 6 |
| Ditto, with 3-wick "Patent" Russian Iron Lamp .. .. .. .. .. | 3 | 15 | 0 |
| Ditto, with 4-wick "Patent" Russian Iron Lamp .. .. .. .. .. | 3 | 19 | 0 |
| Ditto, with Stocks' Patent Lamp .. .. .. .. .. .. .. | 4 | 3 | 6 |
| Ditto, with all the Brass Work **Nickel Plated**, and 3-wick Russian Iron Lamp | 3 | 15 | 0 |
| Ditto, with 4-wick Russian Iron Lamp .. .. .. .. .. .. | 3 | 18 | 0 |
| Ditto, with 3-wick "Patent" Russian Iron Lamp .. .. .. .. .. | 4 | 2 | 6 |
| Ditto, with 4-wick "Patent" Russian Iron Lamp .. .. .. .. .. | 4 | 6 | 6 |
| Ditto, with Stocks' Patent Lamp .. .. .. .. .. .. .. | 4 | 11 | 0 |
| Pair of the Patent Russian Iron Lanterns, complete in Stained and French Polished Double Case, with Lock and Key and Leather Handle, and Improved Brass Dissolver, with all **Brass Stages** and **Front Tubes**, and 3-wick Russian Iron Lamps .. .. .. .. .. .. .. | 7 | 10 | 0 |
| Ditto, with 4-wick Russian Iron Lamps .. .. .. .. .. .. | 7 | 16 | 0 |
| Ditto, with 3-wick "Patent" Russian Iron Lamps .. .. .. .. | 8 | 5 | 0 |
| Ditto, with 4-wick "Patent" Russian Iron Lamps .. .. .. .. | 8 | 13 | 0 |
| Ditto, with Stocks' Patent Lamps .. .. .. .. .. .. .. | 9 | 2 | 0 |
| Ditto, with all the Brass Work **Nickel Plated**, and 3-wick Russian Iron Lamps | 8 | 5 | 0 |
| Ditto, with 4-wick Russian Iron Lamps .. .. .. .. .. .. | 8 | 11 | 0 |
| Ditto, with 3-wick "Patent" Russian Iron Lamps .. .. .. .. | 9 | 0 | 0 |
| Ditto, with 4-wick "Patent" Russian Iron Lamps .. .. .. .. | 9 | 8 | 0 |
| Ditto, with Stocks' Patent Lamps .. .. .. .. .. .. .. | 9 | 17 | 0 |
| Japanned Tin Sliding Tray and Rod, and Short Russian Iron Chimney, for use when the Lime-light is applied .. .. .. .. .. Price | 0 | 3 | 0 |
| Russian Iron Sliding Tray with Brass Rod and Russian Iron Cowl, for use when the Lime-light is applied .. .. .. .. .. .. Price | 0 | 6 | 0 |

# CINEMATOGRAPH,

FOR SHOWING

## Animated Photographs on the Screen

*(Patent applied for).*

**The following are some of the SPECIAL FEATURES of this Instrument:—**

**NO VIBRATION** of the Picture on the Screen, even when running at the highest speed.

**Noise reduced to a minimum. Ordinary Kinetoscope Films used.**

The working is **so perfect** that the Film is **never torn, no matter how many times used.**

The instrument is also a Complete Optical Lantern of best make and finish, in which ordinary Photographic Slides can be projected on the screen during the intervals, while a new Film is being put in position.

## Price of Instrument £36 complete,

*With Patent Double Sliding Carrier Frame, Glass Alum Trough, &c., fitted with a very Powerful Mixed Gas Jet. All packed in Case and ready for use.*

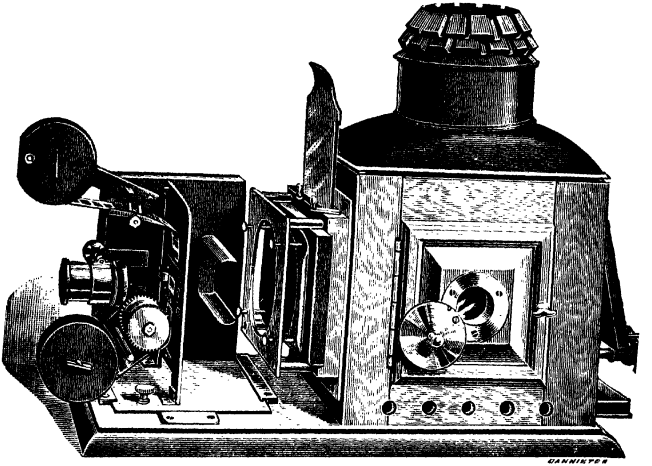
**PRICES OF FILMS ON APPLICATION.**

## HINTS FOR WORKING THE CINEMATOGRAPH,

AND KEEPING IT IN GOOD ORDER.

PLACING THE FILM IN POSITION.—Place the end of the film (where the picture is upside down) under the brass clip on the top spool and wind it all on. Open the lid of the oscillating guide, and the small door (forming the diaphragm of the picture), and

then draw back the spring from the back of the sprocket wheel by turning the small wire handle under the revolving shutting. See that the sprocket wheel is *fixed*. If it is not, turn the *small* driving wheel (carrying the leather band) from left to right till a click is heard. This click shows that it is fixed. Take the loose end of the film from the spool and pass it over the oscillating guide, shut down the lid of it, then pass it down between the two small guides (on each side of the opening through which the light passes), and shut the door or diaphragm, then place it round behind the sprocket wheel, and drag forward the loose end, which should be four or five inches long.



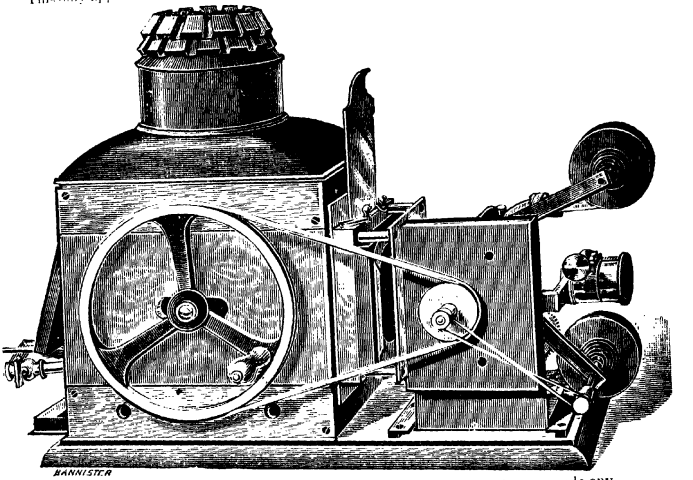
Now see if one of the pictures on the film is exactly central to the small door or diaphragm, and in position to be projected on the screen. When it is in right position, feel round the sprocket wheel and see that the teeth on it are properly engaging in the perforations of the film, and then release the spring against the sprocket wheel by again turning the wire handle under the revolving shutter. Before commencing to run the film through, if it is wished to rewind the film on the second spool provided for that purpose, take the end of the film and pass it under and place it in the spring of the second spool. The small elastic band for rewinding MUST BE CROSSED to make the spool wind the right way (from left to right).

When all is ready, the cap can be removed from the objective and the picture focussed on the screen. The driving wheel on the Lantern body is then turned the *way of the Sun* (from *left* to *right*) at any speed desired, according to the subject of the film being projected. Dancing subjects require a greater speed than others.

The small door or diaphragm is arranged so that it can be raised or lowered by means of the thumb screw. The object of this is to allow an adjustment on the screen in the event of a portion of the next picture being seen, by reason of the film not having been placed perfectly central to the small door or diaphragm. This door or diaphragm

should be placed central to start with, so that it can be moved up or down when the film is fixed.

If it is found at any time that the small door or diaphragm opens and shuts while the film is running through the machine, causing the picture to go in and out of focus, it is because the spool with the film wound on it is not paying off freely. This can be stopped by weakening the spiral spring acting against the spool, or by taking it away altogether. The axle the spool runs on should be oiled to allow the spool to run freely. This only applies to the *top* spool.




Do not use the machine roughly, and do not attempt to take it to pieces or undo any of the nuts, screws, &c. If left alone and used with care it will not easily get out of order, and will only require oiling to keep it working smoothly.

When the apparatus is to be used as an Optical Lantern only, take off the leather band, and then unscrew the bolt from the base, and slide the machine out of the grooves. Then screw the tube and O.G. tube, carrying the large objective into the stage provided to receive them.

LUBRICATING.—Keep all the bearings of the machine well oiled. The two bearings (inside the box) can be brought opposite the two oiling holes by turning the small driving wheel.

## IMPORTANT.

**Never forget to place the Glass Trough (which must be filled with a Solution of Alum and Water) in the stage of the Lantern before turning on the Lime Light. If this is omitted the heat will burn the film.**

# J. BARNARD & SON'S

# NEW CHROMO-PRINTED MAGIC LANTERN SLIDES

These Chromo-Printed Magic Lantern Slides are most suitable for Oil Lanterns, being almost equal to Hand-Painted Slides at one-third of the cost.

SPECIMEN.

SPECIMEN.

COPY OF "JACKDAW OF RHEIMS."

For List of Subjects *see* page 74.

Lantern Readings in prose and verse, written expressly for the chromo-printed pictures, containing every subject, 1/- each.

## J. BARNARD & SON'S

# Chromo-Printed Magic Lantern Slides.

## LIST OF SUBJECTS.

*Mounted on 3¼-inch Square Glasses.*

**4/– per Set of 12 Slides, including Reading for each Set.**

1 Aladdin, or the Wonderful Lamp
2 Arctic Expedition, 1875-6
3 Babes in the Wood
6 Blue Beard
7 Bob the Fireman, or Life in the Red Brigade
9 Cinderella
11 Caliph Stork (an Arabian Night story)
12 Continental Views
13 Curfew must not ring to-night
14 Charge of the Light Brigade
15 Dick Whittington
16 Dogs and Monks of St. Bernard
17 Don Quixote
18 Dwarf Long Nose (an Arabian Night story)
19 Effect Slides, assorted
23 Elephant's revenge
24 Emigrants' voyage to Australia
25 *Fun's* comic edition of the poets
26 Gulliver's Travels
27 Heroes of the Lifeboat (*By permission of National Lifeboat Institution*)
28 Heroes of the Victoria Cross (*By permission of Messrs. Linn Bros.*)
29 Incidents in the life of our Saviour
30 Jackdaw of Rheims
31 Jack the Giant Killer
32 Jane Conquest
33 John Gilpin
34 Jack and the Beanstalk
37 Life of Joseph
38 Little Muck, or the Wonderful Shoes
39 Marley's Ghost (a Christmas carol)
39*a* Life on Board an Ocean Palace
40 Mischievous Tommy
44 Natural Phenomena, or the wonders of nature (entirely new designs)
45 Nellie's Prayer
46 Old London and our Ancestors
48 Overland route to India
49 Pilgrim's Progress
51 Parable of the Prodigal Son (*By permission of Messrs. Nisbet*)
54 Punch and Judy
55 Poor Jeremi, a nigger's love story (*By permission of Hildesheimer & Faulkner*)
Romeo and Juliet
Robinson Crusoe
Robinson Crusoe, No. 2
Scarlet Hood and the Wicked Thief, and the Sleeping Beauty
Santa Claus
Scenes from Pickwick
Sinbad the Sailor
Subjects of Natural History (animals)
Swiss Family Robinson
Temperance Story—The Calculating Cobbler (*By permission of Messrs. Jarrold & Sons*)
Temperance Story—Cash Three (*By permission of Messrs. G. Routledge & Son*)
Tiger and Tub
The Phantom Ship
Twelve Stations of the Cross
The Life of David
Views in London, No. 1
Veto Bill (Temperance Story)
Adventures with Wild Beasts
Beauty and the Beast
Celebrated Places of the World
Comic Characters
Discovery of America by Columbus
Egypt and the Soudan
How "Cissie" Saved her Father (Temperance Story)
Indian Warfare and Western Pioneers
Paul and Virginia
Pictures from the Old Testament
Pictures from the New Testament
Reynard the Fox
Settlers' Life among Indians
St. George and the Dragon
The Miracles of Christ
The Arctic Circle
The History of a Chicken
Views on the Nile
Views in London, No. 2
Handy Andy
Fine Art Gallery
Jessie's Dream, or the Relief of Lucknow

## J. BARNARD & SON'S

# CHROMO-PRINTED PICTURES,

### *In Sheets,*

### *To be Transferred to Glass for Magic Lantern Slides.*

### PRICE 3s. PER SHEET.

*3¼-in. Square Slides. List of Subjects, see page 74.*

**MODE OF TRANSFERRING THE DESIGNS, &c.**—The Coloured Designs should be first carefully coated with Glucine, applied with a hog-hair brush, and allowed to dry—this will occupy two days. The glass must be cleaned and the design cut to the same size, after which the picture must be immersed in clean cold water for a few seconds, next place the coloured surface on to the glass and roll well down with the roller to exclude air bubbles; allow it to remain for a few minutes; after which carefully raise the paper at the edge, removing it entirely, leaving only the Coloured Design on the glass, this should be washed with a camel-hair brush and clean water; blotting paper must then be placed over the picture, which is again to be rolled down. The picture should then be left until perfectly dry, when, with a camel-hair brush, it must be carefully varnished over with Chinese varnish, and allowed to remain until the varnish is dry and hard. If any pieces of blotting paper adhere to the picture, leave until quite dry, and remove before varnishing, with damp leather or sponge. The process is then complete. With regard to mounting the glasses in the frames for the preservation of the picture, it is advisable to place a clear glass, of the same dimensions, against the varnished side of the design, then bind the two together with a strip of thin paper a quarter of an inch wide. This completed, place the two glasses in the frame.

For further particulars, see work on the use of Chromo-Printed Pictures. Published at 6*d.* Price 3*d.*

## LIST OF MATERIALS FOR MAKING MAGIC LANTERN SLIDES.

| | | *s.* | *d.* |
|---|---|---|---|
| Glucine ... ... ... ... ... ... | per bottle 3*d.*, 6*d.*, 1*s.*, & | 1 | 6 |
| Chinese Varnish ... ... ... ... | ,, 3*d.*, 6*d.*, 1*s.*, & | 1 | 6 |
| Prepared Black Varnish ... ... ... | ,, 3*d.*, 6*d.*, 1*s.*, & | 1 | 6 |
| Camel and Hog-hair Brushes ... ... ... | each 6*d.*, 9*d.*, & | 1 | 6 |
| Rollers ... ... ... ... ... ... ... ... ... | each | 1 | 0 |
| Black Paper Mounts ... ... ... ... ... ... | per gross | 2 | 6 |
| Black Paper for binding Slides, cut in strips ... ... | per box | 0 | 6 |
| Square Glasses ... ... ... ... ... | per doz. 3*d.*, per gross | 2 | 6 |

## LANTERN READINGS IN PROSE & VERSE,

Written expressly for the Chromo-Printed Pictures. Price 1*s.*

## *EVENING ENTERTAINMENTS for the MAGIC LANTERN.*

To accompany some of the Chromo-Printed Pictures. By the Rev. W. M. G. Published 1*s.*; Price 6*d.*

# J. BARNARD & SON'S MATHEMATICAL INSTRUMENTS IN CASES.

# J. BARNARD & SON'S

# MATHEMATICAL INSTRUMENTS IN CASES.

## ENGLISH MADE DRAWING INSTRUMENTS.

| | Each. s. | d. |
|---|---|---|
| Size A.—Mahogany book fastenings, velvet lined, pair of 6 in. brass compasses, pe and pencil points, plotting scale, and pencil .. ... ... | 5 | 0 |
| ,, B.—Mahogany case, brass name plate, hook fastenings, velvet lined, pair of 6 in. brass compasses pen and pencil points, pair 4½ in dividers, drawing pen with brass handle, plotting scale, and pencil ... | 6 | 0 |
| ,, C.—Mahogany case, brass name plate, hook fastenings, velvet lined, pair of 6 in. brass compasses, pen and pencil points, road pen point, pair of 4½ in. dividers, brass handle drawing pen, plotting scale, parallel rule, and pencil ... ... ... ... | 8 | 6 |
| ,, D.—Mahogany case, with lock, velvet lined, pair of 6 in. brass compasses, pen and pencil points and road pen point, pair 4½ in. dividers, pair bow pen compasses, hinged nib, steel joints, ivory handle, drawing pen, plotting scale, parallel rule, and pencil, set squares, and curves ... ... ... | 14 | 0 |
| ,, E.—Mahogany case, with lock, velvet lined, pair of 6 in. brass compasses, pen and pencil points, road pen point, pair 4½ in. dividers, pair bow pen and pencil compasses, hinged nib to bow pen, ivory handle drawing pen, plotting scale, parallel rule, pencil, set squares, and curves ... ... ... | 16 | 0 |
| ,, F.—Mahogany case, with lock, velvet lined, pair 6½ in. brass compasses, best quality, pen and pencil points, steel jointed lengthening bar, small spring to pen point, pair 5½ in. dividers (steel jointed), pair bow pen compasses, with spring (steel jointed), pair bow pencil compasses (steel jointed), 2 ivory handle drawing pens, hinged nibs, plotting scale, parallel rule, pencil, set squares, and curves ... ... | 30 | 0 |
| ,, G.—Mahogany case, with lock, velvet, pair 6½ in. brass compasses, extra quality, steel jointed, pen and pencil points, lengthening bar, spring to pen point, pair of 5½ in. dividers (steel jointed), pair bow pencil compasses (steel jointed), pair bow pen compasses with spring (steel jointed), 2 drawing pens, ivory handles, hinged nibs (steel jointed), plotting scale, parallel rule, set squares, and curves ... ... | 40 | 0 |
| ,, H.—Mahogany case, same as G, but in German silver ... | 45 | 0 |

Mathematical Instruments in Cases from 1s. to £5 15s.

Mathematical Instruments can be had separately.

# J. BARNARD & SON'S

# EXTRA FINE OIL & WATER COLOURS,

**Specially prepared for the use of Students, Schools, and Art Classes,**

IN COLLAPSIBLE METAL TUBES AND CHINA PANS.

*Price Twopence each.*



## LIST OF OIL COLOURS.

| | | |
|---|---|---|
| Antwerp Blue | Cologne Earth | Purple Lake |
| Bone Brown | Crimson Lake | Raw Sienna |
| Brown Ochre | Emerald Green | Raw Umber |
| Brown Madder | Flake White | Roman Ochre |
| Brown Pink | French Naples Yellow | Rose Madder |
| Burnt Sienna | Gamboge | Sap Green |
| Burnt Umber | Indian Red | Scarlet Lake |
| Cadmium | Indigo | Scarlet Vermilion |
| Carmine | Italian Pink | Sepia |
| Cappah Brown | Ivory Black | Terre Verte |
| Chrome, No. 1 | Lemon Yellow | Ultramarine |
| Chrome, No. 2 | Light Red | Vandyke Brown |
| Chrome, No. 3 | Medium | Venetian Red |
| Chrome Green, No. 1 | Naples Yellow | Vermilion |
| Chrome Green, No. 2 | Permanent Blue | Yellow Lake |
| Cobalt | Prussian Blue | Yellow Ochre |

## LIST OF WATER COLOURS IN TUBES OR PANS.

| | | |
|---|---|---|
| Aureolin | Gamboge | Prussian Blue |
| Burnt Carmine | Green Bice | Roman Ochre |
| Burnt Sienna | Hooker's Green | Raw Sienna |
| Burnt Umber | Indian Yellow | Raw Umber |
| Black | Indian Red | Red Lead |
| Brown Pink | Indigo | Rose Madder |
| Cadmium | Lemon Yellow | Royal Blue |
| Cobalt | Light Red | Sap Green |
| Crimson Lake | Madder Brown | Sepia |
| Chrome | Mauve | Scarlet Lake |
| Carmine | Neutral Tint | Ultramarine |
| Carnation | Naples Yellow | Venetian Red |
| Chrome No. 3 | Olive | Vermilion |
| Deep Chrome | Orange | Vandyke Brown |
| Dark Green | Payne's Grey | White |
| Emerald Green | Purple Lake | Yellow Ochre |

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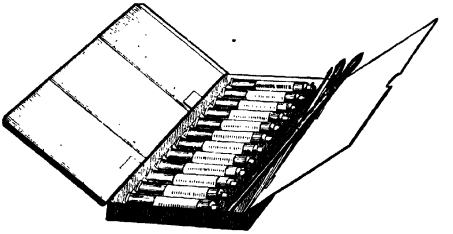

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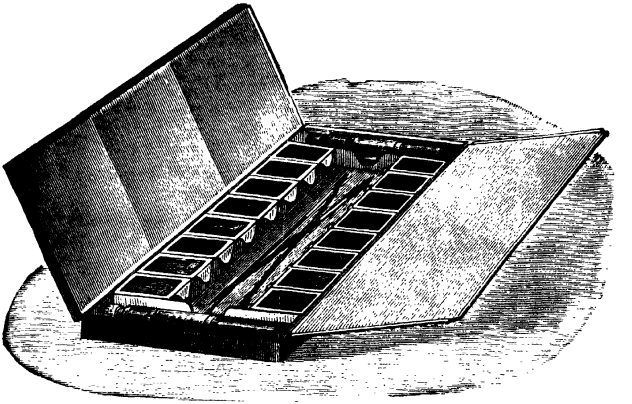

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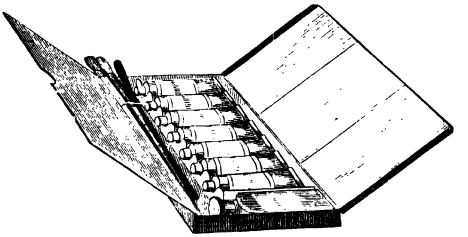

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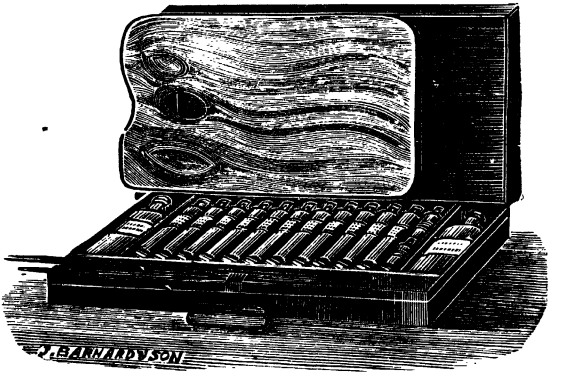


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| Map or Crystal Varnish . | 0 | 6 |
| White Spirit Varnish . . | 0 | 6 |
| Brown ,, ,, . . | 0 | 6 |
| Amber Varnish . . . | 1 | 0 |
| Japan Gold Size . . . | 0 | 6 |
| Refined Linseed Oil . . | 0 | 3 |
| Poppy Oil . . . . | 0 | 3 |
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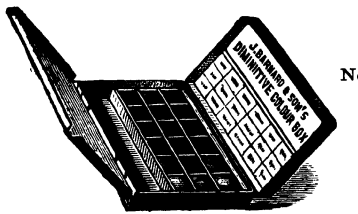


| | | | | Each. s. | d. |
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| 3 | ,, | 10 | ,, | 6 | 0 |
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3-INCH

| Each. s. | d. | | | | Each. s. | d. |
|---|---|---|---|---|---|---|
| | | Antwerp Blue | Flake White | Permanent Blue | | |
| | | Asphaltum * | French Naples Yellow | Permanent White | | |
| | | Bitumen | *Gamboge | Prussian Blue | | |
| | | Blue Black | Indian Lake or | Prussian Brown | | |
| | | Bone Brown | *Lac Lake | *Purple Lake | | |
| | | Brown Ochre | Indian Red | Raw Sienna | | |
| | | Brown Pink | Indigo | Raw Umber | | |
| | | Burnt Roman Ochre | Italian Pink | Roman Ochre | | |
| | | Burnt Sienna | Ivory Black | *Sap Green | | |
| | | Burnt Umber | Jaune Brilliant | *Scarlet Lake | | |
| | | Caledonian Brown | King's Yellow | Silver White | | |
| | | Cappah Brown | Lamp Black | Sacrum or Sugar of | | |
| 0 | 4 | Cassel Earth | Light Red | Lead | 0 | 4 |
| | | Chinese Blue | *Magenta | Terra Rosa | | |
| | | Chrome Green, 1, 2, | *Mauve | Terreverte | | |
| | | and 3 | Medium Megilp | Transparent Golden | | |
| | | Chrome Yel., Lemon | (Special) | Ochre | | |
| | | Chrome Yellow | Megilp | Vandyke Brown | | |
| | | Chrome Yellow, Deep | Mummy | Venetian Red | | |
| | | Chrome Orange | Naples Yellow | *Verdigris | | |
| | | Cologne Earth | Neutral Tint | Verona Brown | | |
| | | Copal Megilp | *New Blue | Yellow Lake | | |
| | | Cremnitz White | *Olive Lake | Yellow Ochre | | |
| | | *Crimson Lake | Oxford Ochre | Zinc White | | |
| | | Emerald Green | Payne's Grey | | | |

The Colours marked with a * are in 2-inch Tubes. The remainder are in 4-inch

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## Superfine Oil Colours in Collapsible Tubes

*(Continued).*


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| Carmine, Fine<br>Citron Yellow<br>Cobalt Blue<br>Cobalt Green<br>Extract of Vermilion<br>French Ultramarine<br>Indian Yellow<br>Lemon Yellow (Pale and Deep)<br>Madder Lake<br>(or Pink Madder) | Malachite Green<br>Mars Orange<br>Mars Yellow<br>Orange Vermilion<br>Oxide of Chromium<br>Purple Madder<br>Rose Madder<br>Strontian Yellow<br>Transparent Oxide of Chromium<br>Viridian | |
| Aureolin<br>Burnt Carmine<br>Cadmium Yellow, Pale<br>Do. do. Deep<br>Do. do. Orange | Carmine, Finest<br>Intense Madder<br>Madder Carmine<br>Violet (or Purple Carmine)<br>Yellow Carmine (or Gallstone) | 1 6 |
| Ultramarine Ash | | 2 6 |
| Ultramarine, *Genuine* | | 10 6 |

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For Oil Painting on White Wood Panels and for Fan Painting it is invaluable.

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THE

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(No. 7.)

# PRACTICAL DIRECTIONS

FOR

# PORTRAIT PAINTING

## IN WATER COLOURS.

BY

MRS. MERRIFIELD,

HONORARY MEMBER OF THE ACADEMY OF FINE ARTS AT BOLOGNA

AUTHOR OF

*"Ancient Practice of Painting," "Art of Fresco Painting," &c.*

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# CONTENTS.

# PREFACE.

THE difficulty experienced by the writer of this little Work in her early practice of Portrait Painting in Water Colours, induced her to think that a few practical directions would be useful, especially to those students who are unable to obtain the advantages of regular instruction.

The writer has endeavoured to acquire from various sources the best information on the subject, and has also essayed to show that the instructions laid down are founded upon the solid principles which were carried out in the practice of the best masters. It will give her unfeigned pleasure to think, that in promoting the attainment of mechanical skill, her little Manual may facilitate the study of this interesting branch of the art.

# PRACTICAL DIRECTIONS

FOR

# PORTRAIT PAINTING

IN

# WATER COLOURS.

## PORTRAIT PAINTING IN WATER COLOURS.

To a person unaccustomed to the use of colours it appears a task of considerable difficulty to paint a head from life, and to imitate with accuracy and precision, or even to be able to distinguish, the delicate gradations of the tints and the correct form, as modified by perspective, of every feature. It is hoped that the directions contained in the following pages will render this delightful study comparatively easy to those who commence it with a competent knowledge of drawing and of light and shade. Before,

however, describing the process of painting a head in water colours it will be necessary to advert to the materials employed—namely, the paper, brushes and colours.

## PAPER.

The paper for painting portraits should be thick, and moderately rough. If too thin, it will not bear rubbing; if too fine and smooth, the colours will be apt to work off; if too rough, it will be impossible to work the flesh up to a fine surface. The paper which many artists prefer is Whatman's extra double-elephant, the size of which is forty inches by twenty-six inches. This paper is sufficiently rough to afford a good hold to the colours, and sufficiently smooth to ensure a good surface. The student should be aware that there is a right and wrong side to paper, and that, as knots and other defects are mostly apparent on the wrong side, all drawings should be made on the smoother side. It is easy to distinguish the right side from the wrong of a *whole* sheet of paper by holding up to the light and looking at the maker's name, which reads properly on the right side but backwards on the wrong. When the paper has been cut, so that the maker's name is no longer visible, it should be held in an oblique direction between the spectator and the light, when the right side may be known by certain little knots and protuberances on

the surface; and the wrong side by hollows where the knots are cut off; and as this side of the paper is not finished with the same perfection as the right side, it would be hazardous to make a drawing of importance upon the wrong side of the paper. A mark should be made with the pencil on the corners of the right side of the paper, before it is cut, that it may be recognised again without the trouble of looking for it.

Having selected a proper paper, the next process is to stretch it for painting. The best stretching board is either the common clamped drawing-board, or a simple deal frame, which is much cheaper, and for this reason it may sometimes be convenient to leave important drawings on the frame, and have new frames for others. The common stretching boards, framed, do not tighten the paper sufficiently; it consequently "bags" when wet, to the serious discomfort and inconvenience of the painter. For better security, and in order to afford a firmer foundation for rubbing or washing out colours, it is advisable to cover the board or frame previously with cartridge-paper, and where this is not large enough, with common calico.

Some artists fix the paper to the boards with glue; others use paste or mouth glue; but for ordinary purposes, flour paste of moderate consistency will be found most convenient. The cartridge-paper should be cut of such a size as to turn over the edges of the

board, and fasten well over on the back; therefore, it should be at least two inches larger than the board, every way. It must then be thoroughly damped with a clean sponge on both sides, and when quite smooth the board must be laid on it, and the edges of the paper, *beyond* the board, must be pasted with a paste-brush, and then turned carefully over the board, taking great care that the corners are well laid. In order to stretch the paper properly, after having pasted one side, the superfluous piece in the corner should be dexterously torn out, and then the *opposite* side should be pasted, not that which is nearest in order. By following the plan here recommended, the paper will be stretched *straight* on the frame, and the corners will not be clumsy.

When calico is intended to be used, it must be nailed upon the frame. As a carpenter is not always at hand, it is a great advantage to be able to nail on the calico one's self. But there is a right way and a wrong way of doing this; and as it is an operation of some importance to the drawing, inasmuch as the paper can never lie straight if the calico under it be not straight, we must devote a few words to describing the process. Suppose A and B the opposite sides of a square wooden frame; C and D the other two sides. Begin by knocking a nail into the middle of side A, then stretch the calico tight and drive another into the middle of side B, opposite to it; a third into

the middle of side C, a fourth into the middle of side D. Then drive a nail into the right-hand corner of sides A and C, first drawing the calico tight towards the corner, then one into the opposite corner of sides B and D. Do the same on the other two sides, pinching up the calico at the corners, and turning it neatly over one corner, fix it with a nail. Now halve the space between one corner and the centre of side A, and drive in a nail at the centre; then the opposite point of side B, and so on until you have driven in five nails on each side, always working from opposite points, in order to keep the calico straight and tight. Having done this, proceed to drive nails in the centre of each space, and its opposite point, until the calico is secured by a sufficient number of nails.

Having covered the boards with calico or paper, next cut the drawing-paper which is to be strained on them; and as the paper stretches by being wetted, the drawing-paper should be cut a little smaller than the board, for it is not at all necessary to turn the drawing-paper over the edges, indeed it is much better not to do so. Take care that every piece of paper, before it is cut, is marked so as to distinguish the right from the wrong side. Now damp thoroughly, and roll your paper the right side inwards, and let it lie and soak. When damping the paper, use the sponge lightly, in order not to abrade the surface. To know when it is damp enough, turn up a corner;

if it springs back, it is not quite damp enough; at the same time, it must not be made so wet as to tear when touched.

While the paper is soaking, paste very smoothly the surface of the strained cartridge-paper, or calico, on which place one end of your rolled paper, and press it on with the damp sponge, unrolling it gradually, and pressing out all the air bubbles, but not rubbing so hard as to spoil the surface. Let the boards dry gradually; if dried by a fire, they will pucker; and remember to place them in a horizontal position, that they may not "bag." The paper shrinks in drying; and as the corners are disposed to dry first, they frequently curl up, unless prevented by weights placed on them.

Leaden, or other metal weights, tied up in silk bags, are useful for the purpose of keeping the paper even. It will be at least twenty-four hours before the strained paper is sufficiently dry to draw upon. If drawn on before it is thoroughly dry, the pencil will make indentations in the soft paper.

# COLOURS FOR PORTRAIT PAINTING.

The colours used in portrait painting may be arranged under two classes, namely, those employed in painting flesh, and those adapted for draperies only.

THE COLOURS FOR PAINTING FLESH ARE

Zinc White, called also Chinese White.
Indian Yellow.
Venetian, or Light Red.
Vermilion.
Pink Madder, or Rose Madder.
Indian Red.
Brown Madder.
Cobalt Blue.
Burnt Sienna.
Vandyke Brown.

THE COLOURS FOR DRAPERIES AND BACKGROUNDS, BESIDES THOSE ALREADY MENTIONED, ARE

Gamboge.
Yellow Ochre.
Sepia.
Lake.
Carmine.
French Ultramarine.
Smalt.
Indigo.
Prussian Blue.

CHINESE WHITE, OR ZINC WHITE,

Is prepared from the oxide of zinc. It has a good body, retains its colour perfectly, and works easily. In these properties it excels every other white pigment which has been hitherto tried as a water colour. It is used but sparingly in painting portraits, being frequently limited to the white spots in the eyes, to the finishing of lace, gold ornaments, and other high lights. It is useful in correcting errors, as will be hereafter explained.

INDIAN YELLOW

Is of a brilliant golden yellow, useful for draperies. It gives a high gold tint when mixed with Chinese White. The fine colour of Indian Yellow causes it to be employed in painting flesh.

Is of a fine yellow colour, inclining to green. It flows well, and the resin which it contains forms a kind of natural varnish, which aids in preserving its colour.

YELLOW OCHRE

Is useful for the local tint of light hair, and for certain parts of landscape backgrounds. It is very permanent and works well.

BURNT TERRA DI SIENNA

Serves for the shadow tints of amber-coloured draperies; it is a useful colour for the greens in landscape backgrounds, and forms with Indigo an excellent colour for green backgrounds. It is also useful in some flesh tints.

VANDYKE BROWN,

A bituminous earth, of a rich and very transparent brown; a valuable colour, but it has the bad property of working up. For this reason, where it is necessary to lay a great body of it, the moist tube colour should be preferred to the cake. Vandyke Brown forms with Lake a fine warm transparent tint, which is much used as a warm shadow colour.

SEPIA

Is a cooler colour than Vandyke Brown. Mixed with Indigo, it is used for distant trees, for a general shadow tint for light backgrounds, and for the shade of white linen and white draperies. With Lake it forms a fine tint somewhat resembling Brown Madder, and with Lake and Indigo it makes an excellent black. It is transparent and permanent, and works well.

BROWN MADDER

Is of a rich transparent russet brown. It forms a soft shadow colour with Blue; alone it may be used to lower red curtains or draperies, and for the darkest touches in flesh.

CRIMSON LAKE

Is a fine colour, but not very permanent; it is employed only in draperies. It will be more durable if covered with a coat of Gamboge, but in this case it changes from crimson to scarlet.

CARMINE.

This colour is of a brilliant deep-toned crimson, possessing great power in its full touches and much clearness in its pale washes. It is somewhat more fugitive than Lake. A good way of using this colour is to procure it in powder, and after putting a small portion into a saucer, pour on it a little liquor of ammonia or good hartshorn. The ammonia dissolves the Carmine, turning it nearly black, but it shortly after assumes a fine red colour. It should not be used in flesh.

PINK MADDER.

The colours prepared from Madder are among the most delicate and permanent of vegetable colours.

Pink Madder is used for the carnation tints in flesh and for pink draperies.

ROSE MADDER.

A deeper tint of the same kind as Pink Madder, for which it may be used.

VENETIAN RED

Is a serviceable colour for general purposes; its tints, though not bright, are clear and very permanent. This pigment is valuable as a general tint for flesh.

LIGHT RED.

A clear and transparent, low-toned Red, similar in character to Venetian Red, with somewhat more of an orange tint.

INDIAN RED

Is of purplish red colour. It makes an excellent shadow colour for flesh, both alone and mixed with blue.

VERMILION.

This colour, mixed with Pink Madder, affords a fine tint for the carnations of flesh.

COBALT

Is of a fine sky blue colour, and the best blue pigment for producing the silvery tints on flesh in water-colours. It also forms the blue tints, and with Indian Red, the shadow colour for flesh. It works well, and is permanent. By artificial light it assumes a purplish tint, which, however, is not perceptible in the flesh.

FRENCH ULTRAMARINE.

A fine blue colour, resembling Ultramarine, which by artificial light acquires a purple tint. It is used in draperies.

SMALT.

A vitrified pigment prepared from Cobalt, of a deep purple blue, used sometimes for shading other blues. It works badly, and must be stippled, not washed. It appears of a red purple by artificial light.

INDIGO.

A vegetable pigment of a deep greenish blue. It washes and works well, is a useful colour for backgrounds, and with Sepia makes a retiring green for distant trees, &c.

PRUSSIAN BLUE.

A fine intense colour. It may be used as a shadow colour with Lake for some kinds of purple draperies.

## BRUSHES.

The brushes for painting flesh should be sables of moderate size, and rather large than small. They should spring well when pressed with the finger, and should terminate in a good point. For hatching, a pointed brush is not necessary—in fact, it is a disadvantage; a red sable brush, the point of which is worn off, is best adapted for this purpose. It should be held as far from the point as possible, between the first finger and thumb (the middle finger being under it), and in such a manner as to allow the free movement of the wrist and arm. The painter should study to acquire a full and firm touch with the brush, and not work upon the point of it. It is well to use an easel, and, if necessary, to rest the hand upon a mahl stick. This position is not only more healthy than any other, but it enables the painter to see more of his work.

## NUMBER OF SITTINGS FOR A PORTRAIT.

In painting a vignette portrait of a head and shoulders, or one with an ordinary background, three sittings are generally sufficient. The *first sitting* commences with the drawing, and finishes conveniently with the first wash of flesh tint; the hatching can be done in the absence of the sitter, when the

background (if the portrait is to have one) can also be worked in.

In the *second sitting* the shadows of the face which give roundness, the colour in the cheeks, the hair, and the figure will be forwarded, the principal folds of the drapery marked in from the sitter, and the masses of light and shade indicated. In the interval between the second and third sitting, the tints of the flesh may be softened; but, until the painter has attained some proficiency, nothing should be added to the flesh in the absence of the sitter. The drapery may be completed either from a lay figure, or from the dress of the sitter borrowed for that purpose.

The *third sitting* is occupied chiefly in finishing, softening, and correcting the likeness.

Lay figures may be had of various sizes, from six inches high to life size. For ordinary purposes a German lay figure from twenty-four inches to thirty-six inches will be found very useful. Wilkie made use of figures about two feet high, which he clothed, and from which he drew his drapery; and, as the drapery of these figures contained but few folds, he obtained simplicity and breadth.

## POSITION OF THE FIGURE.

Before commencing a portrait, it will be necessary to view the face of the sitter in various positions, in order to ascertain that in which it is most agreeable and characteristic. Where the features are very prominent, a full face will frequently be found most pleasing, because in this case the features are less strongly defined. With regard to the three-quarter view, it may be remarked that this position is most frequently selected, because it combines in some degree the profile and the full face. Some care is, however, necessary, in determining which three-quarter view (namely, that which turns towards the right, or that which turns towards the left) presents the face of the sitter in the most favourable aspect; for, besides the difference in the shadow of the nose, it is found that few persons possess both sides of the face entirely alike, consequently in one position they will look better than in another. Profiles are seldom selected in portraiture, although they are sometimes very characteristic.

The position of the head with regard to the body is another point to be considered. When the head is turned in one direction and the body in another, the position is more graceful; but where the head and body are both turned in the same direction, the attitude is more simple. It must be left to the judgment

of the painter to select that position which is best adapted to the sex, age, and character of the sitter, all of which must enter into the calculation of the artist.

The introduction of the hands and arms contributes much to the beauty of the picture. They should be elegant in form, for it is not necessary in all cases to copy them from the sitter; and it should be a rule with the young painter, as it was with Raffaelle, to show both hands, that it should never become a question what was become of the other.

## COSTUME.

Costume is another point of great importance. From the ever-varying and endless caprice of fashion, that arrangement and form of dress to which we are accustomed at the present day will look preposterous and absurd twenty years hence, or even sooner. Within the last thirty years we have passed through all the phases of large bonnets and small bonnets, of long waists and short waists, of wide sleeves and tight sleeves; and the present generation laugh at the odd figures of their grandmothers as handed down by the portrait painter, while future generations will ridicule the costume of the present, not because it is more ridiculous than their own, but because the eye is unaccustomed to it.

That is unquestionably the best dress which, while it gracefully indicates, but does not display, the form of the sitter, is so general as to carry no date, and to be never entirely out of fashion, and which is not overloaded with ornament. It would generally be preferable to leave the arrangement of the dress in a great measure to the taste and selection of the painter, or at least to allow him to give an opinion on the subject. It is said—but for the truth of the story we will not vouch—that a lady whose husband had more money than taste, went to Sir Joshua Reynolds to have her own portrait and that of her husband painted. The lady inquired which were the most expensive colours—Sir Joshua replied, ultramarine and carmine. "Then," rejoined the lady, "I will be dressed in ultramarine, and my husband in carmine." With the present knowledge of art that pervades the wealthy classes, the painter will not frequently have to encounter strong contrasts of glaring colours; but as he will have to treat coloured draperies, it may not be amiss to refer to some of the pictures of Sir Joshua Reynolds and Vandyck, in order to learn the arrangement of colours.

It may, however, first be observed that it appears to have been a general rule with Vandyck, Rubens, Rembrandt, Velasquez, Murillo, Correggio, and other great painters, to place white next the skins of women and children. Sir Joshua was fond of dressing his

figures of ladies and children in white muslin, or in light drapery of a warm neutral tint. He appears to have reserved his strong colours for the portraits of men, who in his day wore more lively colours than they do at the present time.

Generally speaking, Vandyck introduced more positive colour into his pictures than Reynolds. He frequently employed the three primitives, Red, Blue and Yellow, and the tertiary neutrals (brown and drabs). Green and purple are of less frequent occurence but he has some splendid orange-coloured draperies, which he heightened until they approached scarlet, and which he contrasted with blue.

Blue is a favourite colour with ladies, but the arrangement of such a mass of cold colour is a matter of some difficulty with the young painter. Sir Joshua says, that the masses of light in a picture should be of the warm and mellow kind, such as reds and yellows. To disprove the value of this opinion, Gainsborough painted his celebrated picture in the Grosvenor Gallery, which is known by the name of the "Blue Boy." It is a full-length picture of a boy in a blue satin dress, surrounded by warm and rich browns. By some artists, he is considered to have successfully refuted Sir Joshua's proposition ; but Sir T. Lawrence considers that he succeeded only partially—that the difficulty was combated, not surmounted.

It will be useful, then, to ascertain how Vandyck

treated this colour when he was required to introduce it into drapery. He placed linen next the skin, contrasted the blue with warm browns, and generally introduced into the same picture a red or amber-coloured curtain, and an arm-chair, or other drapery of the third primitive colour; and so he maintained an equilibrium of warm and cold colours, harmonising the whole with warm browns and greys. He also frequently introduced a drab scarf on the neck of his figures, probably with a view of giving value to the flesh tints.

Rembrandt was fond of black draperies, which enabled him to concentrate the light on the upper part of the figures.

## ARRANGEMENT OF THE LIGHT.

With regard to the arrangement of the light, the window by which light is admitted into the studio of the painter should be at least six feet from the ground, in order to throw the shadow downwards.* A movable shutter, sliding up and down by a pulley, can be easily affixed, and will be found very convenient. The light should be suffered to fall on the face of the sitter in such a direction as to secure the greatest breadth of effect. If he be placed directly

* The window of Sir Joshua's room was nine feet four inches from the ground.

on one side, and the face be turned towards the light, the shadow of the nose must be very deep, as in nature, in order to give it due prominence; in that case, a dark background is necessary to give tenderness to the shadows of the face. This arrangement is sometimes found in good pictures; but generally speaking, the first-mentioned position is selected. It is almost unnecessary to observe that the painter should sit so that the light should enter on his left hand.

## DRAWING THE FIGURE.

A correct outline is of the first importance, since it is the foundation of the picture; no trouble therefore should be considered too great to secure it.

In order to avoid soiling the paper by rubbing out incorrect lines, it is better to make a correct outline on another piece of paper, and then trace it on the strained paper. We shall first give a few directions for drawing a head, and then shall describe the mode of tracing it on the drawing paper.

First, draw a line to mark the inclination of the head. If a full face is to be drawn, the line will be straight; if it be a three-quarter face, it will be a little curved. Then draw a line, cutting the first *exactly* at right angles, on which the eyes are to be placed. Sketch lightly another line or two below

this for the nose, mouth, and chin. This rule cannot be too strongly impressed upon the student, who would not wish to see one eye higher than the other, or the mouth and nose awry. On these lines block out the features, marking them very square ; and be careful to place them in their true positions and in just proportion, making due allowance for the perspective. Having marked in the general form, go over the drawing carefully, giving every feature its true form and expression.

The drawing being finished, hold it before a looking-glass, when, from the position being reversed, bad drawing will be easily detected. When you are satisfied with the correctness of your outline, lay over it a piece of good French tracing paper,* and mark over the outline with a brush dipped in water-colour. Next take a piece of tissue paper, and rub over it a little charcoal, or red ochre, in powder. Place the tracing carefully on the strained paper, and fix the upper corners by placing the leaden weights on them ; then, without disturbing the tracing, slide the tissue paper with the coloured side downwards under the tracing-paper, and pass over the outline with an ivory, agate, or ebony style, lifting carefully the lower corners now and then to see that every line has been marked. The style must be used with sufficient firmness to leave a

* Excellent tracing paper, of very large size, may now be procured at sixpence a sheet.

mark, but not so as to indent the drawing paper. A small piece of coloured tissue paper will be sufficient, as it may be moved without disturbing the tracing; indeed, it ought to be smaller than the tracing, in order to be introduced between the leaden weights. When the coloured paper is done with, fold it together, to prevent the colour from rubbing off on other drawings. It will serve many times.

The outline being transferred to the drawing paper, it must be strengthened and corrected lightly with a pencil, beginning first at the lower *right*-hand corner, in order that the hand may not efface the impression of the tracing; for the marks left by the red ochre or charcoal are so light that the slightest touch will efface them. Having then secured the outline, remove the red ochre or charcoal by flapping the paper lightly with a handkerchief.

The drawing is now ready for colouring.

The methods of tracing outlines has been described at length, because it is wished to impress on the student the importance of keeping the drawing-paper clean; and because it is well known the great masters were accustomed to adopt a similar process of transferring their designs to the wall or canvas. It should at the same time be understood, that it is strongly recommended that students should make their own drawings in the first instance, and not be contented

with servilely tracing the outlines of the picture they are copying.

Where a drawing is intended to be copied on a different scale, it may be reduced by various methods; either by dividing the surface of the picture and of the space on which it is to be copied, into an equal number of squares, and then copying into each square what is contained in the corresponding square of the original; or the picture may be reduced in a certain proportion by means of proportional compasses; and where a head only is to be copied, the latter method is certainly preferable. It is recommended, however, to draw by the guidance of the eye, and to have recourse to the mechanical methods only as a means of verifying the correctness of the drawing.

## METHOD OF PAINTING.

Painting in water-colours is a totally different process from painting in oil. In oil-painting the lights are opaque, while transparency is preserved in the shades by passing one layer of colour over another which has been suffered to dry before the new coat is applied, and by this means the under colours are seen through the upper layer, and depth is attained as well as transparency. In water-colour painting the colours (except White, which is comparatively

little used) all possess more or less transparency; but as they are not attached to the ground with the same firmness as oil-colours, transparency and depth cannot always be attained by washing one colour over another; for the gum which bound the first layer of colours would be dissolved, and the colours would mix together. If, for instance, in oil-painting, Blue, Red, and Yellow be laid one over the other; the under colours having been suffered to dry, a compound tint will be produced which partakes of all three colours. If the order of the colours be changed, and either Blue or Red be the upper layer of colour, the effect of this compound tint will be different from the former, in which the upper colour was Yellow. If, on the contrary, in water-colours the same three colours, Blue, Red, and Yellow be *washed* one over the other, the colours unite instead of remaining distinct, and blackness, or at least darkness, will be the result. In order, therefore, to attain the depth and transparency of oil-colours, the painter in water-colours is obliged to have recourse to the somewhat tedious expedient of hatching or stippling the three colours separately, and so producing the desired compound tint. The primitive colours so applied will always be more brilliant than the same colours previously mixed together into tints.

Rubens, our own Hogarth and Sir Joshua Reynolds, and other good colourists, were in the habit of work-

ing with the three primitive colours instead of compounding their tints. The directions of Rubens to his pupils with regard to the painting of flesh have been transmitted to us by the Chevalier Mechel. The great artist is reported to have said: "Paint your lights *White*; place next to that *Yellow*, then *Red*, using *dark Red*, as it passes into the shadow; then with a brush dipped in *cool Grey* pass gently over the whole, till they are tempered and sweetened to the tone you wish." These remarks, of course, apply to oil-painting, but the principle is the same in every kind of painting. It will be seen presently how far this principle is borne out in the following directions for painting in water colours.

Stippling consists in working on the part to be painted with fine dots with the point of the brush. Hatching is the same kind of work, but it is executed with lines instead of points. There are different methods of hatching, and probably every artist has his own peculiar mode. After trying several, the following method is recommended.

First work over the space to be covered with the colour with short, wide, regular and somewhat horizontal strokes worked firmly in rows from the top downwards, so as not to leave little blots at the ends of the strokes, preserving at the same time as much as possible the direction of the fibres of the flesh. Speaking generally, this will be horizontal on the

forehead, perpendicular on the nose, and circular round the eyes and mouth and contour of the face. The best way of avoiding these little blots is to use the colour rather dry, and to press firmly on the brush at the beginning, carrying it on to the end of the stroke—and not to begin lightly and end by a firm pressure. Having hatched the strokes evenly one way, cross them slightly with the same firm touch, but avoid crossing them at right angles, or with lines that are too oblique.

This method of hatching produces a very light and mellow effect.

The hatching should be tolerably open, but not too much so.

The effect of hatching on the shadows is to give depth, and enable the spectator to look *into* them, an effect which is never attained by flat washes of colour.

There is one rule which cannot be too firmly impressed on the student, namely, that in water colour painting the first colours should always be bright and pure, because they may easily be lowered to the desired tone; but if their purity is once sullied by admixture with other colours, their brightness can never be recovered.

## GENERAL MAXIMS IN COLOURING.

If the face were an entirely flat surface in which the features occasioned neither projections nor depressions, nothing more would be necessary in painting a representation of it, than to cover it with a uniform flat tint of flesh colour. But as there is scarcely any part of it which is perfectly flat, the gradations of light and shade are innumerable. These gradations of light and shade claim the earnest attention of the student, and are, perhaps, best learned from a plaster cast, where they are separated from colour.* The following general maxims relative to the aërial perspective of figures should be well understood by the student before he proceeds further with the painting.

Nature relieves one object from another by means of light and shade, and we find everywhere light opposed to dark, and dark to light.

The shadows of objects in the open air are less dark than those within doors, because the former are lighted up by the reflection of the sky and all the surrounding objects, while within doors the light is limited, and reflections are less apparent.

The colour of most objects is best discerned in the middle tints; strong colours are reserved for the parts

* It is a good plan always to keep a white bust at hand as a guide to the light and shade.

nearest the eye ; receding objects are more faint in colour than those near the eye. Lights are less affected by distance than shadows, which grow paler as the distance increases. The highest lights have generally but little colour, for all colour is a deprivation of light.

All retiring parts partake more or less of grey.

Strong shadows should be warm, those of flesh (which is semi-transparent) always incline to red.

All the shadows of flesh must have grey edges. This prevents hardness, and gives great richness.

The reflected lights of flesh are warmer than the surrounding parts.

The darkest parts of shadows are near their edge, the middle being lighted by reflected lights.

## SETTING THE PALETTE FOR PAINTING FLESH.

To set the palette for painting flesh, arrange the colours in the following order ; the lightest being placed near the thumb :

Indian Yellow.
Venetian Red.
Vermilion.
Pink Madder.
Brown Madder.
Indian Red.
Cobalt Blue.
Sepia

Although these colours only are named, it is proper to observe that good flesh tints may be composed of other reds, blues, and yellows besides the above; indeed, every artist has his own palette of colours. Some use pigments of a low tone, such as yellow ochre, indigo, light red, pink madder; others employ more brilliant but less durable pigments.

The colours are sometimes used pure, and sometimes different tints are formed of them, namely, Indian Yellow and Venetian Red for the flesh colour, Vermilion and Pink Madder for the carnations, Pink Madder and Brown Madder for the markings of the lips and nostrils, Indian Red and Blue for the shadow colour, Blue and Yellow for the green tints, all of which may be mixed when required. A small pallette, which is most convenient for painting the flesh, should be set apart for this purpose, the middle being kept clean for mixing the tints, for much depends upon preserving the colours clean and bright.

## FIRST PAINTING.

We shall divide the process of painting into three parts: the first of which consists of the outline and dead colouring; the second, of the painting; the third, of the finishing.

The preceding axioms being well understood, we

proceed now to give directions for painting the head of a fair person.

Having carefully drawn the head and figure, rub them lightly with bread or india-rubber, so as to leave only a faint outline, which will not interfere with the colours; then make a firm outline with the brush, laying the proper colours upon every part, and as near as possible in the full strength at once, carefully copying the forms and improving the drawing. For example, put in the pupil of the eye with Sepia (if so it happen to be), the iris with Cobalt, lowered with Sepia for a grey or blue eye, or Vandyke Brown for a dark eye; the eyelashes are marked with Sepia, and the eyebrows indicated with the same. If the outline of the nose be in shadow it may be marked out with Brown Madder; the ear may also be outlined with the same colour; the nostrils with Brown Madder and Pink Madder; the deep shadows of the mouth with the same tint. The most important and characteristic shadows of the face should then be put in and as near as possible to their full strength, with the general shadow colour, which is composed of Indian Red, lowered with Cobalt, but not to such an extent as to acquire a slaty tint. This mixture of Cobalt and Indian Red forms a beautiful clean colour for the shadows. The important shadows are in the sockets of the eyes, on the lower part of the nose, and below it, beneath the chin, and below or behind the ear.

These shadows are to be partly washed, partly hatched. Then put in the blue shadow under the lower lip with Cobalt.

The lips are next to be coloured with Vermilion and Pink Madder. This colour should be stippled on, and the lights in the lips may either be left or taken out afterwards. The whole of the face (except the eyes) is then to be washed over with a light tint of Venetian Red. While this is drying, outline with Sepia the principal divisions and locks of the hair, beginning with the darkest and most decided forms, until the whole of the hair is well made out with touches of proper strength. White linen next the skin may then be outlined with a tint of Cobalt and Sepia, and all other objects are to be outlined with their real colours, beginning as before with the decided tones and touches which give form to the object.

We have then an accurate and coloured outline, in which the principal shadows are indicated. It is in vain to attempt to complete the picture with shadows and colour if these preliminary steps are defective. If this part of the work be well executed, the resemblance and general effect are secured at the commencement of the work.

The Venetian Red tint on the face being now dry, hatch the whole face with the same colour, using it thin and flowing, but not too wet, beginning on the

forehead, and directing the short strokes as nearly as possible in such a manner as to give to this part the round appearance which it has in nature. Having hatched once over the face, cross the hatching by going over it again ; but take care that the strokes are but little crossed, and especially not at right angles. It is to be understood now, once for all, that in painting flesh, all the colours, with the exception of the first wash of Venetian Red, are to be *hatched* in the manner recommended (p. 31), and not *washed*. Some portraits, especially those of men, require a light tint of Indian Red to be hatched over the lower part of the face upon Venetian Red,

## SECOND PAINTING.

Proceed now to put in the shadow on the forehead with Indian Red, keeping strictly to the form. Then the dark shadow in the socket of the eye with the shadow tint of Indian Red and Cobalt, working on the edges of the shadow with pure Cobalt, and preserving accurately the form of the shadows. Mark the edge of the upper eyelid with Indian Red.

Remember, as a general rule, that the edges of all shadows must be grey. In order to be satisfied that this rule is founded on nature, lay a piece of card or a pencil on white paper, and observe the dark shadow

with the grey edge beyond it. This grey edge is less perceptible by artificial light than by daylight.

Next work the colour on the cheek, which is composed of Vermilion and Pink Madder, observing the gradations of colour and light on the cheek-bones; stipple the edges of the colour near the nose, bring the colour well up to the temple, and diffuse it over the cheek towards the ear, and a little on the chin. This done deepen the extreme shadows where they require it. Then hatch over the shaded part of the forehead with Blue, making it bluer at the retiring edge, and carry the Blue down the nose if necessary. It will be observed that in shading the forehead, the red shades were placed first, and the blue above them The reason for so doing is, because it is found that if the red shadows are laid *below* the blue, the colours will look clean and bright, but if the blue is first laid, the effect will be dirty. We shall notice hereafter that this practice is in accordance with the principles of Rubens.

Now work a cool green tint, composed of Cobalt and Indian Yellow, over the socket of the eye: this part should be stippled, not hatched. Work blue over the shadow at the edge of the lower jaw, observing the true form and depth of the tint, and especially marking the angle of the lower jaw. Put in the blue shadow on the temples. Soften the edges of all shadows by stippling on them.

In the process of working, white spots are frequently left: these must be filled with the proper colours. It is better, indeed, to look frequently at the painting while in progress, and fill up these white spots as they are discovered. Sometimes the hatching will appear too wiry, in which case wash it several times with a clean brush dipped in water. in order to blend the tints. It may also happen that the tint is worked in too dark. In this case, hatch with a clean brush dipped in water only, without colour, and remove the loosened colour by rubbing it gently with a soft old handkerchief.

It is now time that the background should be painted, because this must determine the depth of colour to be given to the face and hair. The effect of the white paper round the head is to make the colours by contrast darker than they really are; but let a dark background be worked in, and the flesh tints, which before this were dark enough, now look pale as compared with the background.

The subject of backgrounds will be treated more fully in another place. It will now be only necessary to observe that a very agreeable green background may be made of Indigo and Burnt Sienna, of Indigo and Sepia, or of Indigo and Vandyke Brown. This should be washed on, and the gradations of light and shade duly indicated by a deeper or lighter colour; then the surface is to be flattened by touches which

are half hatching and half washing. The work should be broad (that is, not too fine) on the background, but should be finer as it approaches the face. Then wash over the dress, and put the shades into the linen with Sepia and Cobalt.

Next hatch a light tint of blue over the lower and retiring part of the cheek; put in the blue shadow below and at the corner of the under lip, keeping its form well defined, and unite it gradually with the blue shade of the jaw, Work in a blue tint under the nose, and a little of the shadow colour on the wing of the nostril. Soften the edge of the chin, and round it with the shadow colour.

Now put in the warm colour for the reflected light under the chin with a tint composed of Venetian Red and Indian Yellow, which is sometimes called the flesh colour. Work a little of the same tint on the dark shadow in the sockets of the eyes. Soften the shaded side of the iris with the shadow colour, finish the lips by stippling them with Vermilion and Pink Madder, and observe that the more distant part is less vivid in colour. The principal work at this period of the painting consists in softening the tints by working on their edges.

Having advanced the painting of the flesh thus far, proceed next with the hair, by strengthening the extreme shades with Sepia.

The difficulty of painting hair consists not so much

in the colouring as in the drawing; for so the continual touches which give the form and flow of the hair may properly be termed; and to this point the attention of the student must be continually directed. We will first give directions for painting brown hair. For the local tint use Vandyke Brown and Sepia, and with this work on the deepest shades with a touch that is neither too wiry and defined, nor too washy; then go on with the next deepest shades (the deepest tints having been already laid in their places when marking the outline) and so on, retouching and strengthening, when necessary, the extreme darks and leaving the lights, which must be gradually covered with light touches, giving them the form of hair, until even the extreme lights are covered with a light tint of this local colour, taking no notice for the present of the blue tint perceptible on or near the lights. These high lights are afterwards to be taken out. When the local colour is not sufficiently warm, apply the flesh tint, composed of Venetian Red and Indian Yellow.

Should it be desired to paint dark or black hair, proceed in the same manner, using Sepia only instead of Vandyke Brown and Sepia, adding for the extreme darks a little warm black (composed of Sepia, Lake, and Indigo). And remember that in black and dark hair the lights are cold and bluish, and that there is always a warm tint between the light and the extreme darks.

For flaxen hair, begin as before with Sepia, of a proper degree of strength. The next darkest tints are composed of Vandyke Brown with or without Sepia, then the Flesh colour (Venetian Red and Indian Yellow). The local colour is either Yellow Ochre or a tint formed of Indian Yellow and Venetian Red, which, from being more transparent, is perhaps preferable, although the former, from its semi-opacity, has more solidity. The high lights of flaxen hair are yellow, and there is a cool grey tint between the lights and shadows. In all cases the high lights of hair are taken out afterwards, when the tints already described are quite dry; and to allow time for this, it is usual to leave the hair in this state, and go on with the neck, arms, and hands, when they are visible.

Be careful to introduce shadows or grey tints between the flesh and the hair, and to soften the extremities and outlines of the latter where it meets the background, that it may not appear inlaid.

The colour on the shaded side of the neck is Indian Red and Blue, on the light side Blue only. The green tint on the neck is to be given with the flesh colour (Venetian Red and Indian Yellow) hatched over the blue. Proceed in the same manner with the arms and hands, using, however, Indian Red alone for the first tints in the same manner as on the forehead, then working over them, when necessary, with Blue, observing the reflected lights, which are always warm.

The divisions of the fingers may be painted with Brown Madder and Pink Madder. The tips of the fingers, the knuckles and the outside of the hands, are more rosy than the other parts, and require to be hatched with the carnation tint of Madder and Vermilion.

Next, wash over the white linen with a general middle tint, without regarding the high lights, which are to be taken out afterwards. Wash a local colour also over the drapery, covering even the high lights.

## THIRD PAINTING.

The whole of the paper is now covered with a tint, more or less dark, and a general harmony should pervade the whole picture; in which, however, a few sharp high lights and strong darks are still wanting to give finish and solidity. But before proceeding to execute this, examine your work carefully, make the forms very perfect, and beginning at the upper part of the picture—the eye, for instance—finish as you proceed. Observe that the darkest parts of the shadows are near their edges, the middle parts being lighted by reflected lights. If the shade tint above the eye is too purple, correct it with green (The green tint, it will be remembered, is composed of Blue and a very little Indian Yellow.) Should this tint be found too green, use instead of it, the flesh colour.

Lower the blue tint of the iris with Sepia and Cobalt, also the white of the eye with the same. If the eye is of a greenish tint, warm the grey with the flesh colour. Paint the eyelashes with Sepia, broad, like a shadow, not divided into hairs. There is sometimes a brown shadow under the eyelashes when the face is seen nearly in profile; this is to be done with Vandyke Brown. The principal light on a face is generally on the forehead; this light may now be taken out.*

Soften and round every part that requires it, Remember that shadows indicate the form, therefore make your strong shadows very full in colour and accurate in form; let them also be sharply defined and warm in colour; and let every shadow have a grey edge. Keep your half tints broad and very cool. If your shadows are too purple, neutralize them with green; if too green, work on them with purple; if too blue, hatch them with orange (Venetian Red and Yellow). Where the tints are decidely green, Blue and Yellow may be used: where they are less decided, use the flesh tint, or even Venetian Red alone, where the flesh tint would be too green. Make all retiring and rounded parts grey. Finish the corners of the mouth with a line or two of the shadow colour, softening the edge with Blue. There

* The method of taking out lights will be described in another place.

is also a little blue shade at the corners of the lips. The deep shadow under the chin has a little Sepia with it. The edge of the shadow on the forehead is greenish. In painting the ear, which is semi-transparent, let the shadows be warm and inclined to red. Soften every part of your work, and if the hatching is too wiry, work on it with a brush dipped in plain water, and wipe it with a soft handkerchief.

The mechanical process of painting a head from the first outline on the paper, until its completion, has thus been described. It remains now to point out how far the instructions of Rubens, quoted in a former part of the work (p. 31) have been followed, and it is wished at the same time to call the attention of the student to the principle upon which this system of colouring is based. The high light on the forehead uniting with the general flesh tint of Venetian Red, and thence spreading into Indian Red in the shadows, corresponds, as far as it is possible for water-colours to do, with the order observed by Rubens; namely, white, yellow, and pale Red tints, increasing in the shadows to dark red. The blue tint with which the greater part of the flesh is toned, and which being worked over red produces the effect of grey in the method we have described, corresponds nearly with the "cool grey tint" with which Rubens harmonized the whole of the flesh. It will be seen that the various tints of the flesh have

been imitated chiefly with the three primitive colours, Red of different tints, Blue, and Yellow; and there is no doubt that although for convenience we make use of different kinds of red (namely, Venetian and Indian Reds, Pink Madder, and Vermilion), it would be very practicable to produce an equally good effect by using only pure Red, Yellow, and Blue. This last method, it is true, requires considerable skill in colouring and compounding the tints; and as Nature has furnished us with trustworthy pigments of various useful tints, it is much easier and more convenient to make use of them than to limit ourselves to the three primitive colours.

It frequently happens that when the drawing is seen with the light entering on the left hand, as is usual in painting, that the hatching appears soft and even; but that when seen in an opposite direction it looks rough and wiry; for this reason it is advisable to place the drawing in different lights, and work on it until it is perfectly smooth and even, taking care not to deepen the colours. This is easily avoided by working *between* the hatching. It will occasionally happen that the paper, although very pleasant to work upon, is too rough to allow of very delicate finish. In this case lay a piece of tissue paper upon the face, and rub it with some round object, hard and polished, such as a child's ivory ring, or the handle of a key. If the paper has been stretched on a frame it will be neces-

sary to place something hard and smooth (a piece of plate glass, for instance) carefully at the back, under the part to be rubbed, in order to avoid injuring the drawing or tearing the paper. Continue the rubbing until on feeling it with the finger the surface is found to be quite smooth. You may then work it to any degree of finish, and may repeat the rubbing, if necessary.

It may perhaps be thought unnecessary to cover up lights which are afterwards to be taken out; but it is universally acknowledged that lights taken out from a body of colour are much more effective than those which are left during the painting. The mode of taking out lights is as follows:—Mark out their form accurately with a clean brush dipped in water only, then rub them smartly, but with a horizontal and light movement of the hand, with a crumb of bread or a soft piece of rag. A circular movement of the hand would abrade the surface of the drawing, but the horizontal movement does not injure it. The longer the time—for instance, while you can count eight or ten—that is suffered to elapse before wiping out the light, the stronger the light will be; if the bread or rag is applied immediately, the light will be less bright. The bread used for this purpose should be moderately stale, and in dry or warm weather, when it is in frequent use, it may be kept in working condition by wrapping it in a damp rag.

If the outline of any part is too hard or cutting, soften it by working upon the edges with the adjacent colours, for there are no outlines in Nature, and particularly in flesh, where every part is round and soft.

The spot of light in the eye is put in with Chinese (zinc) White. The best method of applying this is to hold the tube in your left hand, and dip a finely pointed brush into it. Or a little may be put on a palette, when it must be mixed up with a brush, and applied by taking up a little on the tip of the brush, continually dipping it in fresh colour.

As water-colours dry without gloss, it is sometimes necessary to gum the extreme shades, in order to give them depth. But the gum must not be applied until the painting is finished. It is sometimes used on the background, where it may either be mixed with colour or worked on alone. The strongest gum-water that is ever necessary in painting consists of one part of gum and seven parts of filtered rain or distilled water, but it may be used much weaker. The less gum that is used the better.

The foregoing directions relate, as has been already mentioned, to the head of a fair person; but if the instructions have been carefully attended to the student will have but little difficulty in painting any complexion. It may, however, be observed that the shadows and half tints of some persons incline to

green; those of others to purple. Dark persons have always more yellow in their complexions than fair ones, and their shadows will consequently be greener. In some complexions it will be necessary to work a reddish tint, composed either of Venetian Red and Indian Yellow, or of Vermilion and Pink Madder, over some parts of the face; the eye will be the best guide in this respect.

In making copies in water-colours of paintings by the old masters and Sir Joshua Reynolds, some artists are accustomed to lay body colour on the lights in order to produce a closer resemblance to the original. The best mode of doing this is to lay on pure White, in the form of the lights, and when dry to pass over it lightly and quickly with a soft brush a transparent tint which will match the colour of the original. Care must, however, be taken not to disturb the white paint, for this would mix with the upper layer of colour, and produce a muddy tint.

White paint is also useful for putting on different white lights such as the pattern of lace, pearls and gold ornaments (which last must be afterwards glazed with some transparent colour), but it must be used sparingly, and may be glazed or toned down to any tint.

It is also useful in making corrections or alterations where it would be inconvenient to wash out the part. In this case the White is laid on so thickly as to

cover what is beneath, and when quite dry, the necessary colours are to be painted over it.

## DRAPERIES.

Draperies are to be painted in the same manner as the hair, beginning first with the large folds which give shape to the masses, then the folds of the next size, and then the local colour, leaving the lights which are to be but thinly covered with colour. When quite dry, the high lights are to be taken out. Observe to make the folds angular, to give them proper form, and to preserve the reflexes, which, like those in the flesh are warmer than the surrounding colour.

Although too close an imitation of different stuffs is disapproved by the best writers on Art, it must be observed that woollen and silk stuffs have characteristic differences, which should not be overlooked by the painter. These differences will be perceptible in the form of the folds, and in the manner in which the light glances on them: and they should be rendered with such a regard to truth, that there should be no difficulty in deciding of what material a drapery is composed.

As a general rule, with regard to draperies, it may be remarked that where the lights are cool, the shadows should be warm, as in white draperies, where the middle tints consist of Cobalt and a little Indian Red,

and the shades of Sepia. But white drapery is modified by the surrounding objects; for example, where the background is green, the shades and middle tints of white drapery will incline to green; where the background is blue, they will partake of that colour.

In black draperies, the lights should be cool and the shadows warm. A good colour for black draperies is made with Sepia, Lake, and Indigo, which, if properly mixed, make as fine a black as can be desired.

In blue draperies the lights and half-lights are cold, the shadows warmed with Lake, or Lake and Sepia; and where the blue approaches purple, with orange. Cobalt may be used for the lighter tints; and for the shadows, French Ultramarine strengthened in the deepest parts with Indigo and Lake. When black—black lace, for instance—is contrasted with deep blue, the former must be very warm; and instead of black, warm browns, heightened, if necessary, with Venetian Red, should be used; for these by contrast appear black.

In yellow draperies, the shades are of Burnt Sienna, finished with Vandyke Brown, and the local colour, Gamboge or Indian Yellow.

As a general rule, the middle tints of all draperies are to be cool.

## BACKGROUNDS.

The subject of backgrounds is one of great difficulty to the painter; and so deeply was Sir Joshua Reynolds impressed with this truth, that, although he frequently entrusted different parts of his pictures to his pupils, he always painted the backgrounds himself. In a work limited, as the present is, to the technical part of the Art, it is impossible to enter at length into this difficult subject. We, shall however, offer a few practical observations for the guidance of the student.

As the figure should always be the principal object in a portrait, the background should be devoted to repose; that is, it should be quiet and unobstrusive—painted with retiring colours, which cause it to recede far behind the head of the sitter. It should consist of broken tints, and not of one uniform colour; and it should be lighter in some parts than others, that the figure may not appear to be inlaid. If objects are introduced into the background, they should be few in number, and should be kept subservient to the figure. The latter remark is applicable also to landscape backgrounds, which should consist of broad features, and few details, and should be kept low in tone. The introduction of a few warm tints into the sky near the horizon serves to repeat the colour of the flesh. The horizontal line should not be placed

too low. The chief use of the "bit" of landscape and sky which we so frequently find in the portraits of Vandyke and Reynolds, seems to be to extend the light, which would otherwise have been confined to the figure.

There are two ways of relieving a figure:—in the one the light is on the figure; in the other the figure appears dark on a light ground. For portraits the former is well adapted; and the tint of the background, which is always kept low, in order to throw out the head, may be varied through all possible gradations from the shadow thrown on a white wall to the depth and obscurity which surrounds a figure placed just within an open window or door. Light backgrounds involve less labour, but they have not the force of dark ones; for that light will always appear brightest which is surrounded with the most intense dark. Some part of the figure should be lost in the ground, while part should come sharply out of it.

With regard to the colours used in backgrounds, the observation already made as to laying in pure and bright colours in the first place may be here repeated. A bright red or amber-coloured curtain, or a clear blue sky, may be lowered to any tone required, but dirty colours can never be made to look bright.

A red curtain may be painted in the following manner: Mark out the folds and shadows with

Sepia, then lay a coat of Carmine; and over that when dry, a coat of Gamboge. Deepen the shadows with Sepia and Lake, or Brown Madder. Lower the red tint by hatching with broad touches with Brown Madder; lower it still more, if necessary, with Sepia, either alone or with Lake, and if that does not throw it sufficiently back, hatch it with Blue, which will make it retire considerably further.

A blue sky may be lowered with Indian Red or Sepia, according to the tint desired to be produced. An amber-coloured curtain may be coloured with Gamboge or Indian Yellow, shaded with Burnt Sienna, and afterwards with Vandyke Brown, and lowered with Sepia. If it be desired to make it still more distant, blue must not be resorted to as in the former case, for that would communicate to it a greenish hue, but a little of some red colour must be added to the blue to neutralize it and make the yellow retire. This effect is also assisted by painting a black pattern upon the yellow curtain, as was the practice of Vandyke and Paul Veronese.

For landscape backgrounds, the sky and distance may be painted with pure Cobalt, the clouds with Indian Red and Blue, or with Venetian Red and Blue; a warm colour may be given to the horizon by touches of yellow and flesh colour.

The distance begun with Cobalt, may be continued as it approaches the eye with purple made of Cobalt

and Lake. The next gradations may be Cobalt and Sepia; for the next Indigo and Sepia, adding more Sepia as the ground approaches the eye. A yellow tint may be given to the distant trees and herbage by Gamboge, but no brown warmer than Sepia should be used for distant trees. The sky and distance may be toned with Indian Red or Brown Madder and Blue alternately, or as occasion may require.

In nearer trees warm browns should prevail; but very bright green tints should be introduced sparingly, because warm browns advance, while blue and green tints recede from the eye.

## ALTERATIONS AND CORRECTIONS.

In the course of the work it will be frequently necessary to make alterations and corrections. With care this may be done safely, but at the same time all unnecessary alterations should be avoided, lest in conducting the operation the surface of the paper should be destroyed.

If slight alterations only are required, it will be sufficient to wet the part, and wipe it out with a piece of soft rag or bread; and if any roughness is perceptible it may be smoothed with the ivory ring or key-handle, first putting a piece of silver paper over the drawing. If extensive alterations are to be made, the sponge must be used; and in this case it may

be found most convenient to cut a hole of the proper size and shape in a piece of thick drawing-paper, which is to be laid over the part of the drawing that is intended to be altered. A clean and small damp sponge is then to be placed upon the hole in the paper, which will prevent the moisture from spreading too far. The water in the sponge will soften the gum in the paint, which may then be carefully removed with the sponge, without abrading the surface. Care must be taken that the damp sponge is not suffered to lie too long, and that too large a portion is not damped. After the removal of the colour, the paper should be suffered to dry, and when dry it may be repainted, first rubbing it with the ivory ring, if necessary. In case of any part having to be repainted, the original order of tints must be strictly followed, in order to preserve a clean effect; for example, if the alterations be on the flesh, the first tint must be Venetian Red, and on that the shadow colour, blue, or the colour of the cheeks, or any other tint which may have happened to be used.

Some persons wash out the part to be altered with the sponge, but in doing this there is always danger of destroying the surface of the paper, so that there will be some difficulty in again painting on it, especially in the case of flesh, although the ivory ring may have been used. In such cases, there is another remedy, which may sometimes be found effectual.

This consists in rubbing the abraded surface with a piece of fine sand-paper, which removes the roughness, and produces a pleasant surface to work upon. The proper sand-paper is that which is numbered 0. It may perhaps be necessary to rub two pieces of sand-paper together before touching the painting with them.

It is sometimes convenient where a small alteration is to be made, instead of washing out the colours to be altered, to lay on white, and on this, when dry, to make the necessary alterations.

## CONCLUSION.

In conclusion, the writer would impress upon the learner the importance of obtaining a thorough knowledge of the technical part of portrait painting, and of the way in which the different tints are composed. This skill can only be acquired by practice, that is to say, by continual repetition; and the advancement will be more certain, if the early stages of the process are mastered before proceeding to the finish. Every one conversant with Art is aware how much is to be learned of methods of painting from the unfinished pictures by the great masters which have been carefully preserved to our own time. The student is recommended to prepare such unfinished pictures for himself, as a means of reference to the early stages

of colouring, to which, as the tints are formed chiefly by working the colours separately, and not by the admixture of them on the palette, but little clue can be afforded by the finished picture.

A good example of a head should be selected for copying, and a copy begun, which should be conducted as far as the second hatching with Venetian Red. It should be left in that state, and another commenced, which should terminate with the first shadows that give roundness to the head. A third and fourth copy should be begun, and should be left in different stages of advancement; and lastly, a perfect copy should be completed. The value of such a series of drawings is inappreciable to the learner, who will be apt to forget the early processes, and the order in which the different tints occur, until by repetition he has acquired a knowledge of the respective situations of the tint, and a mechanical dexterity in applying them. One head copied in this careful manner will be sufficient. The student will place the copies in their different stages of process by his side when painting; and if, by chance, he should at any time forget how to produce certain effects of colour, he has only to refer to his key to obtain all the information he requires. It is true that this plan involves much labour and requires patience and perseverance; but to one really desirous of advancing in the practice of Art, no amount of labour will be considered too great to accomplish this

object; and the facility of execution to which this plan will lead will amply repay the labour of acquiring it. The writer of this little work adopted the plan here described, and from the benefit she has derived from it, she thinks her time and labour well-bestowed, and therefore earnestly recommends it to the adoption of all who really wish to attain eminence in Art, and to acquire that mechanical dexterity which will enable them to express their thoughts by painting. Having thus acquired facility in the technical part of the art, the student should go to Nature; and with a good knowledge of form, a bust by his side as a guide to the light and shade, and his four or five keys to the colouring, he will scarcely fail of acquiring a considerable amount of mechanical skill. If to the latter he unite habits of observation, and diligent study of good pictures, he may hope, after years of patient labour, to attain excellence in the representation of Nature.

THE END.

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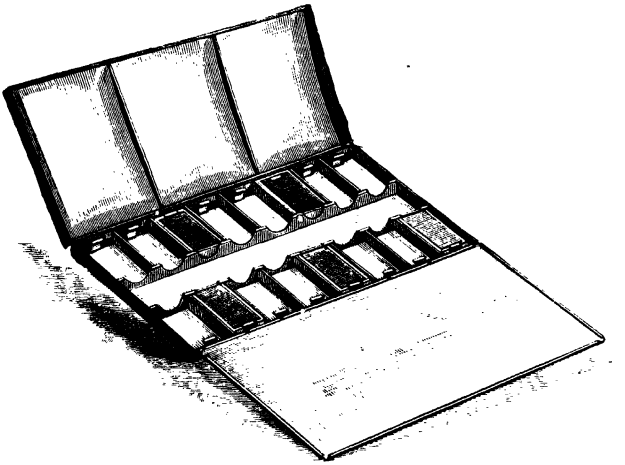

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| 12 ,, | 0 18 6 | 0 5 3 |
| 14 ,, | 1 1 9 | 0 5 6 |
| 16 ,, | 1 7 0 | 0 6 0 |
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| 10 ,, ,, ,, ... ... ... ... ... | 0 10 0 | 0 4 6 |
| 12 ,, ,, ,, ... ... ... ... ... | 0 11 9 | 0 5 0 |
| 14 ,, ,, ,, ... ... ... ... ... | 0 13 0 | 0 5 3 |
| 16 ,, ,, ,, ... ... ... ... ... | 0 15 0 | 0 5 6 |
| 18 ,, ,, ,, ... ... ... ... ... | 0 17 6 | 0 6 0 |
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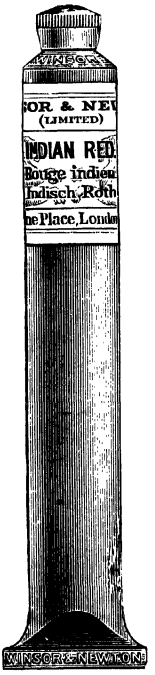
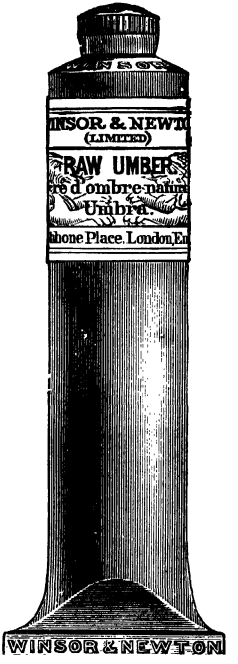
### IN COLLAPSIBLE TUBES.

*(The Illustrations are the sizes of the Tubes.)*

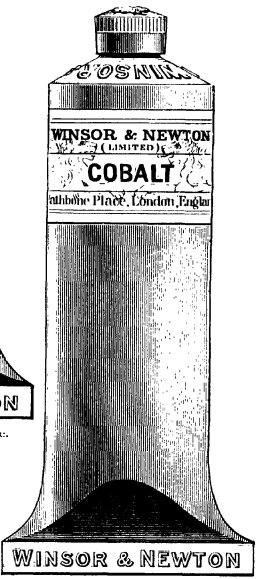

4-INCH TUBE




DOUBLE TUBE

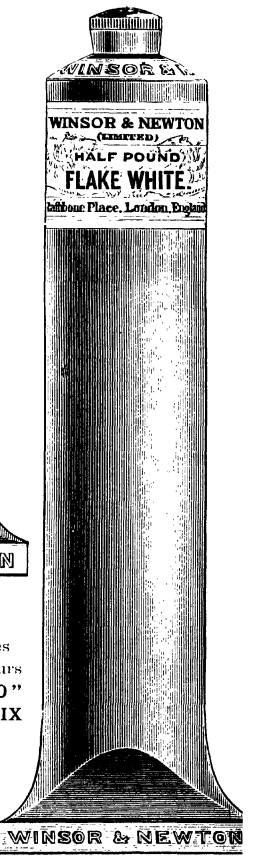
*A List of the Colours and the Prices follow on pages 18 and 19.*


"SMALL STUDIO" Tube.




'STUDIO Tube.

For the convenience of Artists using large quantities of Colour, all Messrs. Winsor and Newton's Oil Colours are supplied in **"SMALL STUDIO"** and **"STUDIO"** Tubes, containing respectively **FOUR TIMES** and **SIX TIMES** as much as an ordinary two-inch Tube.




½-LB. TUBE OF FLAKE WHITE

# Finely Prepared Oil Colours,

## IN COLLAPSIBLE TUBES.

### Four-inch tubes, 4d. each;

**"Small Studio" Tubes,** containing two four-inch Tubes, **8d. each;**
**"Studio" Tubes,** containing three four-inch Tubes, **1/- each.**

Antwerp Blue
Asphaltum
Bitumen
Black Lead
Blue Black
Bone Brown
Brown Ochre
Brown Pink
Burnt Roman Ochre
Burnt Sienna
Burnt Umber
Caledonian Brown
Cassel Earth
Charcoal Gray
Chinese Blue
Chrome Green, No. 1
Chrome Green, No. 2
Chrome Green, No. 3
Chrome Lemon
Chrome Yellow
Chrome Deep
Chrome Orange
Cinnabar Green, Pale
Cinnabar Green, Light
Cinnabar Green, Olive
Cinnabar Green, M'dle
Cinnabar Green, Deep
Cologne Earth
Cool Roman Ochre
*Copal Megilp*
Cork Black
Cremnitz White
Davy's Gray
Emerald Green
Flake White, No. 1
Flake White, No. 2
Gold Ochre
Indian Red
Indigo
Italian Pink
Ivory Black
Jaune Brillant
Kings' Yellow
Lamp Black
Light Red
*Medium (Copal Megilp)*
*Megilp*
Monochrome Tints, Cool, Nos. 1, 2, 3
Monochrome Tints, Warm, Nos. 1, 2, 3
Naples Yellow, French
Naples Yellow
Neutral Tint
Oxford Ochre
Payne's Gray
Permanent White (Zinc)
Prussian Blue
Prussian Brown
Prussian Green
*Pyne's Megilp*
Raw Sienna
Raw Sienna, Pale
Raw Umber
Roman Ochre
Silver White
*Sugar of Lead*
Terra Rosa
Terre Verte
Terre Verte, Olive Shade
Transparent Gold Ochre
Vandyke Brown
Venetian Red
Verona Brown
Yellow Lake
Yellow Ochre
Yellow Ochre, Pale
Zinc White

### Two-inch tubes, 4d. each.

**"Small Studio" Tubes,** containing four two-inch Tubes, **1/4 each;**
**"Studio" Tubes,** containing six two-inch Tubes, **2/- each.**

Cappagh Brown
Chrome Red
Crimson Lake
Cyprus Umber
Gamboge
Indian Lake
Magenta
Mauve
Mauve No. 2
New Blue
Olive Green
Olive Lake
Permanent Blue
Permanent Yellow
Purple Lake
Sap Green
Scarlet Lake
Sky Blue
Verdigris

DOUBLE, TREBLE, AND QUADRUPLE TUBES ARE ALSO SUPPLIED AT PROPORTIONATE PRICES.

**Foundation White, Double 4-inch Tubes, 4d.; ½-lb. Tubes, 8d.; 1-lb Tubes, 1/4 each.**

**Cremnitz White, Flake White and Silver White, ½-lb. Tubes, 1/4; 1-lb. Tubes, 2/8 each.**

# FINELY PREPARED OIL COLOURS,

## IN COLLAPSIBLE TUBES (*Continued*).

### Two-inch Tubes, 6d. each;

* "Small Studio" Tubes, 2/- each; "Studio" Tubes, 2/8 each.

| | | |
|---|---|---|
| Alizarin Crimson | Chinese Orange | Rose Madder (Alizarin) |
| Alizarin Green | Chinese Vermilion | Rubens' Madder |
| Alizarin Orange | French Vermilion | Ruby Madder (Alizarin) |
| Alizarin Scarlet | Geranium Lake | Scarlet Madder(Alizarin) |
| Alizarin Yellow | Green Lake, Light | Sepia |
| Brown Madder | Green Lake, Deep | Vermilion, Pale |
| Burnt Lake | Malachite Green, No. 2. | Vermilion |
| Cerulean Blue | Rembrandt's Madder | |

### Two-inch Tubes, 1/- each;

* "Small Studio" Tubes, 3/- each; "Studio" Tubes, 4/6 each.

| | | |
|---|---|---|
| Brilliant Ultramarine | Leitch's Blue | Orange Vermilion |
| Carmine No. 2 | Lemon Yellow, Pale | Oxide of Chromium |
| Citron Yellow | Lemon Yellow | Oxide of Chromium, Transparent |
| Cobalt Blue | Madder Lake | |
| Cobalt Green | Malachite Green | Permanent Violet |
| Cobalt Green, No. 2 | Mars Brown | Primrose Yellow |
| Cobalt Violet | Mars Orange | Purple Madder |
| Cyanine Blue | Mars Red | Rose Doré |
| Emerald Oxide of Chromium | Mars Violet | Rose Madder |
| | Mars Yellow | Rose Madder(pink shade) |
| Extract of Vermilion | Mineral Gray | Scarlet Madder |
| French Ultramarine | Mineral Violet | Scarlet Vermilion |
| Indian Yellow | Mineral Violet No. 2 | Viridian |

### Two-inch Tubes, 1/6 each;

* "Small Studio" Tubes, 3/6 each; "Studio" Tubes, 5/4 each.

| | | |
|---|---|---|
| Aureolin | Cadmium Orange | Indian Purple |
| Burnt Carmine | Carmine | Madder Carmine |
| Cadmium Lemon | Cobalt Yellow | Orient Yellow |
| Cadmium Yellow, Pale | Crimson Madder | Violet Carmine |
| Cadmium Yellow M'dle | Field's Orange Vermilion | Yellow Carmine |
| Cadmium Yellow, Deep | | |

### Two-inch Tubes, 2/- each;

* "Small Studio" Tubes, 6/- each; "Studio" Tubes, 9/- each.

| | | |
|---|---|---|
| Aurora Yellow | Primrose Aureolin | Ultramarine Ash |

### Two-inch Tubes, 2/6 each;

* "Small Studio" Tubes, 7/- each; "Studio" Tubes, 10/6 each.

| | | |
|---|---|---|
| Extra Madder Carmine | Extra Ultramarine Ash | Extra Purple Madder |

### Two-inch Tubes, 10/6 each.

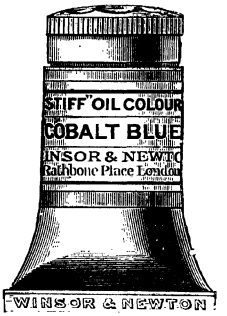
Ultramarine, Genuine, medium strength

### Two-inch Tubes, 21/- each.

Ultramarine, Genuine, full strength

* "Small Studio" Tubes contain Four two-inch Tubes; "Studio" Tubes contain Six two-inch Tubes.

# WINSOR & NEWTON'S "STIFF" OIL COLOURS.




ACTUAL SIZE OF TUBE.

These colours have recently been issued by Messrs. Winsor & Newton, Ltd., in consequence of a growing tendency among Artists to favour the use of more concentrated preparations of Oil Colour than those hitherto in vogue. They are, as the name implies, simply modifications of the ordinary Oil Colours in which the proportion of pigment to oil is greatly increased; in the nature and quality of the oil and pigments used, and in all other respects, they are identical with ordinary Oil Colours.

Colours of this description have for many years been prepared by Messrs. Winsor and Newton for special orders, but hitherto the enquiries for them have not been sufficient in number or importance to warrant their inclusion in the catalogue. The advantages of these Colours are however becoming now more widely recognised, and as the demand for them (especially among Painters of the newer Schools) is undoubtedly much on the increase, and they are being adopted by some of our leading artists, Messrs. Winsor & Newton no longer feel any hesitation in placing them on the market in the usual way.

The colours are especially suited, not only for those painters who prefer working with solid tints; but also for those who have a predilection for the use of their own Vehicles, and who find they cannot use as much as they would like of the latter, without making their tints inconveniently thin, on account of the large amount of oil already present in the usual form of Oil Colour. They are put up for convenience in wide-mouthed collapsible tubes of the same capacity as an ordinary 4-in. tube. The colours at present stocked will be limited to the following list, but other colours may be obtained to order.

## LIST OF THE COLOURS.

| | | | |
|---|---|---|---|
| Burnt Sienna<br>Burnt Umber<br>Flake White<br>Ivory Black<br>Light Red<br>Prussian Blue<br>Raw Sienna<br>Raw Umber<br>Yellow Ochre<br>Terre Verte | *6d.* each.<br>*Studio Tubes*<br>1/4 each. | Alizarin Crimson<br>with Madder | 1/6 each.<br>*Studio Tubes*<br>4/- each. |
| | | Cobalt Blue<br>Cobalt Green<br>French Blue<br>Lemon Yellow<br>Oxide of Chromium<br>Rose Madder<br>Viridian | 3/- each.<br>*Studio Tubes*<br>8/- each. |
| Naples Yellow<br>Verona Brown | *8d.* each.<br>*Studio Tubes*<br>1/10 each. | | *Studio Tubes* |
| | | Cadmium Yellow | 4/6 each 12/- each. |
| | | Aurora Yellow | 6/- ,, 16/- ,, |

*Studio" Tubes of Stiff Oil Colours are of the capacity of 3 ordinary Tubes*

# WINSOR & NEWTON'S

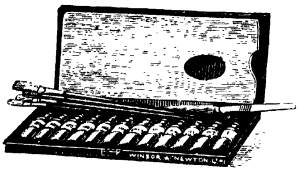
# Japanned Tin Boxes,

FITTED WITH

## COLOURS AND MATERIALS FOR OIL PAINTING.

WINSOR & NEWTON'S Oil Colour Boxes are of the best Material and Workmanship; the range is extensive, and will be found to meet every requirement.

Further improvements have been made in many of the Boxes. In the TOURIST'S, COMPACT, STUDENT'S, and COMPANION, the palettes slide into a groove in the body of the box, completely covering the contents and keeping them in their proper positions.



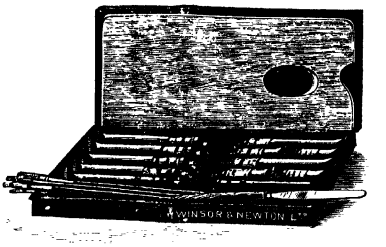

## PUPIL'S BOX.

PUPIL'S Box Size 7¾in. by 3¾in. 1 in. deep, containing 12 Colours in 2-inch Tubes, 4 Hog-hair Brushes, Mahogany Palette and Palette Knife.

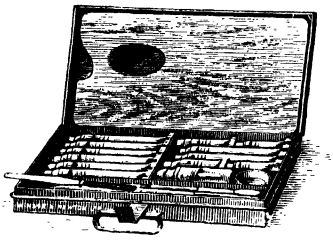
**Price, fitted, 6/-;** Empty, but with Mahogany Palette, 2/3.

## POCKET BOX.

POCKET Box; Size, 9½ in. by 4¾ in., 1 in. deep, containing 12 Colours, 6 Hog-hair Brushes Mahogany Palette and Palette Knife.




**Price, fitted, 10/-;** Empty, but with Mahogany Palette, 3/6.



## TOURIST'S BOX.

TOURIST'S BOX: Size, 9¾ in. by 6, 1¼ inch deep containing twelve Colours, Brushes, Palette Knife, Oil, Dipper, and Mahogany Palette.

**Price, fitted, 12/6;**

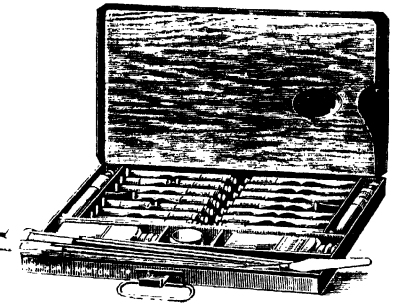
Empty, but with dipper, Bottle of Oil, and Mahogany Palette, 6/6.

## COMPACT BOX.

COMPACT BOX: Size, 10¾ ins. by 7¼, 1⅜ in. deep, containing 18 Colours, Sable and Hog hair Brushes, Palette Knife, Dipper, Linseed Oil, Turpentine, and Mahogany Palette.

**Price, fitted, 18/-;**

Empty, but with Dipper, 5/6.



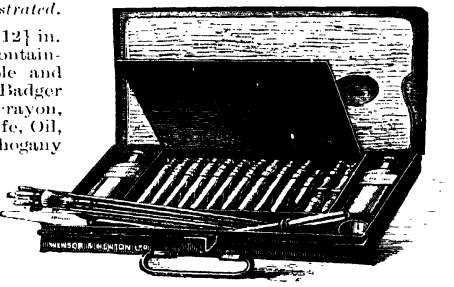
## STUDENT'S BOX.

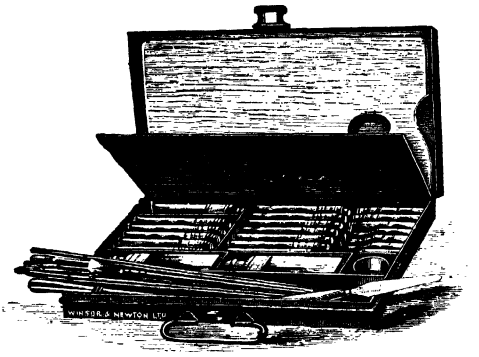
*With inside Lid as Illustrated.*

STUDENT'S BOX: Size, 12¼ in. by 6½, 1½ in. deep, containing 15 Colours, Sable and Hog-hair Brushes, Badger Softener, Chalk, Porte-crayon, Dipper, Palette Knife, Oil, Turpentine, and Mahogany Palette.

**Price, fitted, £1 1s.;**

Empty, but with Dipper, 7/-.






## Companion Box.

COMPANION Box: Size, 13 inches by 9, 1½ inches deep, containing 20 Colours, Sable and Hog-hair Brushes, Badger Softener, Chalk, Portcrayon, Palette Knife, Dipper, Oil, Turpentine, and Mahogany Palette.

**Price, fitted, £1 11s. 6d.;** Empty, 8/6.

## Double Companion Box.

Similar to above but 2⅛ inches deep and containing three prepared Millboards in addition to other fittings.

**Price, fitted, £1 17s. 6d.;** Empty, 12/-.

## Portable Box.

PORTABLE Box: Size, 13¾ inches by 9, 1¾ inches deep, containing 22 Colours, a general selection of Sable and Hog-hair Brushes, Badger Softener, Chalk, Portcrayon, Oil, Turpentine, Palette Knife, Capped Dipper, and Mahogany Palette.

**Price, fitted, £2 2s.;** Empty, 12/-.

## Double Portable Box.

Similar to above but 2¾ inches deep, and containing three prepared Millboards in addition to other fittings.

**Price, fitted, £2 12s. 6d.;** Empty, 16/-.

## Academy and Studio Boxes.

Fitted in the most complete manner.

**3 Guineas to 24 Guineas.**

# Polished Oak or Walnut Oil Colour Sketching Boxes.

**BEST MAKE.**


These Boxes are lined with Tin, and contain two Tin Oil Bottles, Double Dipper, Palette and Two Wood Panels.

| Nos. | Size. | | s. | d. |
|---|---|---|---|---|
| *1 | 9¼ inches by 6¼ | each | 13 | 6 |
| *2 | 10¼ ,, 6¾ | ,, | 15 | 0 |
| 3 | 11 ,, 8½ | ,, | 16 | 6 |
| 4 | 13 inches by 10¼ | each | 21 | 0 |
| 5 | 15 ,, 11¼ | ,, | 24 | 0 |
| 6 | 17 ,, 13¼ | ,, | 27 | 0 |

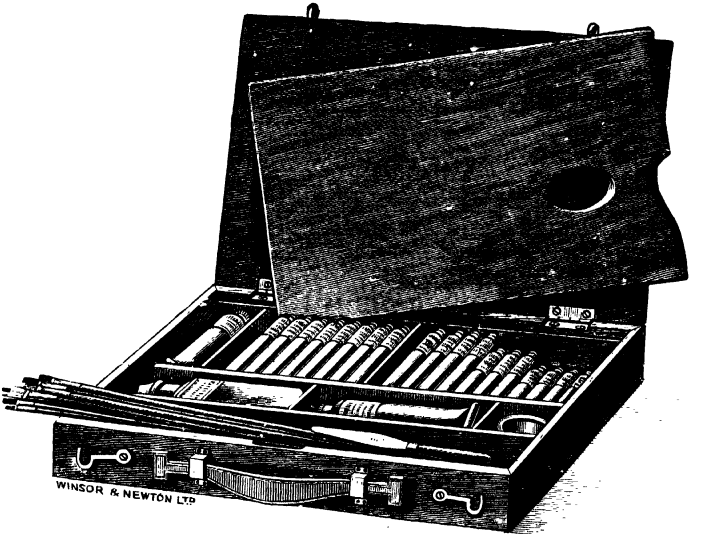
*Nos. 1 and 2 are Thumb-hole Boxes.

The above Boxes, containing in addition 10 to 26 Colours, Brushes, Oil, Turpentine, Palette Knife, &c., as illustrated.

| Nos. | | | | £ | s. | d. |
|---|---|---|---|---|---|---|
| 1 | ... | ... | each | 0 | 18 | 6 |
| 2 | ... | ... | ,, | 1 | 1 | 0 |
| 3 | ... | ... | ,, | 1 | 4 | 0 |
| 4 | ... | ... | each | 1 | 15 | 0 |
| 5 | ... | ... | ,, | 2 | 5 | 0 |
| 6 | ... | ... | ,, | 2 | 14 | 0 |

# THE "LANDSCAPE" WALNUT WOOD BOX,

## For Oil Colour Painting.




SIZE 13 INCHES BY 9; 2 INCHES DEEP.

A CONVENIENT AND INEXPENSIVE OIL COLOUR BOX FOR OUT-DOOR WORK.

The Fitted Box—illustrated above—contains 20 COLOURS IN TUBES, LINSEED OIL, TURPENTINE, IMPROVED DIPPER, SABLE and HOG HAIR BRUSHES, PALETTE KNIFE, and a WALNUT PALETTE.

**PRICE ONE GUINEA.**

THE BOX WITH WALNUT PALETTE ONLY, **8/6.**

# Varnishes and Oils.

| | Small Glass Bottles each. | Glass Bottles Round or Flat,* each. | ¼ Pints in Stone Bottles. each. | ½ Pints in Stone Bottles. each. | Pints in Stone Bottles. each. |
|---|---|---|---|---|---|
| Picture Mastic Varnish, for Varnishing ... | *s. d.* 0 9 | *s. d.* 1 6 | *s. d.* 3 0 | *s. d.* 5 6 | *s. d.* 10 0 |
| Mastic Varnish for Megilp | 1 0 | 2 0 | 3 9 | 7 0 | 13 6 |
| Amber Varnish ... ... | 0 9 | 1 6 | 3 0 | 5 6 | 10 0 |
| Amber Varnish, Light ... | 1 0 | 2 0 | 3 9 | 7 0 | 13 6 |
| Oil of Spike Lavender ... | 0 9 | 1 6 | 3 0 | 5 6 | 10 0 |
| Picture Copal Varnish ... | 0 6 | 1 0 | 1 9 | 3 0 | 6 0 |
| Oil Copal Varnish ... | 0 6 | 1 0 | 1 9 | 3 0 | 6 0 |
| White Spirit Varnish ... | 0 6 | 1 0 | 1 9 | 3 0 | 6 0 |
| Brown Spirit Varnish ... | 0 6 | 1 0 | 1 9 | 3 0 | 6 0 |
| White Lac Varnish ... | 0 6 | 1 0 | 1 9 | 3 0 | 6 0 |
| Oil Vehicles (see page 27) | 0 6 | 1 0 | 1 9 | 3 0 | 6 0 |
| Crystal or Map Varnish | 0 5 | 0 9 | 1 3 | 2 3 | 4 6 |
| Japan Gold Size ... ... | 0 4 | 0 8 | 1 0 | 2 0 | 3 9 |
| Fat Oil ... ... ... | 0 5 | 0 9 | 1 3 | 2 3 | 4 6 |
| Walnut Oil (Nut Oil) ... | 0 3 | 0 6 | 1 0 | 1 6 | 3 0 |
| Poppy Oil ... ... ... | 0 3 | 0 6 | 1 0 | 1 6 | 3 0 |
| Manganesed Poppy Oil ... | 0 3 | 0 6 | 1 0 | 1 6 | 3 0 |
| Pale Drying Oil ... ... | 0 3 | 0 6 | 0 10 | 1 3 | 2 3 |
| Strong Drying Oil ... | 0 3 | 0 6 | 0 10 | 1 3 | 2 3 |
| Purified Linseed Oil ... | 0 3 | 0 6 | 0 9 | 1 2 | 2 0 |
| Manganesed Linseed Oil | 0 3 | 0 6 | 0 9 | 1 2 | 2 0 |
| Spirits of Turpentine ... | 0 3 | 0 5 | 0 6 | 0 11 | 1 6 |

The Flat Bottles fit the majority of the Japanned Tin Oil Colour Boxes.

## MEDIUMS FOR OIL PAINTING.

| | Per Bottle. |
|---|---|
| | *s. d.* |
| Amber Medium, for oil painting on glass ... ... .. | 1 6 |
| Adolfi Medium, for painting on silk or satin ... ... .. | 1 0 |
| Liquid Size, for preparing terra-cotta plaques for painting, &c. .. | 0 6 |
| Siccatif Courtray ... ... ... ... ... .. | 0 9 |
| Siccatif de Harlem (Duroziez's) ... ... ... . | 1 3 |
| ,, ,, large size ... ... . | 2 6 |
| Soehnée Varnish, No. 3 ... ... ... ... .. | 1 0 |
| ,, ,, large size ... ... ... .. | 2 0 |

# WINSOR & NEWTON'S
# OIL VEHICLES.

MESSRS. WINSOR & NEWTON'S newly introduced "Oil Vehicles" are intended mainly to save the time of the Painter. There is no secret about their composition, nor is the principle of their construction a new one, practised as it was centuries ago in the sunny clime of Italy. The difficulties, however, of carrying out the Italian process, on a commercial scale, in the latitude of England, have hitherto prevented Artists' Colourmen from attempting the manufacture.

Briefly, the Vehicles are made as follows:—The Oil (Linseed, Poppy, or Walnut, as the case may be) is first purified by a prolonged exposure to moisture and sunlight until (without the use of chemicals) it becomes free from mucilage, almost destitute of colour, and of crystal transparency. In this condition, the oil is separated from water and impurities, and allowed to thicken gradually by free exposure to air. When it is of the consistency of honey, the process is stopped, and the product, now much too viscous to paint with comfortably, is dissolved in Oil of Spike, Turpentine, or Petroleum, until its degree of fluidity is condition it is used for painting.

The drying of the oil, which usually takes place on the picture itself, about the same as that of the originnal oil before treatment. In this is thus in a great measure accomplished before the artist begins to paint, and the progress of his work is correspondingly accelerated. As the Oil Vehicles dry in a natural manner without the use of dryers and contain no resinous substances, they may be employed with absolute confidence as to their future behaviour. The artist, too, with these vehicles, knows exactly what he is using; and this, nowadays, when secret nostra are resolutely boycotted by the better class of painters, is a great point in their favour.

The Series consists of Six Vehicles as follows:—

| | | | | |
|---|---|---|---|---|
| "OIL VEHICLE | No. 1" | is prepared from | Linseed Oil | and Oil of Spike |
| ,, ,, | No. 1A | ,, ,, | ,, | Turpentine |
| ,, ,, | No. 1B | ,, ,, | ,, | Petroleum |
| "OIL VEHICLE | No. 2" | is prepared from | Poppy Oil | and Oil of Spike |
| ,, ,, | No. 2A | ,, ,, | ,, | Turpentine |
| ,, ,, | No. 2B | ,, ,, | ,, | Petroleum |

Vehicles made from Walnut Oil are made only for Special Orders.

*N.B.—The Vehicle prepared with Oil of Spike evaporates more slowly than the others, and will probably be found, for general purposes, the most convenient. That prepared with petroleum evaporates the most rapidly, the Turpentine preparation occupying an intermediate position.*

## PRICES.

| | | d. | | | s. | d. |
|---|---|---|---|---|---|---|
| Small Bottles ... | each | 0 | ¼-Pint Bottles or Tins, | each | 1 | 9 |
| Round or Flat Bottles | ,, | 1 | ½-Pint ,, | ,, ,, | 3 | 0 |
| | | | Pint ,, | ,, ,, | 6 | 0 |

# Brushes for Painting in Water Colours.

## BRUSHES IN QUILLS.

| | Colour of Silk Tie | Brown Sable Hair. | Red Sable Hair. | Best Siberian Hair. | Best Camel Hair. |
|---|---|---|---|---|---|
| | | each. | each. | per doz. | per doz. |
| | | s. d. | s. d. | s. d. | s. d. |
| Crow... ... ... | *Blue* | 0 5 | 0 3 | 1 6 | 0 6 |
| Duck ... ... | *Magenta* | 0 9 | 0 6 | 2 3 | 0 9 |
| Small Goose ... | *Green* | 1 2 | 0 10 | 3 0 | |
| Goose ... ... | *Pink* | 1 6 | 1 0 | 3 9 | 1 6 |
| Extra Goose ... | *Amber* | 2 0 | 1 3 | 4 6 | — |
| IN LONG QUILLS | | | | each. | each. |
| Extra Small Swan... | *Blue* | 4 0 | 2 8 | 1 0 | 0 8 |
| Small Swan ... | *Magenta* | 6 0 | 3 6 | 1 3 | 1 0 |
| Middle Swan ... | *Green* | 9 0 | 4 6 | 1 9 | 1 4 |
| Large Swan . ... | *Pink* | 12 0 | 6 0 | 2 6 | 1 8 |

## SABLE BRUSHES IN ALBATA FERRULES.

| | Brown Sable Hair. | Red Sable Hair. |
|---|---|---|
| | each. | each. |
| | s. d. | s. d. |
| Nos. 0 & 1 Flat or Round ... ... | 1 0 | 0 8 |
| ,, 2 ,, ... ... | 1 1 | 0 10 |
| ,, 3 ,, ... ... | 1 8 | 1 0 |
| ,, 4 ,, ... ... | 2 0 | 1 3 |
| ,, 5 ,, ... ... | 2 6 | 1 6 |
| ,, 6 ,, ... ... | 3 0 | 2 0 |
| ,, 7 ,, ... ... | 4 0 | 2 3 |

| EXTRA LARGE SERIES. | | Flat. | Round. | Flat. | Round. |
|---|---|---|---|---|---|
| | | s. d. | s. d. | s. d. | s. d. |
| No. 1 Flat or Round ... ... | each | 5 9 | 6 9 | 3 3 | 3 9 |
| ,, 2 ,, ... ... | ,, | 8 6 | 9 9 | 5 3 | 5 9 |
| ,, 3 ,, ... ... | ,, | 11 0 | 12 9 | 7 0 | 7 6 |
| ,, 4 ,, ... ... | ,, | 13 6 | 16 0 | 9 0 | 10 6 |
| ,, 5 ,, ... ... | ,, | 17 6 | 18 0 | 11 6 | 13 6 |
| ,, 6 ,, ... ... | ,, | 20 0 | 21 0 | 14 0 | 16 0 |

# Brushes for Painting in Water Colours.

## BRUSHES IN NICKEL FERRULES.

| | Brown Sable Hair | Red Sable Hair | Brown Fitch Hair | Best Siberian Hair |
|---|---|---|---|---|
| | *s. d.* | *s. d.* | *s. d.* | *s. d.* |
| Nos. 0 & 1 Flat or Round..each | 0 10 | 0 5 | 0 4 | 0 3 |
| ,, 2 ,, ,, | 1 0 | 0 6 | 0 4 | 0 4 |
| ,, 3 ,, ,, | 1 2 | 0 7 | 0 4 | 0 4 |
| ,, 4 ,, ,, | 1 4 | 0 8 | 0 5 | 0 5 |
| ,, 5 ,, ,, | 1 8 | 0 10 | 0 5 | 0 5 |
| ,, 6 ,, ,, | 2 0 | 1 0 | 0 5 | 0 6 |
| ,, 7 Flat ... ... ,, | 2 3 | 1 4 | 0 6 | 0 8 |
| ,, 8 ,, ... ... ,, | | 1 8 | 0 7 | 0 10 |
| ,, 9 ,, ... ... ,, | | 2 0 | 0 9 | 1 0 |
| ,, 7 Round... ... ,, | 3 0 | 1 8 | 0 6 | 0 8 |
| ,, 8 ,, ... ,, | — | 2 0 | 0 7 | 0 10 |
| ,, 9 ,, ... ,, | — | 2 8 | 0 9 | 1 0 |

## BEST CAMEL HAIR BRUSHES IN TIN FERRULES.

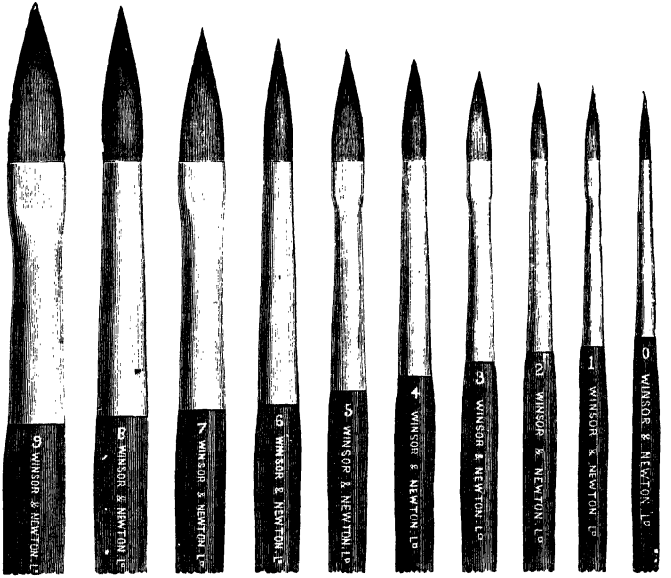
| | per doz. *s. d.* |
|---|---|
| No. 1 Flat or Round ... ... ... ... ... ... ... | 1 2 |
| ,, 2 ,, ... ... ... ... ... ... ... | 1 3 |
| ,, 3 ,, ... ... ... ... ... ... ... | 1 4 |
| ,, 4 ,, ... ... ... ... ... ... ... | 1 6 |
| ,, 5 ,, ... ... ... ... ... ... ... | 1 9 |
| ,, 6 ,, ... ... ... ... ... ... ... | 2 0 |
| ,, 7 ,, ... ... ... ... ... ... .. | 2 6 |
| ,, 8 ,, ... ... ... ... ... ... ... | 3 0 |
| ,, 9 ,, ... ... ... ... ... ... ... | 3 9 |
| ,, 10 ,, ... ... ... ... ... ... ... | 4 9 |
| ,, 11 ,, ... ... ... ... ... ... ... | 5 6 |
| ,, 12 ,, ... ... ... ... ... ... ... | 6 0 |

## WASH OR SKY BRUSHES IN NICKEL FERRULES.

| | Flat. *s. d.* | Round. *s. d.* |
|---|---|---|
| Dyed Sable Hair, large size ... ... each | 3 6 | 4 0 |
| Ditto small size ... ... ,, | 3 0 | 3 6 |
| Best Siberian Hair, large size ... ... ,, | 1 3 | 1 3 |
| Ditto small size ... ... ,, | 0 9 | 0 9 |

# Brushes for Painting in Oil Colours.

## Finest Red Sable Hair in Nickel Ferrules.




| Flat or Round. | | | Flat. | | | Round. | | |
|---|---|---|---|---|---|---|---|---|
| Nos. | | *s. d.* | Nos. | | *s. d.* | Nos. | | *s. d.* |
| 0 and 1 | ... each | 0 5 | 7 | ... each | 1 4 | 7 | ... each | 1 8 |
| 2 | ... ... ,, | 0 6 | 8 | ... ,, | 1 8 | 8 | ... ,, | 2 0 |
| 3 | ... ... ,, | 0 7 | 9 | ... ,, | 2 0 | 9 | ... ,, | 2 8 |
| 4 | ... ... ,, | 0 8 | 10 | ... ,, | 2 8 | 10 | ... ,, | 3 3 |
| 5 | ... ... ,, | 0 10 | 11 | ... ,, | 3 3 | 11 | ... ,, | 4 0 |
| 6 | ... ... ,, | 1 0 | 12 | ... ,, | 4 0 | 12 | ... ,, | 4 9 |

"NEWLYN" BRUSHES, made short and thin in the Hair, and square at the corners, are supplied flat only at the same prices as above.

# Extra Fine Hog Hair Brushes, A Series.

**Nickel Ferrules, 12-inch Yellow Polished Handles.**

MADE OF THE SOFTEST LYONS HAIR.

| Nos. | | | each. s. d. |
|---|---|---|---|
| 1 to 6, Flat or Round, all sizes | | ... | 0 8 |
| 7 | ,, ,, | ... | 0 9 |
| 8 | ,, ,, | ... | 1 0 |

| Nos. | | | each. s. d. |
|---|---|---|---|
| 9, Flat or Round | | ... | 1 1 |
| 10 | ,, ,, | ... | 1 3 |
| 11 | ,, ,, | ... | 1 6 |
| 12 | ,, ,, | ... | 1 9 |

# Herkomer Brushes.

**Extra Fine Hog Hair in Nickel Ferrules.**

Short and thin in hair. Quality and Prices as **A** Series above

# Hog Hair Brushes, B Series.

**Nickel Ferrules, 12-inch Red Polished Cedar Handles.**

| Nos. | | | each. s. d. |
|---|---|---|---|
| 1 to 6, Flat or Round, all sizes | | ... | 0 4 |
| 7 | Flat or Round | ... | 0 5 |
| 8 | ,, ,, | ... | 0 6 |
| 9 | ,, ,, | ... | 0 7 |
| 10 | ,, ,, | ... | 0 8 |
| 11 | ,, ,, | ... | 0 9 |

| Nos. | | | each. s. d. |
|---|---|---|---|
| 12, Flat or Round | | ... | 0 10 |
| 13 | ,, ,, | ... | 1 3 |
| 14 | ,, ,, | ... | 1 6 |
| 15 | ,, ,, | ... | 1 9 |
| 16 | ,, ,, | ... | 2 0 |
| 17 | ,, ,, | ... | 2 3 |
| 18 | ,, ,, | ... | 2 8 |

# "New Bright's" Hog Hair Brushes.

An improved form of the "Bright's" Brush, being a trifle shorter and thinner in the hair, and made with a squarer top. Quality and Prices as **B** Series above.

# Hog Hair Brushes, C Series.

**Tin Ferrules, 12-inch Natural Polished Cedar Handles.**

| Nos. | | | each. s. d. |
|---|---|---|---|
| 1 to 6, Flat or Round all sizes | | ... | 0 3 |
| 7 | Flat or Round | ... | 0 4 |
| 8 | ,, ,, | ... | 0 5 |

| Nos. | | | each. s. d. |
|---|---|---|---|
| 9, Flat or Round | | ... | 0 6 |
| 10 | ,, ,, | ... | 0 7 |
| 11 | ,, ,, | ... | 0 8 |
| 12 | ,, ,, | ... | 0 9 |

## HOG HAIR BRUSHES, G Series

*Tin Ferrules, 12-inch White Wood Handles.*

Short and very thin in Hair.

| Nos. | Each. s. | d. | Nos. | Each. s. | d. |
|---|---|---|---|---|---|
| 1 to 6, Flat only, all sizes | 0 | 3 | 13 Flat only ... ... | 0 | 9 |
| 7 ,, ,, | 0 | 4 | 14 ,, ,, ... ... | 1 | 0 |
| 8 ,, ,, | 0 | 5 | 15 ,, ,, ... ... | 1 | 2 |
| 9 ,, ,, | 0 | 6 | 16 ,, ,, ... ... | 1 | 4 |
| 10 ,, ,, | 0 | 6 | 17 ,, ,, ... ... | 1 | 6 |
| 11 ,, ,, | 0 | 7 | 18 ,, ,, ... ... | 1 | 9 |
| 12 ,, ,, | 0 | 8 | | | |

## STUDENTS' HOG HAIR BRUSHES.

*Nickelled Tin Ferrules, Black Polished Handles.*

Sound, reliable Brushes of the approved shape, short and thin in hair with a square top.

| Nos. | Each. s. | d. | Nos. | Each. s. | d. |
|---|---|---|---|---|---|
| 1 to 6 Flat only, all sizes | 0 | 2 | 9 & 10, Flat only ... | 0 | 5 |
| 7 & 8 ,, ,, | 0 | 4 | 11 & 12 ,, ,, ... | 0 | 7 |

## BROWN FITCH HAIR BRUSHES.

*Nickel Ferrules, 12-inch Natural Polished Cedar Handles.*

Improved shape, short and thin in the hair and with square points.

| Nos. | Each. s. | d. | Nos. | Each. s. | d. |
|---|---|---|---|---|---|
| 1, 2, and 3, Flat only ... | 0 | 3 | 9 Flat only ... ... | 0 | 7 |
| 4, 5, and 6 ,, ... | 0 | 4 | 10 ,, ... ... | 0 | 8 |
| 7 ,, ... | 0 | 5 | 11 ,, ... ... | 0 | 9 |
| 8 ,, ... | 0 | 6 | 12 ,, ... ... | 0 | 10 |

## FINEST ROUND BADGER HAIR SOFTENERS.

*With Red Polished Cedar Handles.*

| | Each. s. | d. | | Each. s. | d. | | Each. s. | d. |
|---|---|---|---|---|---|---|---|---|
| 1 ... ... | 0 | 9 | 4 ... ... | 1 | 6 | 7 ... ... | 3 | 0 |
| 2 ... ... | 0 | 11 | 5 ... ... | 2 | 0 | 8 ... ... | 4 | 0 |
| 3 ... ... | 1 | 1 | 6 ... ... | 2 | 3 | 9 ... ... | 4 | 6 |

## FLAT HOG HAIR VARNISHING BRUSHES.

*Nickel Ferrules, Natural Polished Cedar Handles.*

Made of the softest Hog Hair.

| | Each. s. | d. | | Each. s. | d. | | Each. s. | d. |
|---|---|---|---|---|---|---|---|---|
| 1 inch wide ... | 1 | 2 | $2\frac{1}{2}$ inches wide | 2 | 9 | $3\frac{1}{2}$ inches wide | 4 | 0 |
| $1\frac{1}{2}$ ,, ... | 1 | 9 | 3 ,, ... | 3 | 6 | 4 ,, | 4 | 6 |
| 2 ,, ... | 2 | 3 | | | | | | |

# WINSOR & NEWTON'S

# ARTISTS' PREPARED CANVAS.

For Painting in Oil Colours.

| | BEST QUALITY Single primed, Full primed & Roman Canvas. | BEST QUALITY Ticken Canvas. | SECOND QUALITY Single Primed & Full primed. | THIRD QUALITY. |
|---|---|---|---|---|
| | s. d. | s. d. | s. d. | s. d. |
| 27 inches wide per yard. | 3 0 | 3 8 | 2 3 | 1 8 |
| 30 ,, ,, ... ,, | 3 3 | 4 0 | 2 6 | - |
| 36 ,, ,, ... ,, | 3 9 | 4 9 | 3 0 | 2 3 |
| 38 ,, ,, ... ,, | 4 0 | 5 3 | 3 2 | - |
| 42 ,, ,, ... ,, | 4 6 | 5 9 | 3 6 | |
| 45 ,, ,, ... ,, | 5 3 | 6 6 | 3 9 | |
| 54 ,, ,, ... ,, | 7 0 | 8 0 | 4 6 | 3 6 |
| 62 ,, ,, ... ,, | 8 6 | 10 0 | 5 0 | 4 0 |
| 71 ,, ,, ... ,, | 10 6 | 12 0 | 6 0 | 5 0 |
| 86 ,, ,, ... ,, | 12 6 | 15 0 | 7 0 | - |

# "WINTON" ARTISTS' PREPARED CANVAS.

A new variety introduced to meet the requirements of those numerous Artists who prefer a more pronounced grain in their Canvas than is afforded by the ordinary Single-primed. The "Winton" Canvas is firm in substance, of even texture, and has a grain about midway between the Single-primed and Roman varieties. It is a specially woven fabric, prepared by WINSOR & NEWTON, Limited, and will be found superior to the foreign productions which have been offered of late at higher prices.

| | s. d. | | s. d. |
|---|---|---|---|
| 27 inches wide per yard | 2 6 | 45 inches wide per yard | 4 4 |
| 30 | | 54 ,, ,, ... ,, | 5 0 |
| 36 ,, ,, ... ,, | 3 6 | 74 ,, ,, ... ,, | 7 0 |
| 42 ,, ,, ... ,, | 4 0 | | |

*A Sample will be sent post free on application.*

WINTON CANVAS ON STRETCHERS is supplied in all the regular sizes at proportionate prices.

## WINSOR ARTISTS' CANVAS.

**Strained on Wedged Stretchers, with Bevelled Inside Edges.**

| Size in inches. | Best quality each. s. d. | 2nd quality each. s. d. | 3rd quality each. s. d. |
|---|---|---|---|
| 7 by 5 | 0 8 | 0 6 | 0 4 |
| 8 ,, 6 | 0 8 | 0 6 | 0 5 |
| 9 ,, 6 | 0 9 | 0 6 | 0 5 |
| 9 ,, 7 | 0 11 | 0 7 | 0 6 |
| 10 ,, 6 | 0 11 | 0 8 | 0 6 |
| 10 ,, 7 | 0 11 | 0 8 | 0 6 |
| 10 ,, 8 | 1 0 | 0 9 | 0 6 |
| 11 ,, 9 | 1 2 | 0 10 | 0 7 |
| 12 ,, 6 | 11 | 0 9 | 0 6 |
| 12 ,, 8 | 1 1 | 0 9 | 0 7 |
| 12 ,, 9 | 1 2 | 0 10 | 0 7 |
| 12 ,, 10 | 1 2 | 0 10 | 0 7 |
| 13 ,, 8 | 1 2 | 0 11 | 0 8 |
| 13 ,, 9 | 1 2 | 0 11 | 0 8 |
| 13 ,, 10 | 1 3 | 0 11 | 0 8 |
| 13 ,, 11 | 1 4 | 0 11 | 0 8 |
| 14 ,, 6 | 1 2 | 0 9 | 0 7 |
| 14 ,, 7 | 1 2 | 0 9 | 0 7 |
| 14 ,, 8 | 1 2 | 0 10 | 0 8 |
| 14 ,, 9 | 1 4 | 0 11 | 0 8 |
| 14 ,, 10 | 1 4 | 0 11 | 0 8 |
| 14 ,, 12 | 1 5 | 1 0 | 0 9 |
| 15 ,, 11 | 1 6 | 1 1 | 0 10 |
| 15 ,, 12 | 1 6 | 1 1 | 0 10 |
| 16 ,, 8 | 1 4 | 1 0 | 0 9 |
| 16 ,, 10 | 1 5 | 1 1 | 0 10 |
| 16 ,, 11 | 1 6 | 1 1 | 0 10 |
| 16 ,, 12 | 1 7 | 1 2 | 0 10 |
| 16 ,, 14 | 1 9 | 1 3 | 0 11 |
| 17 ,, 13 | 1 9 | 1 4 | 1 0 |
| 17 ,, 14 | 1 10 | 1 4 | 1 0 |
| 18¾ ,, 8¾ | 1 6 | 1 1 | 0 11 |
| 18 ,, 10 | 1 7 | 1 1 | 0 11 |
| 18 ,, 12 | 1 9 | 1 2 | 1 0 |
| 18 ,, 14 | 2 0 | 1 4 | 1 1 |
| 18 ,, 15 | 2 0 | 1 6 | 1 2 |
| 18 ,, 16 | 2 0 | 1 6 | 1 2 |
| 19 ,, 9 | 1 8 | 1 1 | 0 11 |
| 19 ,, 13 | 1 11 | 1 4 | 1 1 |
| 19 ,, 15 | 2 1 | 1 6 | 1 3 |
| 20 ,, 10 | 1 10 | 1 4 | 1 1 |
| 20 ,, 12 | 1 11 | 1 4 | 1 2 |
| 20 ,, 14 | 2 1 | 1 6 | 1 2 |
| 20 ,, 15 | 2 2 | 1 7 | 1 3 |
| 20 ,, 16 | 2 2 | 1 7 | 1 3 |
| 21 ,, 14 | 2 2 | 1 6 | 1 3 |
| 21 ,, 17 | 2 4 | 1 9 | 1 4 |

| Size in Inches. | Best quality each. s. d. | 2nd quality each. s. d. | 3rd quality each. s. d. |
|---|---|---|---|
| 22 by 10 | 2 1 | 1 6 | 1 2 |
| 22 ,, 14 | 2 4 | 1 7 | 1 4 |
| 22 ,, 15 | 2 4 | 1 8 | 1 3 |
| 22 ,, 16 | 2 4 | 1 9 | 1 4 |
| 22 ,, 17 | 2 6 | 1 10 | 1 4 |
| 22 ,, 18 | 2 8 | 1 10 | 1 4 |
| 24 ,, 10 | 2 1 | 1 7 | 1 3 |
| 24 ,, 12 | 2 2 | 1 7 | 1 3 |
| 24 ,, 14 | 2 4 | 1 9 | 1 4 |
| 24 ,, 16 | 2 8 | 2 0 | 1 5 |
| 24 ,, 18 | 2 10 | 2 0 | 1 6 |
| 24 ,, 20 | 3 2 | 2 2 | 1 7 |
| 26 ,, 16 | 3 0 | 2 2 | 1 7 |
| 26 ,, 18 | 3 2 | 2 2 | 1 9 |
| 26 ,, 20 | 3 6 | 2 4 | 1 10 |
| 26 ,, 22 | 3 8 | 2 6 | 2 0 |
| 27 ,, 20 | 3 6 | 2 9 | 1 10 |
| 27 ,, 22 | 3 8 | 2 9 | 2 0 |
| 30 ,, 13 | 3 2 | 2 2 | 1 7 |
| 30 ,, 18 | 3 8 | 2 8 | 1 10 |
| 30 ,, 20 | 3 10 | 2 11 | 2 0 |
| 30 ,, 22 | 4 3 | 3 0 | 2 3 |
| 30 ,, 24 | 4 4 | 3 1 | 2 6 |
| 30 ,, 25 | 4 6 | 3 2 | 2 6 |
| 32 ,, 18 | 4 0 | 2 11 | 2 3 |
| 36 ,, 20 | 4 6 | 3 6 | 2 6 |
| 36 ,, 24 | 5 3 | 3 8 | 2 8 |
| 36 ,, 28 | 5 9 | 4 0 | 3 0 |
| 37 ,, 13 | 4 3 | 3 2 | 2 4 |
| 38 ,, 14 | 4 9 | 3 4 | 2 6 |
| 40 ,, 24 | 6 4 | 5 3 | — |
| 40 ,, 28 | 7 4 | 5 9 | — |
| 40 ,, 30 | 8 4 | 6 3 | — |
| 42 ,, 24 | 6 9 | 5 6 | |
| 42 ,, 28 | 7 10 | 6 3 | |
| 44 ,, 34 | 10 0 | 8 0 | |
| 48 ,, 36 | 11 6 | 9 6 | |
| 50 ,, 30 | 11 0 | 8 8 | — |
| 50 ,, 40 | 13 0 | 10 6 | — |
| 54 ,, 36 | 13 0 | 10 6 | — |
| 56 ,, 44 | 17 6 | 13 4 | — |
| 60 ,, 40 | 16 6 | 13 3 | — |
| 72 ,, 54 | 33 0 | 25 0 | — |
| 88 ,, 52 | 38 0 | 28 6 | |
| 94 ,, 58 | 44 0 | 35 0 | |
| 106 ,, 70 | 56 0 | 47 0 | — |

# Academy Boards.

| | BEST QUALITY. Inches. | Thin. each. s. d. | Thick. each. s. d. |
|---|---|---|---|
| Academy Boards | ... ... ... 24½ by 18½ ... ... ... | 1 0 | 1 3 |
| Half ,, | ... ... ... 18½ ,, 12½ ... ... ... | 0 6 | 0 8 |
| Quarto ,, | ... ... ... 12¼ ,, 9¼ ... ... ... | 0 3 | 0 4 |
| Octavo ,, | ... ... ... 9¼ ,, 6 ... ... ... | 0 1½ | 0 2 |

# "Rough Surfaced" Academy Boards.

*These Boards are carefully abraded by hand, and offer an agreeable contrast to the smooth surface of the older kind.*

| | Ordinary Sizes. Inches. | each. s. d. | Inches. | Panel Sizes.* each. s. d. | Inches | each. s. d. |
|---|---|---|---|---|---|---|
| Whole Size, | 24½ by 18½ | 1 0 | 15 by 8 | 0 4 | 26 by 10 | 0 9 |
| Half ,, | 18½ ,, 12½ | 0 6 | 18 ,, 8 | 0 6 | 30 ,, 13 | 1 0 |
| Quarto ,, | 12¼ ,, 9¼ | 0 3 | 18½ ,, 13 | 0 8 | 37 ,, 13 | 1 6 |
| Octavo ,, | 9¼ ,, 6 | 0 1½ | 24 ,, 12 | 0 9 | | |

# Students' Academy Boards.

| | Ordinary Sizes. Inches. | each. s. d. | Inches. | Panel Sizes.* each. s. d. | Inches. | each. s. d. |
|---|---|---|---|---|---|---|
| Whole Size, | 24½ ,, 18½ | 0 8 | 15 by 8 | 0 3 | 26 by 10 | 0 8 |
| Half ,, | 18½ ,, 12½ | 0 4 | 18 ,, 8 | 0 4 | 30 ,, 13 | 0 10 |
| Quarto ,, | 12¼ ,, 9¼ | 0 2 | 18½ ,, 13 | 0 6 | 37 ,, 13 | 1 3 |
| Octavo ,, | 9¼ ,, 6 | 0 1 | 24 ,, 12 | 0 8 | | |

* These sizes correspond with those of Madame Vouga's and other panel studies.

# Millboards and Mahogany Panels.

## Prepared for Painting in Oil Colours.

Millboards, 44 sizes, 6-ins. by 5-ins. **6d.**, to 30-ins. by 25-ins. **9/-**.

Mahogany Panels, 42 sizes, 8-ins. by 6-ins. **1/3**, to 36-ins. by 28-ins. **37/-**

# White Wood Panels.

## Unprepared.

Eighteen sizes, 8-ins. by 6-ins. **3d.**, to 20-ins. by 12-ins., **1/-**.

# Oil Sketching Paper.

In four different surfaces, prepared to imitate the textures of Plain, Single Primed, Roman, and Ticken Canvases.

| | s. | d. |
|---|---|---|
| Prepared on Imperial Paper, 30 inches by 22 inches ... per sheet | 0 | 9 |
| Ditto, ditto, Extra Thick 30 ,, by 22 ,, ... ,, | 1 | 0 |

# Oil Sketching Tablets.

(Millboards covered with Prepared Oil Sketching Paper.)

| Size in inches. | Each. s. | d. | Size in inches. | Each. s. | d. | Size in inches. | Each. s. | d. |
|---|---|---|---|---|---|---|---|---|
| 5½ by 4½ | 0 | 2 | 11¼ by 9 | 0 | 5 | 18 by 11¼ | 0 | 8 |
| 7 ,, 5 | 0 | 2 | 12 ,, 8 | 0 | 5 | 20 ,, 14 | 0 | 9 |
| 8 ,, 6 | 0 | 3 | 12 ,, 9 | 0 | 5 | 24 ,, 12 | 1 | 0 |
| 9 ,, 5¼ | 0 | 3 | 14 ,, 6¾ | 0 | 5 | 28 ,, 12 | 1 | 0 |
| 10 ,, 7 | 0 | 3 | 14 ,, 10 | 0 | 6 | 30 ,, 13 | 1 | 6 |
| 10 ,, 8 | 0 | 4 | 16 ,, 12 | 0 | 8 | 37 ,, 13 | 2 | 0 |
| | | | | | | 42 ,, 13¼ | 2 | 3 |

Made in three surfaces—Plain, Single primed, and Roman. Single primed surface is sent unless otherwise ordered.

# The Winton Shaded Art Panels

## FOR PAINTING IN OIL COLOURS.

Prepared in Six Tints, viz., GREEN, ROSE, AZURE, BROWN, GREY and OLIVE.

| Size in inches. | Each s. | d. | Size in inches. | Each s. | d. |
|---|---|---|---|---|---|
| by 5½ ... ... ... ... | 0 | 6 | 18 by 10 ... ... ... ... | 1 | 6 |
| ,, 7 ... ... ... ... | 0 | 8 | 20 ,, 10 ... ... ... ... | 1 | 6 |
| 12 ,, 8 ... ... ... ... | 1 | 0 | 20 ,, 12 ... ... ... ... | 1 | 9 |
| 14 ,, 6¾ ... ... ... ... | 1 | 0 | 20 ,, 14 ... ... ... ... | 1 | 9 |
| 14 ,, 10 ... ... ... ... | 1 | 3 | 24 ,, 12 ... ... ... ... | 2 | 0 |
| 16 ,, 8 ... ... ... ... | 1 | 3 | 28 ,, 12 ... ... ... ... | 2 | 6 |
| 30 by 13 inches, green, brown, grey, and olive only ... ... | | | | 3 | 6 |
| 37 ,, 13 ,, ,, ,, ,, ,, ... ... ... | | | | 4 | 0 |
| 42 ,, 13½ ,, ,, ,, ,, ,, ... ... ... | | | | 5 | 0 |

Other sizes, up to 20 in. wide, are made to order at proportionate prices.

The "Winton" Art Panels are manufactured and prepared solely by Winsor and Newton, Ltd. The surface is carefully shaded by hand and affords an especially suitable ground for painting Flowers, Fruit, &c., or copying Madame Vouga's Studies.

# Canvas Boards.

Millboards covered with Artists' Prepared Canvas.

Best Quality, 20 sizes, 7 in. by 5 in., **7**d., to 20 in. by 14 in., **3**/- each.
21 by 10½ in., **3/2**; 12 by 10½ in., **6/6** each.

Second Quality, 20 sizes, 7 in. by 5 in., **6**d., to 20 in. by 14 in. **2**/- each.

# Japanned Tin Plaques (Circular),

With rings at back.

Prepared for Painting in Oil Colours.

PLAIN.—Six Tints: Cream, Terra Cotta, Pale Blue, Pale Pink, Pale Green, and Black.

SHADED.—Three Tints: Brown, Green, and Grey.

| Diameter. | Plain. Each. s. d. | Shaded. Each. s. d. |
|---|---|---|
| 6 inches | 0 8 | — |
| 7 ,, | 0 10 | — |
| 8 ,, | 1 0 | 1 2 |
| 9 ,, | 1 2 | 1 4 |
| 10 ,, | 1 3 | 1 6 |
| 11 ,, | 1 5 | 1 9 |
| 12 ,, | 1 6 | 2 0 |
| 13 ,, | 2 0 | 2 6 |
| 14 ,, | 2 6 | 2 9 |
| 16 ,, | 3 6 | 4 0 |

# Solid Blocks for Painting in Oil Colours.

| Made of Thick Paper, 24 Surfaces. | Inches. | | Blocks only. s. d. | Half Bound and with Protective Frames. s. d. |
|---|---|---|---|---|
| 16mo Imperial | 7 by 5 | each | 1 9 | 3 9 |
| 8vo ,, | 10 ,, 7 | ,, | 3 0 | 6 3 |
| 4to Royal | 11½ ,, 9 | ,, | 5 0 | 9 0 |
| 6mo Imperial | 14 ,, 6¾ | ,, | 4 6 | 8 6 |
| 4to ,, | 14 ,, 10 | ,, | 6 0 | 10 6 |

| Made of Extra Thick Paper, 18 Surfaces. | Inches. | | Blocks only. s. d. | Half Bound and with Protective Frames. s. d. |
|---|---|---|---|---|
| 16mo Imperial | 7 by 5 | each | 1 9 | 3 9 |
| 8vo ,, | 10 ,, 7 | ,, | 3 0 | 6 3 |
| 4to Royal | 11½ ,, 9 | ,, | 5 0 | 9 0 |
| 6mo Imperial | 14 ,, 6¾ | ,, | 4 6 | 8 6 |
| 4to ,, | 14 ,, 10 | ,, | 6 0 | 10 6 |
| 3mo ,, | 18 ,, 10 | ,, | 8 6 | 16 0 |
| Half ,, | 20 ,, 14 | ,, | 12 0 | 21 0 |

These Blocks are made with Oil Sketching Paper of the four different surfaces described on Page 36. Single Primed Surface Blocks are sent unless otherwise ordered.

# DRAWING PAPERS.

MESSRS. WINSOR & NEWTON, Limited, pay particular attention to this department, and keep constantly on hand a very large and varied Stock of Seasoned First-class Drawing Papers, comprising all kinds required, including the "O.W." Hand-made Drawing Paper recently introduced and stamped "Guaranteed Pure Paper R.W.S."

## WHATMAN'S DRAWING PAPER.

| | Weight to Ream. | | Inches. | Per Sheet. s. | d. |
|---|---|---|---|---|---|
| Demy ... ... | 25 lbs. ... | Hotpressed and Not ... | 20 by 15½ | 0 | 1½ |
| Medium ... ... | 34 ,, ... | ,, ,, ... | 22 ,, 17½ | 0 | 2½ |
| Royal ... ... | 44 ,, ... | Hotpressed, Not, and Rough | 24 ,, 19½ | 0 | 3 |
| Imperial ... ... | 72 ,, ... | ,, ,, ... | 30½ ,, 22 | 0 | 5 |
| Dble. Elephant ... | 133 ,, ... | ,, ,, ... | 40 ,, 26¾ | 0 | 10 |
| Antiquarian ... | 240 ,, ... | ,, ,, ... | 52½ ,, 30½ | 4 | 0 |

## WHATMAN'S "THICK" AND "EXTRA THICK" DRAWING PAPER.

| | Weight to Ream. | | Per Sheet. s. | d. | *Artists Per Sheet. s. | d. |
|---|---|---|---|---|---|---|
| Royal ... ... | 60 lbs. ... | Hotpressed, Not, and Rough | 0 | 5 | — | |
| Imperial ... | 90 ,, ... | ,, ,, | 0 | 8 | 0 | 9 |
| ,, ... | 140 ,, ... | ,, ,, | 1 | 0 | 1 | 2 |
| ,, ... | 300 ,, ... | ,, ,, | — | | 2 | 6 |
| Dble. Elephant | 235 ,, ... | ,, ,, | 1 | 9 | 2 | 0 |

**Artists' Drawing Paper consists of Sheets carefully selected at the Mill.*

## "O.W." DRAWING PAPER.

*A Hand-made Paper, manufactured under the direction of the Royal Society of Painters in Water Colours.*

| | Weight. to Ream. | | Per Sheet. s. | d. |
|---|---|---|---|---|
| Imperial ... | 72 lbs., | Nos. 1 and 4 Surfaces ... ... | 0 | 5 |
| ,, ... | 90 ,, | ,, 4 Surface ... ... ... | 0 | 8 |
| ,, ... | 140 ,, | ,, 4 ,, ... ... ... | 1 | 0 |
| Dble. Elephant | 140 ,, | ,, 4 ,, ... ... ... | 1 | 0 |
| ,, ,, | 325 ,, | ,, 40 ,, ... ... ... | 2 | 3 |
| Antiquarian ... | 240 ,, | ,, 4 ,, ... ... ... | 9 | 0 |

# WINSOR & NEWTON'S

## "IMITATION STEINBACH" DRAWING PAPER.

*Suitable for Drawing in Water Colours, Pastel Crayons, Pencil and Charcoal, and for general Black and White Work.*

Imperial, 30 by 22½ in., 65 lbs. to ream ... ... ... 3/9 per quire.
Continuous, 54 inches wide ... ... ... .. ... 6d. per yard.

(Reduced prices for original rolls of 25, 50, and 100 yards.)

## HOLLINGWORTH'S

## "IMPROVED" DRAWING PAPER.

| | Weight to Ream. | | Inches. | Per Sheet. s. | d. |
|---|---|---|---|---|---|
| Demy .. ... | 24 lbs., | Hotpressed and Not, | 20 by 15½ ... | 0 | 1 |
| Medium ... | 32 ,, | ,, ,, | 22 ,, 17½ ... | 0 | 1½ |
| Royal ... ... | 42 ,, | ,, ,, | 24 ,, 19 ... | 0 | 2 |
| Imperial .. | 72 ,, | ,, ,, | 30¼ ,, 22½ ... | 0 | 3 |
| ,, ... ... | 90 ,, | ,, ,, | 30¼ ,, 22½ ... | 0 | 4 |
| Dble. Elephant | 130 ,, | ,, ,, | 40 ,, 26⅝ ... | 0 | 6 |

## BEST MACHINE-MADE TINTED CRAYON PAPERS.

| | Weight to Ream. | | | Inches. | Per Sheet. s. | d. |
|---|---|---|---|---|---|---|
| Imperial ... ... | 90 lbs. | ... 33 Tints | ... | 30 by 21½ ... | 0 | 4 |
| Dble. Elephant | 144 ,, | ... 6 ,, | ... | 40 ,, 27 ... | 0 | 6 |

## MICHALLET FRENCH HAND-MADE CRAYON PAPER.

| | | Inches. | Per Quire. s. | d. |
|---|---|---|---|---|
| Royal ... | { No. 1, White<br>{ Nos. 2 to 12, various Tints } | ... 24 by 19 ... | 2 | 6 |

*Pattern Books of Tinted Crayon and other Drawing Papers may be had on application.*

## CARTRIDGE DRAWING PAPER.

| | Weight to Ream. | Inches. | Per Sheet. s. | d. | Per Quire. s. | d. |
|---|---|---|---|---|---|---|
| SUPERFINE: | | | | | | |
| Students' ... ... ... | 60 lbs. | 30 by 22 ... | 0 | 2 | 3 | 0 |
| Imperial (Hotpressed and Not) | 78 ,, | 30 ,, 22 ... | 0 | 3 | 5 | 3 |
| FINE: | | | | | | |
| Medium ... ... ... ... | 30 lbs. | 22 by 17 ... | 0 | 1 | 1 | 3 |
| Royal ... ... ... ... | 48 ,, | 24 ,, 19 ... | 0 | 1½ | 2 | 3 |
| Thin Log ... ... .. | 38 ,, | 26 ,, 21 ... | 0 | 1 | 2 | 0 |
| Thick Log ... ... ... | 48 ,, | 26 ,, 21 ... | 0 | 1½ | 2 | 3 |
| Thin Engineers ... ... | 70 ,, | 30 ,, 22 ... | 0 | 2 | 3 | 6 |
| Thick Engineers ... ... | 90 ,, | 30 ,, 22 ... | 0 | 2½ | 4 | 6 |
| Double Elephant ... ... | 120 ,, | 40 ,, 27 ... | 0 | 3½ | 5 | 6 |
| GOOD: | | | | | | |
| Royal School of Art ... | 40 lbs. | 24 by 19 ... | 0 | 1 | 1 | 3 |
| Imperial School of Art ... | 60 ,, | 30 ,, 22 .. | 0 | 1 | 2 | 0 |
| Imperial White ... ... | 70 ,, | 30 ,, 22 ... | 0 | 1½ | 2 | 3 |

## CONTINUOUS CARTOON CARTRIDGE PAPER.

| | | Per Yard. s. | d. |
|---|---|---|---|
| White Cartoon Paper, Thin | 36 inches wide ... ... ... | 0 | 4 |
| ,, ,, ,, Medium | 45 ,, ... ... ... | 0 | 6 |
| ,, ,, ,, Thin | 54 ,, ... ... ... | 0 | 7 |
| ,, ,, ,, Thick | 30 ,, ... ... ... | 0 | 7 |
| ,, ,, ,, ,, | 54 ,, ... .. ... | 1 | 2 |
| ,, ,, ,, ,, | 60 ,, ... ... ... | 1 | 2 |
| Tinted Cartoon Paper ... ... | 54 ,, ... ... ... | 0 | 10 |

(Three Tints Buff, Stone, and French Grey.)

## Transfer Papers.

In Sheets 22½ by 17½ inches.

Black, White, Red, Yellow, Blue, and Black Lead, prepared on one or both sides.

Prices from 1½d. to 3d. per sheet; 2/- to 5/- per quire.

## Tracing Papers.

In Sheets, 9 varieties, 30 by 20 inches, and 40 by 30 inches,

Prices 1½d. to 5d. per sheet.

Rolls of 21 yards, 27 varieties, 30, 31, 40, 43, 44, and 60 inches wide,

4/6 to 20/- per roll.

PATTERNS ON APPLICATION.

# Solid Drawing Blocks.

*Made of WHATMAN'S Drawing Paper.*

| | Inches. | Series 2 20 Sheets. s. | d. | Series 3 24 Sheets. s. | d. | Series 3a 32 Sheets. s. | d. | Series 4 32 Sheets. s. | d. |
|---|---|---|---|---|---|---|---|---|---|
| 32mo Imperial | 5 by 3½ each | 1 | 2 | 0 | 9 | 1 | 0 | 0 | 9 |
| 16mo Royal | 5½ ,, 4½ ,, | | | 1 | 0 | 1 | 3 | 1 | 0 |
| 16mo Imperial | 7 ,, 5 ,, | 2 | 0 | 1 | 6 | 1 | 8 | 1 | 3 |
| 8vo Royal | 9 ,, 5½ ,, | 2 | 8 | 1 | 9 | 2 | 3 | 2 | 0 |
| 16mo Dble. Elept. | 9 ,, 6 ,, | 3 | 0 | | | | | — | |
| 8vo Imperial | 10 ,, 7 ,, | 3 | 3 | 2 | 6 | 3 | 0 | 2 | 3 |
| 4to Royal | 11½ ,, 9 ,, | 5 | 3 | 3 | 3 | 4 | 0 | 3 | 6 |
| 8vo Dble. Elept. | 12 ,, 9 ,, | 5 | 6 | — | | — | | — | |
| 6mo Imperial | 14 ,, 6¾ ,, | 4 | 9 | 3 | 3 | 4 | 0 | 3 | 3 |
| 4to Imperial | 14 ,,10 ,, | 6 | 6 | 4 | 9 | 6 | 0 | 4 | 6 |
| 3mo Imperial | 18 ,,10 ,, | 9 | 0 | 6 | 9 | 8 | 3 | | |
| Half Royal | 18 ,,11½ ,, | — | | 7 | 6 | 8 | 6 | | |
| 4to Dble. Elept. | 18 ,,12 ,, | 11 | 0 | | | | | | |
| Half Imperial | 20 ,,14 ,, | 12 | 6 | 10 | 0 | 12 | 6 | | |

## SOLID DRAWING BLOCKS WITH COVERS & POCKETS.

*Made of WHATMAN'S Drawing Paper.*

| | Inches. | Half-bound Covers. Series 2 20 Sheets. s. | d. | Series 3 24 Sheets. s. | d. | Series 3a 32 Sheets. s. | d. | Brown Holland Covers. Series 4 32 Sheets. s. | d. |
|---|---|---|---|---|---|---|---|---|---|
| 32mo Imperial | 5 by 3½ each | 2 | 0 | 1 | 6 | 1 | 8 | 1 | 6 |
| 16mo Royal | 5½ ,, 4½ ,, | | | 1 | 9 | 2 | 0 | 1 | 9 |
| 16mo Imperial | 7 ,, 5 ,, | 3 | 0 | 2 | 3 | 2 | 8 | 2 | 2 |
| 8vo Royal | 9 ,, 5½ ,, | 3 | 9 | 3 | 0 | 3 | 6 | 2 | 9 |
| 16mo Dble. Elept. | 9 ,, 6 ,, | 4 | 0 | | | | | | |
| 8vo Imperial | 10 ,, 7 ,, | 4 | 9 | 4 | 0 | 4 | 6 | 3 | 6 |
| 4to Royal | 11½ ,, 9 ,, | 7 | 6 | 5 | 3 | 6 | 0 | 5 | 3 |
| 8vo Dble. Elept. | 12 ,, 9 ,, | 8 | 0 | | | | | | |
| 6mo Imperial | 14 ,, 6¾ ,, | 7 | 0 | 5 | 3 | 6 | 0 | 5 | 0 |
| 4to Imperial | 14 ,,10 ,, | 9 | 0 | 6 | 9 | 8 | 0 | 6 | 6 |
| 3mo Imperial | 18 ,,10 ,, | 13 | 6 | 11 | 0 | 12 | 6 | — | |
| Half Royal | 18 ,,11½ ,, | — | | 12 | 0 | 13 | 0 | | |
| 4to Dble. Elept. | 18 ,,12 ,, | 15 | 9 | | | | | | |
| Half Imperial | 20 ,,14 ,, | 18 | 0 | 16 | 0 | 18 | 6 | — | |

**Series 2 is made of EXTRA THICK Paper; Series 3 & 3a of THICK Paper; Series 4 of IMPERIAL 72 lbs. Paper.*

## SOLID BLOCKS. Series 8.
## FOR WATER COLOUR SKETCHING.

*Made of Machine-made Paper, Not Surface. 20 Sheets.*

9½ inches by 6 ... 12 inches by 9½ ... each 1s.

## SOLID DRAWING BLOCKS. Series 9 and 11.

| | Inches. | | | | | | *Series 9 24 Sheets. s. | d. | *Series 11 32 Sheets. s. | d. |
|---|---|---|---|---|---|---|---|---|---|---|
| 32mo Imperial | 5 | by | 3½ | ... | .. | ... each | — | | 0 | 6 |
| 16mo Imperial | 7 | ,, | 5 | ... | .. | ... ,, | 0 | 6 | 0 | 8 |
| 8vo Royal | 9 | ,, | 5½ | ... | .. | ... ,, | 0 | 9 | 0 | 9 |
| 8vo Imperial | 10 | ,, | 7 | ... | .. | ... ,, | 1 | 0 | 1 | 0 |
| 4to Royal | 11½ | ,, | 9 | ... | .. | ... ,, | 1 | 6 | 1 | 6 |
| 6mo Imperial | 14 | ,, | 6¾ | ... | .. | ... ,, | — | | 1 | 9 |
| 4to Imperial | 14 | ,, | 10 | ... | ... | .. ,, | 2 | 0 | 2 | 0 |

**Series 9 is made of ENGINEER'S Cartridge Paper, and Series 11 of Thick IMITATION STEINBACH Paper.*

## SCHOOL SOLID DRAWING BLOCKS. Series 10.

*Made of Good White Cartridge Paper. 20 Sheets.*

10 inches by 7 ... each 6d. 14 inches by 10 ... each 1s.

## SCHOOL SKETCH BOOKS. Series 29.

(12 inches by 9½.)

With Cloth Backs and Stiff Marble Paper Sides, containing 20 leaves of Cartridge Drawing Paper ... ... each s. 1 d. 0

## SKETCH BOOKS. Series 30 and 35.

*Bound in Brown Holland, with Elastic Band.*

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|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5 | by 3½, | 40 | leaves | each | 0 | 6 | | 40 | leaves ... | each | 0 | 6 |
| 7 | ,, 4½, | 40 | ,, | ,, | 1 | 0 | † | 40 | ,, ... | ,, | 0 | 9 |
| 9 | ,, 5½, | 32 | ,, | ,, | 1 | 3 | | 40 | ,, ... | ,, | 1 | 0 |
| 10 | ,, 7, | 32 | ,, | ,, | 1 | 6 | | 40 | ,, ... | ,, | 1 | 3 |
| 11¼ | ,, 9, | 32 | ,, | ,, | 2 | 0 | | | | | | |
| 14½ | ,, 10, | 32 | ,, | ,, | 2 | 6 | | | | | | |

**Series 30 is made of GOOD CARTRIDGE Drawing Paper, and Series 35 of Thick IMITATION STEINBACH Paper.*

†*Measures 7 by 5 inches.*

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*Made of Good White Paper, suitable for Rapid Pencil Sketches, Brown Holland Covers.*

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|---|---|---|---|---|---|---|---|
| No. 1 | ... 5½ | by 4, | 80 leaves in each Book | ... ... | ... each | 0 | 9 |
| ,, 2 | ... 8¼ | ,, 5½ | ... ... ... | ... ... | ... ,, | 1 | 3 |
| ,, 3 | ... 11 | ,, 8½ | ... ... ... | ... ... | ... ,, | 2 | 0 |

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*Made as Sketch Books, but with the three outer edges fastened as ordinary Solid Blocks.*

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|---|---|---|---|---|---|---|
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| | | s. d. | s. d. | s. d. | s. d. | s. d. |
| 32mo Imperial | ... each | — | 1 6 | — | 1 3 | 1 0 |
| 24mo ,, | ... ,, | — | 2 0 | — | 1 8 | 1 3 |
| 16mo ,, | ... ,, | 2 6 | 2 6 | 2 3 | 2 3 | 1 6 |
| 8vo Royal | ... ,, | 3 6 | 3 3 | 3 0 | 3 0 | 2 0 |
| 12mo Imperial | ... ,, | — | 3 3 | — | 3 0 | 2 0 |
| 8vo ,, | ... ,, | 4 3 | 4 3 | 3 9 | 3 9 | 2 6 |
| 4to Royal | ... ,, | — | 6 0 | — | 5 3 | 3 6 |
| 4to Imperial | ... ,, | 7 6 | 7 6 | 6 9 | 6 9 | 5 0 |

**Series 21 & 21a are made of EXTRA THICK Paper; Series 22 & 22a of THICK PAPER and Series 23 of IMPERIAL 72 lbs. Paper.*

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|---|---|---|---|---|---|---|
| | | | s. d. | s. d. | s. d. | s. d. |
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| 24mo ,, | 7 ,, $3\frac{1}{4}$ ... | ,, | 1 3 | 1 2 | 1 0 | 1 0 |
| Pocket Size | 7 ,, $4\frac{1}{8}$ ... | ,, | 1 6 | 1 4 | 1 3 | 1 2 |
| 16mo Imperial | 7 ,, 5 ... | ,, | 1 6 | 1 4 | 1 3 | 1 2 |
| 8vo Royal | 9 ,, $5\frac{1}{2}$ ... | ,, | 2 0 | — | 1 6 | — |
| 12mo Imperial | 10 ,, $4\frac{3}{4}$ ... | ,, | 2 6 | 2 3 | 1 9 | 1 6 |
| 8vo ,, | 10 ,, 7 ... | ,, | 3 0 | 2 9 | 2 3 | 2 0 |
| 4to Royal | $11\frac{1}{4}$ ,, 9 ... | ,, | 3 9 | - | 3 0 | — |
| 4to Imperial | $14\frac{1}{2}$ ,, 10 ... | ,, | 5 3 | 4 9 | 4 6 | 4 0 |

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*Each Book contains 94 Leaves, perforated on interior edge.*

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|---|---|---|---|---|---|
| No. 1, $3\frac{1}{2}$ by 3 | ... each | 0 5 | No. 4, 8 by 5 | ... each | 1 0 |
| ,, 2, 5 ,, $3\frac{1}{4}$ | ... ,, | 0 8 | ,, 5, 10 ,, 8 | ... ,, | 1 6 |
| ,, 3, $7\frac{1}{4}$ ,, $4\frac{1}{2}$ | ... ,, | 0 10 | | | |

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| 8vo Imperial ... | 10 ,, 7 ... ... ... ,, | 0 | 9 | 0 | 10 |
| 4to Royal ... | 11½ ,, 9 ... ... ... ,, | 1 | 0 | 1 | 1 |
| 4to Imperial ... | 11½ ,, 10 ... ... ... ,, | 1 | 6 | 1 | 8 |

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**NEW SERIES.**

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|---|---|---|---|---|---|---|
| 11 | 9 by 5½ ... ... 8 leaves ... ... ... each | | | | 0 | 1 |
| 12 | 10 ,, 7 ... ... 12 ,, ... ... ... ,, | | | | 0 | 2 |
| 13 | 11½ ,, 9 ... ... 16 ,, ... ... ... ,, | | | | 0 | 3 |
| 14 | 14½ ,, 10 ... ... 16 ,, ... ... ... ,, | | | | 0 | 4 |
| 15 | 14½ ,, 10 ... ... 24 ,, ... ... ... ,, | | | | 0 | 6 |
| 16 | 14½ ,, 10 ... ... 40 ,, ... ... ... ,, | | | | 0 | 9 |
| 17 | 14½ ,, 10 ... ... 12 ,, interleaved tissue ,, | | | | 0 | 1 |
| 18 | 14½ ,, 10 ... ... 20 ,, ,, ,, | | | | 0 | 6 |
| 19 | 14½ ,, 10 ... ... 30 ,, ,, ,, | | | | 0 | 9 |

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|---|---|---|---|---|---|---|
| 4½ by 3 ... ... per Box | 3 | 0 | 3 | 0 | 4 | 0 |
| 5 ,, 3½ ... ... ,, | 4 | 0 | 4 | 0 | 5 | 0 |
| 5¼ ,, 4 ... ... ,, | 4 | 6 | 4 | 6 | 6 | 0 |
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*The above are also put up in boxes, containing an assortment of sizes at 1s. each.*

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MOUNTING BOARDS COVERED WITH WHATMAN'S PAPER ON ONE SIDE.

*Hotpressed, Not, and Rough Surfaces.*

| | Inches. | Each. s. | d. | | Inches. | Each. s. | d. |
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| 16mo Imperial | 7 by $4\frac{3}{4}$ | 0 | 1 | 4to Imperial | $14\frac{1}{2}$ by $10\frac{5}{8}$ | 0 | 5 |
| 8vo Royal ... | $9\frac{1}{2}$ ,, $5\frac{3}{4}$ | 0 | $1\frac{1}{2}$ | Half Royal ... | $18\frac{3}{4}$ ,, $11\frac{1}{4}$ | 0 | 6 |
| 6mo Royal ... | $11\frac{1}{2}$ ,, 6 | 0 | 2 | Half Imperial | $21\frac{1}{4}$ ,, $14\frac{1}{2}$ | 0 | 9 |
| 8vo Imperial | $10\frac{5}{8}$ ,, $7\frac{1}{4}$ | 0 | $2\frac{1}{2}$ | Royal ... ... | 23 ,, $18\frac{3}{4}$ | 1 | 0 |
| 4to Royal ... | $11\frac{1}{2}$ ,, $9\frac{1}{2}$ | 0 | 3 | Imperial ... | 29 ,, $21\frac{1}{4}$ | 1 | 6 |
| 6mo Imperial | $14\frac{1}{4}$ ,, 7 | 0 | 3 | | | | |

Also covered with Whatman's "Special Surface" Drawing Paper for Black and White Drawing. Prices same as above.

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Made in one thickness only of Paper specially selected and manufactured for this purpose.

Suitable for either Pen, Wash, or Colour.

| | Inches. | Per packet of 6 Boards. s. | d. | | Inches. | Per packet of 6 Boards. s. | d. |
|---|---|---|---|---|---|---|---|
| No. 1 .. | $7\frac{1}{8}$ by $5\frac{1}{4}$ | 0 | 6 | No. 4 ... | $14\frac{1}{2}$ by $10\frac{5}{8}$ | 1 | 9 |
| ,, 2 ... | $10\frac{1}{2}$ ,, $7\frac{1}{8}$ | 1 | 0 | ,, 5 ... | $18\frac{3}{4}$ ,, $11\frac{7}{8}$ | 2 | 3 |
| ,, 3 ... | $11\frac{7}{8}$ ,, $9\frac{1}{2}$ | 1 | 3 | ,, 6 .. | $23\frac{1}{2}$ ,, $18\frac{1}{2}$ | 1 | 0 |

## BRISTOL BOARDS.

BEST QUALITY.

| | | | | | 2 sheet. s. | d. | 3 sheet. s. | d. | 4 sheet s. | d. | 6 sheet s. | d. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Foolscap | ... | $15\frac{1}{4}$ inches by | $12\frac{1}{2}$ | each | 0 | 2 | 0 | 3 | 0 | 4 | 0 | 6 |
| Demy... | ... | $18\frac{3}{4}$ ,, | $14\frac{5}{8}$ | ,, | 0 | 3 | 0 | 5 | 0 | 6 | 0 | 9 |
| Medium | ... | 21 ,, | $16\frac{3}{4}$ | ,, | 0 | 4 | 0 | 6 | 0 | 8 | 1 | 0 |
| Royal | ... | $22\frac{1}{2}$ ,, | 18 | ,, | 0 | 6 | 0 | 8 | 1 | 0 | 1 | 4 |
| Imperial | ... | $28\frac{3}{8}$ ,, | 21 | ,, | 0 | 10 | 1 | 3 | 1 | 8 | 2 | 6 |

## CUT-OUT MOUNTS, &c.

Messrs. WINSOR & NEWTON, Limited, pay particular attention to Cut-out Mounts; they also undertake to mount Drawings, &c., intrusted to them, with care and despatch.

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WHITE OR TINTED (15 TINTS).

## Series 1—EXTRA SUPERFINE.

| | | | | | 4 sheet. | | 6 sheet. | | 3 sheet. | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | *s.* | *d.* | *s.* | *d.* | *s.* | *d.* |
| Half Imperial | 21¼ | inches | by | 14½ each | 0 | 3 | 0 | 4 | 0 | 6 |
| Royal ... | 24 | ,, | | 19 ,, | 0 | 4 | 0 | 6 | 0 | 8 |
| Imperial ... | 29 | ,, | | 21¼ ,, | 0 | 6 | 0 | 8 | 1 | 0 |
| Atlas ... | 33¼ | ,, | | 26 ,, | | | 1 | 4 | 2 | 0 |
| Dble. Elephant | 39 | ,, | | 26 ,, | | | 1 | 6 | 2 | 3 |
| | | | | | | | | | 3 | 2 |

## Series 2—LONDON.

| | | | | | 4 sheet. | | 6 sheet. | | 3 sheet. | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | *s.* | *d.* | *s.* | *d.* | *s.* | *d.* |
| Half Imperial | 21¼ | inches | by | 14½ each | 0 | 3 | 0 | 4 | 0 | 5 |
| Royal ... ... | 24 | ,, | | 19 ,, | 0 | 4 | 0 | 5 | 0 | 7 |
| Imperial ... | 29 | ,, | | 21¼ ,, | 0 | 5 | 0 | 7 | 0 | 9 |
| Atlas ... ... | 33¼ | ,, | | 26 ,, | | | 1 | 0 | 1 | 3 |
| Dble. Elephant | 39 | ,, | | 26 ,, | | | 1 | 2 | 1 | 6 |
| Dble. Imperial | 43 | ,, | | 29 ,, | | | 1 | 6 | 1 | 9 |
| *Leviathan ... | 43 | ,, | | 34 ,, | | — | 3 | 0 | 3 | 9 |
| *Antiquarian ... | 53 | ,, | | 35 ,, | | — | 7 | 0 | 9 | 0 |

## Series 3 FINE.

| | | | | | 4 sheet. | | 6 sheet. | | 8 sheet. | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | *s.* | *d.* | *s.* | *d.* | *s.* | *d.* |
| Half Imperial | 21¼ | inches | by | 15½ each | 0 | 2 | 0 | 3 | 0 | 4 |
| Royal ... ... | 24 | ,, | | 19 ,, | 0 | 3 | 0 | 4 | 0 | 5 |
| Imperial ... | 31 | ,, | | 21¼ ,, | 0 | 4 | 0 | 6 | 0 | 8 |

## Series 4—SCHOOL.

| | | | | | | | Ordinary | | Best. | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | *s.* | *d.* | *s.* | *d.* |
| Royal | 24 | inches | by | 19, Medium Thick | ... | each | 0 | 2 | 0 | 2½ |
| ,, | 24 | ,, | | 19, Thick | ... ... | ,, | 0 | 3 | 0 | 3½ |
| Imperial | 31 | ,, | | 21, Medium Thick | ... | ,, | 0 | 3 | 0 | 3½ |
| | 31 | ,, | | 21, Thick | ... ... | ,, | 0 | 4 | 0 | 5 |

* Not made in tints, 55, 56, 59, 62, 65, 66, 67, and 69.

*Patterns of Tints may be had on application.*

## WINSOR & NEWTON'S
# Nonpariel Drawing Pencils.

**HEXAGON ORANGE-POLISHED CEDAR, 4D. each.**

These are a new variety of Drawing Pencils made from carefully selected BRITISH GRAPHITE. They may be used with confidence for all Drawings in which a high-class Drawing Pencil—reliable for smoothness in working and evenness of colour—is a *sine qua non*.

Nonpariel Drawing Pencils are manufactured in twelve degrees, viz.: HHHHHH, HHHHH, HHHH, HHH, HH, H, F, HB, B, BB, BBB, and BBBB, and stamped in gold—"Nonpariel Drawing Pencil, Winsor & Newton, Ltd."

## WINSOR & NEWTON'S
# Drawing Pencils.

PENNY Pencils of good quality, for Schools and ordinary use, Round and Hexagon.

TWOPENNY Pencils, Round and Hexagon, strongly recommended for their richness of colour and variety and evenness of tint.

SIXPENNY Cumberland Pencils, made expressly for the use of Artists, with an extra thickness of lead.

**1s.** Boxes, containing Six Drawing Pencils, Four Drawing Pins, India-Rubber, and a Stick each of Red, White, and Black Crayon.

**2s.** Boxes, containing Six Best Engineer's Hexagon Natural Polished Drawing Pencils of Hard and Suitable Degrees.

## WINSOR & NEWTON'S
# *Sketching* Pencils.

Ever-pointed, four inches in length with extra thick lead ... each, **6d.**
Re-fills for above in boxes containing three Leads ... per box, **6d.**

# Coloured Pencils.

Blue, Red, Green, and combined Blue and Red Pencils in Coloured Polished Cedar. Best quality, **3d.**; Second quality, **2d.** each.

COMPASS PENCILS, plain Cedar, three sizes, two degrees, per dozen, **4d.**

## Creta Levis Pencils,

FORTY-EIGHT TINTS.

In Coloured Polished Cedar ... ... ... ... ... 3d. each.
Boxes containing from 6 to 18 Pencils, assorted tints, 2/- to 13/6 per box.

## Lefranc's Soft Pastel Crayons.

ASSORTED COLOURS.

NOTICE.—These Crayons, being fragile, are LIABLE to breakage in transit, and can only be sent at Purchaser's risk. Their utility, however, is not impaired by their being in pieces.

| | s. | d. | | s. | d. |
|---|---|---|---|---|---|
| Box containing 26 Crayons | 3 | 6 | Box containing 100 Crayons | 15 | 0 |
| .. .. 40 .. | 4 | 6 | .. .. 132 .. | 20 | 0 |
| .. .. 56 .. | 6 | 6 | .. .. 156 .. | 23 | 3 |
| .. .. 62 .. | 9 | 6 | .. .. 200 .. | 33 | 0 |

## Round Pointed Pastel Crayons.

| IN ROUND FANCY CARDBOARD BOXES. | Best Quality. s. d. | Second Quality. s. d. |
|---|---|---|
| Box containing 6 assorted Crayons ... ... ... | — — | 0 2 |
| .. .. 12 .. .. ... ... ... | 0 9 | 0 3 |
| .. .. 18 .. .. ... ... ... | 1 3 | 0 4 |
| .. .. 24 .. .. ... ... ... | 1 9 | 0 6 |
| .. .. 30 .. .. ... ... .. | 2 3 | 0 9 |
| .. .. 36 .. .. .. ... .. | 2 9 | 1 0 |
| .. .. 48 .. .. ... ... ... | 3 3 | |

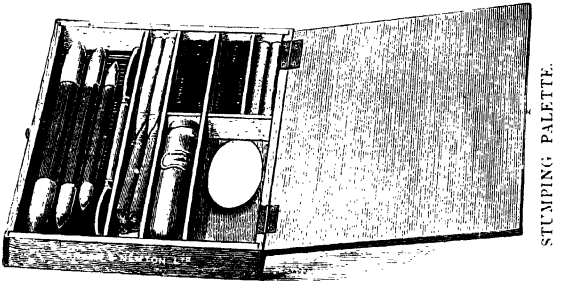
## Crayons and Chalks.

Conté Crayons, Black, Red, and White, Round and Square, in Boxes of 12 sticks ... ... ... ... each 6d. to 1/3.
Ditto in Cedar ... ... .. ... ... .. 2d. & 3d.
Conté Stumping Chalk in Tinfoil ... .. per stick, 3d., 4d., & 6d.
.. .. .. in Glass Bottles ... ... per bottle, 6d.
Winsor & Newton's Stumping Chalk in Tinfoil, per doz., small 1/-, large 1/3.
Lemoine's White Crayons ... per box of 12, Square 6d., Round 9d.
Chalk, Parmenter's Round White ... ... ... per gross box, 9d.
.. .. .. Enamelled ... ... .. .. 1/-.
.. Coloured Demonstration, assorted colours, per box of 12, 6d.

CHARCOAL in Bundles and in Boxes, various sizes and qualities.
STUMPING PALETTES, Oval, lined Chamois Leather ... each 1/.

# Thumb-Hole Palette Chalk Box

## FOR STUDENTS, SCHOOLS OF ART, &c.




Size of Box when open, $10\frac{1}{2}$ by $6\frac{3}{4}$ inches.
Ditto when closed, $6\frac{3}{4}$ ,, $5\frac{1}{4}$ ,,

The Lid of this Box is covered inside with Chamois Leather, which forms a Stumping Palette, and the thumb-hole is arranged to allow the Box being held on the hand as easily as an ordinary Palette.

The Box contains—Four each Nos. 1, 2, and 3, Square Black Conté Crayons; Two each Nos. 1 and 2 Lemoine's Round White Crayons; a Bottle of Stumping Chalk (Velours à Sauce); Two White Paper Stumps; One No. 2 White Leather Stump; Four each White and Grey Tortillons and a Porterayon.

The Box complete, weighs under 8 oz.

**Fitted complete, 3s. 6d.; empty, 2s.**

# The "Handy" Chalk Box.

The sliding lid of the Box is lined with Chamois Leather, and fitted with a thumb-strap, forming a convenient Stumping Palette.

The Box contains—Six Black and Four White Conté Crayons; a Stick of Stumping Chalk; Two White Paper Stumps; Six Tortillons; a Brass Porterayon and a Drawing Pencil.

**Fitted complete, 1s. 6d.; empty, 1s**

## Conté Leather Stumps.

(WHITE OR CHAMOIS LEATHER.)

| | | s. | d. | | | s. | d. |
|---|---|---|---|---|---|---|---|
| No. 1 | per dozen | 1 | 6 | No. 5 | per dozen | 3 | 3 |
| ,, 2 | ,, | 1 | 9 | ,, 6 | ,, | 4 | 0 |
| ,, 3 | ,, | 2 | 0 | ,, 7 | ,, | 4 | 6 |
| ,, 4 | ,, | 2 | 6 | ,, 8 | ,, | 5 | 6 |

## Conté Paper Stumps.

| | | Grey. | | White. | | | Grey. | | White. | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | s. | d. | s. | d. | | s. | d. | s. | d. |
| No. 1 | per dozen | 0 | 4 | 0 | 6 | No. 5 | per dozen | 0 | 8 | 0 | 11 |
| ,, 2 | ,, | 0 | 5 | 0 | 7 | ,, 6 | ,, | 0 | 9 | 1 | 0 |
| ,, 3 | ,, | 0 | 6 | 0 | 8 | ,, 7 | ,, | 0 | 11 | 1 | 3 |
| ,, 4 | ,, | 0 | 6 | 0 | 9 | ,, 8 | ,, | 1 | 0 | 1 | 6 |

## Conté Tortillons.

| | | Per Bundle. | |
|---|---|---|---|
| | | s. | d. |
| Grey Paper | (in bundles of 1 dozen) | 0 | 1½ |
| White Paper | ,, ,, | 0 | 2 |
| ,, large size | ,, ,, | 0 | 3 |
| Tissue Paper | ,, ,, | 0 | 3 |

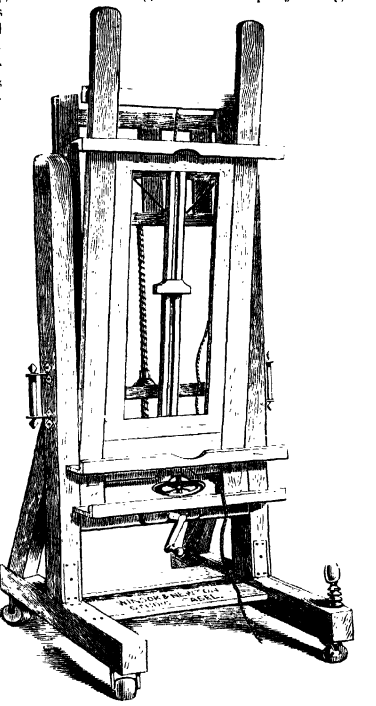
## India Rubber.

| | Per lb. | |
|---|---|---|
| | s. | d. |
| Best Para (Bottle) Rubber, cut to various sizes | 12 | 0 |
| Best White Soft Rubber, 6, 12, 18, 24, 36, and 72 pieces to lb. | 5 | 6 |
| Best Stationer's Rubber, 6, 12, 18, 24, 36, and 72 pieces to lb. | 7 | 0 |
| White School Rubber, 12, 16, 30, and 60 pieces to lb. | 3 | 0 |
| Artists' Rubber, Extra Quality, 8, 12, 16 24, and 18 pieces to lb. | 4 | 6 |
| Kneaded Rubber, 20 pieces to lb. ... ... ... ... per piece | 0 | 3 |

Pencil Pointed Rubber ... ... in sticks, each 1d., 2d., 3d., and 4d.
Nigrivorine Rubber, doubled pointed ... in sticks, each 1d., 2d., and 3d.
Ink and Pencil Erasers ... ... ... ... ... ... each 4d.
Webster's Chalk Erasers ... ... ... ... ... ... each 6d.

# Improved Studio Easels.

WINSOR & NEWTON'S IMPROVED STUDIO EASEL will carry canvases of any size to 9 feet 6 inches in height. The arrangement for projecting a canvas in a forward position is simple and effective; the Easel has a screw winding up movement that is managed with the utmost facility, and which raises with ease a framed picture or Canvas of considerable weight.



| | Each. £ | s. | d. |
|---|---|---|---|
| SMALL STUDIO EASEL, 5 feet high, which will carry a Canvas 7 feet high. | | | |
| Stained Deal ... | 11 | 11 | 0 |
| Polished Oak ... | 11 | 14 | 0 |
| MIDDLE STUDIO EASEL, 6 feet high, which will carry a Canvas 8 feet high. | | | |
| Stained Deal ... | 12 | 12 | 0 |
| Polished Oak ... | 15 | 15 | 0 |
| LARGE STUDIO EASEL, 7 feet high, which will carry a Canvas 9½ feet high. | | | |
| Stained Deal ... | 13 | 13 | 0 |
| Polished Oak ... | 17 | 17 | 0 |

# Polished Oak Studio Easels.

**G** 7½ feet high, with screw winding-up movement ... ... £5 0 0

**H** *Ditto* ditto and forward movement £8 0 0

# Winsor and Newton's Easels.

## SKETCHING EASELS.

| No. | | EACH. £ | *s.* | *d.* |
|---|---|---|---|---|
| 1. | Polished Stained Pine Sketching Easel with sliding adjustable Legs, and Brass Arm which holds sketch firmly at any angle, 6 feet high open, 41 inches when closed ... ... ... ... ... ... ... | 1 | 2 | 0 |
| | Also supplied in natural polished Pine at the same price. | | | |
| 1A. | American White-Wood Sketching Easel, with sliding adjustable Legs, 6 feet high open, 41 inches closed ... | 0 | 11 | 0 |
| | Ditto ditto Polished ... | 0 | 14 | 0 |
| 1B. | The "Amateur" Bamboo Sketching Easel, 4 feet high, (the lightest Easel made) ... ... ... ... | 0 | 5 | 6 |
| 2. | Folding Sketching Easel, American White Wood, 4 feet 2 inches high ... ... ... ... ... | 0 | 2 | 6 |
| 2A. | Superior Folding Sketching Easel, 4 feet 2 inches high... | 0 | 4 | 0 |
| 2B. | Ditto ditto ditto, 4 ,, 2 ,, ,, with self-adjusting springs to fasten each leg ... ... | 0 | 6 | 6 |
| 2C. | Ditto ditto 5 feet high ditto | 0 | 8 | 0 |
| 2D. | Sketching Easel, with sliding adjustable legs, Brass fittings and rack, 5 feet high, 36 inches when closed | 0 | 12 | 6 |
| 20. | The "Walking-Stick" Sketching Easel, Polished Oak. Patent application No. 9096. The most compact Easel made, practical and efficient. It serves the purposes of a Walking Stick when closed, and an Easel when open. The wire pegs for holding the Canvas are contained, when not in use, in grooves cut on the inside of the back leg ... ... ... ... | 0 | 5 | 6 |
| 22. | The "Fernside" Sketching Easel, Deal. Patent application No. 23209. A light folding Easel, very compact and portable, 4 feet high open, 30 inches when closed, weight 2 lbs. ... ... ... ... ... | 0 | 5 | 0 |
| 23.* | The "Radial" Sketching Easel, stained and polished Pine. Heath's Patent. 4 feet 6 inches high open, 24 inches when closed ... ... ... ... ... | 0 | 14 | 0 |
| 24.* | Ditto ditto 6 feet high, 30 inches when closed | 0 | 16 | 0 |
| | (No. 23 is suitable for carrying on the handle-bars of a bicycle, and was originally made for that purpose.) | | | |

*Illustrated descriptive pamphlet of the "Radial" Easels post free on application.*

# Winsor and Newton's Easels.

## STANDING EASELS.

| No. | | Each. £ | s. | d. |
|---|---|---|---|---|
| 3A. | Framed Rack Easel, Deal ... ... 5 feet 6 inches high | 0 | 9 | 6 |
| 4. | Closing Easel, Deal ... ... ... ... 6 feet high | 0 | 7 | 0 |
| 4B. | ,, ,, Spruce, inexpensive, for students Ditto | 0 | 3 | 9 |
| 4C. | ,, ,, ,, ... ... ... 4 feet 6 inches high | 0 | 3 | 0 |
| 5. | ,, ,, Mahogany ... ... ... 6 feet high | 0 | 15 | 0 |
| 6. | Framed Easel, Deal ... ... ... ... Ditto | 0 | 10 | 6 |
| 7. | ,, ,, Mahogany ... ... ... Ditto | 1 | 1 | 0 |
| 10. | Rack Easel, Mahogany, with tray ... ... Ditto | 1 | 17 | 6 |
| 11. | ,, ,, ,, with brush box ... Ditto | 2 | 10 | 0 |
| 12. | ,, Academy Easel, Mahogany ,, ... Ditto | 3 | 1 | 6 |
| 13. | ,, Corbould ,, ,, ,, ... Ditto | 3 | 15 | 0 |
| 14. | ,, ,, ,, ,, ,, and Desk Ditto | 4 | 15 | 0 |
| 15. | Dwarf Rack Easel, Deal, 4 feet high, the rack heightening the Easel to 6 feet 6 inches ... ... ... ... | 1 | 10 | 0 |
| 16. | Ditto, Mahogany Ditto ... ... ... | 2 | 5 | 0 |
| 17. | Rack Easel, Beech, with forward movement, 6 feet high | 1 | 15 | 0 |
| 18A. | The "Radial" Students' Easel, Deal ... ... ... | 1 | 8 | 0 |
| 18B. | ,, ,, ,, ,, ,, ... with floor block and screw in place of legs ... ... ... ... | 1 | 8 | 0 |

*Illustrated descriptive pamphlet of the "Radial" Easels post free on application.*

## TABLE EASELS.

| No. | | s. | d. |
|---|---|---|---|
| 30. | Deal, 18 inches high ... ... ... ... ... ... | 1 | 3 |
| 31. | ,, 21 ,, ,, ... ... ... ... ... ... | 1 | 6 |
| 32. | ,, 24 ,, ,, ... ... ... ... ... ... | 1 | 9 |

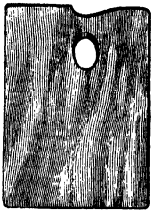
## PATENT HATHERLEY EASELS.

| | | s. | d. | | | s. | d. |
|---|---|---|---|---|---|---|---|
| A | 15 inches high ... | 2 | 6 | B | 45 inches high ... | 6 | 6 |
| AA | 15 ,, ,, for music | 3 | 0 | C | 56 ,, ,, ... | 7 | 6 |

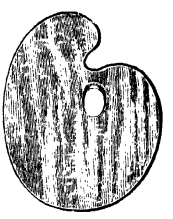
D Studio Easel, 6 feet high ... 8*s.* 6*d.*

# Palettes.

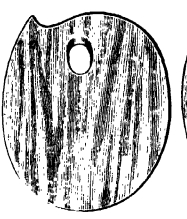
## SPANISH MAHOGANY AND OTHER WOODS.



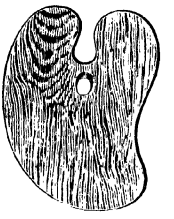
No. 1 Shape.



No. 2 Shape



No. 3 Shape.



No. 4 Shape.

No. 4 is only made in 4½, 10, 12½ and 14-inch Palettes.

### Spanish Mahogany.

| Length | | | s. | d. |
|---|---|---|---|---|
| 7 inches | .. | each | 0 | 9 |
| 9 | .. | .. | 1 | 0 |
| 10 | .. | .. | 1 | 3 |
| 11 | .. | .. | 1 | 6 |
| 12 | .. | .. | 1 | 9 |
| 13 | .. | .. | 2 | 0 |
| 14 | .. | .. | 2 | 6 |
| 15 | .. | .. | 2 | 9 |
| 16 | .. | .. | 3 | 0 |
| 17 | .. | .. | 3 | 6 |
| 18 | .. | .. | 4 | 0 |
| 20 | .. | .. | 5 | 3 |
| 22 | .. | .. | 6 | 0 |
| 24 | .. | .. | 6 | 6 |
| 12 | .. | Folding | | |
| Palettes | | each | 5 | 0 |

### Satin Wood.

| Length | | | s. | d. |
|---|---|---|---|---|
| 7 inches | | each | 2 | 3 |
| 9 | .. | .. | 2 | 9 |
| 10 | .. | .. | 3 | 0 |
| 11 | .. | .. | 3 | 3 |
| 12 | .. | .. | 3 | 9 |
| 13 | .. | .. | 4 | 3 |
| 14 | .. | .. | 5 | 0 |
| 15 | .. | .. | 5 | 9 |
| 16 | .. | .. | 6 | 0 |
| 17 | .. | .. | 6 | 6 |
| 18 | .. | .. | 6 | 9 |
| 12 | .. | Folding | | |
| Palettes | | each | 4 | 6 |

### Mahogany.

*To fit the following Oil-Colour Boxes.*

| | | s. | d. |
|---|---|---|---|
| Pupil's | each | 0 | 6 |
| Pocket | .. | 0 | 9 |
| Tourist's | .. | 1 | 0 |
| Compact | .. | 1 | 3 |
| Student's | .. | 1 | 6 |
| Companion | .. | 1 | 9 |
| Portable | .. | 2 | 0 |
| Academy | .. | 1 | 0 |
| No. 1 Studio | .. | 1 | 0 |
| No. 2 Studio | .. | 2 | 6 |
| No. 3 Studio | .. | 3 | 6 |
| Sketching Box (Folding Palette) | | 1 | 3 |
| Landscape Box (Walnut Palette) | | 1 | 9 |

*No. 1 Shape is sent unless otherwise ordered.*

# Mahl Sticks.

| | Each. s. | d. |
|---|---|---|
| Bamboo or White Wood, 46 inches ... ... ... ... .. | 0 | 6 |
| Brass jointed, White Wood, 36 inches in two pieces ... ... | 1 | 0 |
| ,, ,, 36 ,, three ,, ... ... | 1 | 6 |
| ,, ,, 44 ,, four ,, ... ... | 2 | 0 |
| ,, Polished Bamboo, 38 inches in two pieces ... | 2 | 6 |
| ,, ,, 38 ,, three ,, ... | 3 | 0 |
| ,, ,, 44 ,, four ,, ... | 3 | 6 |
| ,, ,, 56 ,, five ,, ... | 4 | 0 |
| Telescopic Bamboo, extending to 36 inches ... ... ... | 1 | 0 |

# Palette Knives,

## WITH BEST STEEL BLADES.

| | | | LENGTH OF BLADE. | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | 3, 3½, & 4 in. | | 4½ in. | | 5 in. | |
| | | | s. | d. | s. | d. | s. | d. |
| No. 540 | Cocoa handle ... ... ... | each | 0 | 8 | 0 | 9 | 0 | 10 |
| ,, 541 | ,, balanced ... ... | ,, | 0 | 9 | 1 | 0 | 1 | 0 |
| ,, 542 | Ebony handle ... ... ... | ,, | 0 | 8 | 0 | 9 | 0 | 10 |
| ,, 543 | ,, balanced ... ... | ,, | 0 | 9 | 1 | 0 | 1 | 0 |
| ,, 547 | Ivory handle, balanced ... ... | ,, | 2 | 0 | 2 | 0 | 2 | 3 |
| ,, 551 | Cocoa handle, Trowel shape ... | ,, | 1 | 8 | 1 | 9 | 2 | 0 |

**Painting Knives.**

| | | No. 1. | | No. 2. | | No. 3. | | No. 4. | | No. 5. | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | s. | d. | s. | d. | s. | d. | s. | d. | s. | d. |
| Very Thin Blades | each | 2 | 6 | 2 | 0 | 2 | 0 | 1 | 3 | 2 | 0 |

**Ivory Palette Knives.** – No. 1, 4½ inches 1/-; No. 2, 6 inches, 1/3; No. 3, 7 inches, 1/6; No. 4, 8 inches, 2/- each.

# Steel and Tin Ware.

| | |
|---|---|
| Dippers, Plain Tin ... ... ... ... .. | 2d. to 1/4 each. |
| ,, Japanned Tin ... ... ... ... ... | 4d. to 1/6 ,, |
| Brush Washers, Plain Tin ... ... ... ... | 1/3 & 2/- each. |
| do. Japanned ... ... ... ... | 1/9 & 2/3 ,, |
| Oil Bottles, Screw Tops, Japanned ... ... ... | ... 1/3 ,, |
| Scrapers ... ... .. ... ... ... ... | 5d. & 2/- ,, |
| Erasers ... ... ... ... ... ... ... | 1/- & 1/2 ,, |

# Drawing Boards.

## IN BEST SEASONED DEAL OR MAHOGANY.

| | Inches. | | Clamped Deal. s. d. | Panelled Deal. s. d. | Framed Mahogany s. d. |
|---|---|---|---|---|---|
| 4to Royal ... ... | 10½ by 8 | each | 1 0 | 1 6 | 5 0 |
| 4to Imperial ... ... | 13 ,, 9½ | ,, | 1 3 | 2 0 | 6 0 |
| 4to Imperial, full size | 16 ,, 11½ | ,, | 1 6 | 2 10 | — |
| Half Royal ... ... | 17 ,, 10½ | ,, | 1 8 | 2 10 | 8 0 |
| Demy ... ... ... | 18 ,, 13½ | ,, | 1 9 | 3 3 | – |
| Half Imperial ... ... | 19 ,, 13½ | ,, | 1 10 | 3 6 | 8 8 |
| Medium ... ... | 20 ,, 15½ | ,, | 2 6 | 4 0 | – |
| Half Imperial, full size | 23 ,, 16 | ,, | 2 8 | 4 9 | — |
| Royal ... ... ... | 22 ,, 17 | ,, | 2 8 | 4 9 | 12 8 |
| Half Dble. Elephant ... | 24 ,, 19 | ,, | 3 3 | 5 6 | – – |
| Imperial ... ... ... | 28 ,, 19 | ,, | 4 0 | 6 3 | 16 6 |
| Imperial, full size ... | 31 ,, 23 | ,, | 5 3 | 8 4 | — |
| Double Elephant ... | 38 ,, 24 | ,, | 8 6 | 12 6 | |
| Double Elephant, full size | 41 ,, 28 | ,, | 12 6 | — | – |

# The "Triple" Deal Drawing Boards.

## PROTECTED.

Three layers of well-seasoned wood—the centre being placed transverse to the other two—are firmly glued together under great pressure. By this method the liability to warp and twist, which was too common a feature of boards made on the old principle, is reduced to a minimum. The satisfactory character of the "Triple" Drawing Boards is attested by the fact that they are fast superseding the ordinary Clamped Deal Boards.

**Sizes and prices the same as Clamped Deal Boards above.**

# Engineers' Drawing Boards.

These Boards are made of the best picked Dry Pine, one end inlaid Ebony, with mahogany battens at back, having Brass Slots, which allow for the expansion and contraction of the wood. Engineers' Boards are warranted not to get out of the square or to split.

| | Inches. | | | | s. d. |
|---|---|---|---|---|---|
| Half Imperial ... ... ... | 23 by 16 | ... | ... | each | 8 0 |
| Half Dble. Elephant ... ... | 28 ,, 21 | ... | ... | ,, | 10 6 |
| Imperial ... ... ... | 32 ,, 23 | ... | ... | ,, | 12 6 |
| Dble. Elephant ... ... ... | 41 ,, 28 | ... | ... | ,, | 20 0 |
| Antiquarian ... ... ... | 54 ,, 32 | ... | ... | ,, | 28 6 |

# Sketching Portfolios,

**With Japanned Tin Frames to fasten the Paper down.**

**Half-Bound, with Leather Outside Flap, and Linen Inside Flaps to hold Loose Sketches, or Reserve of Paper.**

| | Inches outside Frame | | s. | d. |
|---|---|---|---|---|
| 8vo Imperial ... ... ... | 11½ by 8 ... ... ... | each | 4 | 6 |
| 4to Royal ... ... ... | 12½ ,, 9¾ ... ... ... | ,, | 5 | 3 |
| 6mo Imperial ... ... ... | 15½ ,, 7⅞ ... ... ... | ,, | 6 | 0 |
| 4to Imperial ... ... ... | 16 ,, 11½ ... ... ... | ,, | 6 | 6 |
| 4to Double Elephant ... | 20½ ,, 13¾ ... ... .. | ,, | 10 | 6 |
| 3mo Imperial ... ... | 22½ ,, 10½ ... ... ... | ,, | 10 | 6 |
| Half Imperial ... ... | 22½ ,, 15½ ... ... .. | ,, | 12 | 9 |

# Sketching Stools and Seats.

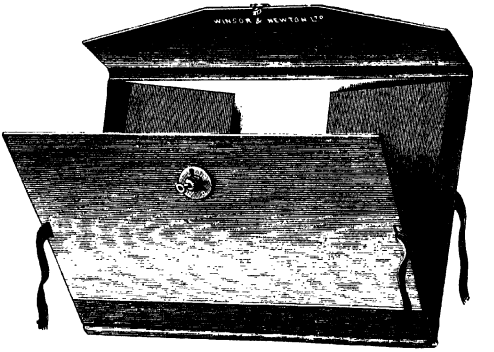
| No. | | Each. s. | d. |
|---|---|---|---|
| 1. | Pocket Stool, loose seat, 18, 21, and 24 inches ... ... ... | 2 | 3 |
| 1A. | Ditto fixed seat, 21 inches ... ... ... ... | 3 | 0 |
| 2. | Ditto best make, fixed seat, 18, 21, and 24 inches ... | 6 | 9 |
| 3. | Square, loose seat, 21 inches ... ... ... ... ... | 3 | 9 |
| 4. | ,, ,, 24 ,, ... ... ... ... ... | 4 | 0 |
| 5. | Square, fixed seat 17 ,, ... ... ... ... ... | 4 | 6 |
| 6. | ,, ,, 21 ,, ... ... ... ... ... | 5 | 3 |
| 7. | Gentlemen's Seat and Easel Combined ... .. ... ... | 18 | 9 |
| 8. | Ditto best quality, leather seat ... ... | 31 | 6 |
| 9. | The Lannigan Stool, size when closed 19½ in. by 10½ by 2 ... | 3 | 0 |
| 10. | Loose Leather Seat, 24 inches, extra strong ... ... ... | 10 | 0 |
| 11. | The "Yeend King" Stool, extra strong, adjustable canvas seat ... ... ... ... ... ... ... ... | 14 | 0 |
| 12. | Sketching Bag Seat, a combination of a Sketching Bag and a good strong stool ... ... ... ... ... ... | 7 | 6 |

# Sketching Umbrellas.

| No. | | £ | s. | d. |
|---|---|---|---|---|
| 1. | Covered Brown Holland or Grey Twill Silicia ... ... | 1 | 8 | 6 |
| 2. | Ditto with movable top joint ... ... | 1 | 11 | 6 |
| 3. | Improved make, with movable top joint, and sliding joint for alteration of height ... ... ... ... ... | 2 | 0 | 0 |
| 4. | Ditto suitable for ladies, nickel silver fittings ... | 2 | 0 | 0 |
| 6. | Covered Brown Holland, movable top joint ... ... ... | 1 | 1 | 0 |
| 7. | French make ... ... ... ... ... ... ... | 0 | 18 | 0 |

# Best Portfolios.

MOROCCO BACK, AND OUTSIDE FLAP WITH GOLD FILLETS
BEST CLOTH SIDES AND INSIDE STIFF CLOTH FLAPS.




| | | | | | | s. | d. |
|---|---|---|---|---|---|---|---|
| Half Demy ... ... | 15½ inches by | 10½ | ... | ... | each | 5 | 6 |
| 4to Imperial ... ... | 15 ,, | 11 | ... | ... | ,, | 6 | 0 |
| Music ... ... ... | 16 ,, | 11 | ... | ... | ,, | 6 | 0 |
| Half Medium ... ... | 17 ,, | 11½ | ... | ... | ,, | 7 | 0 |
| Half Royal ... ... | 19 ,, | 13 | ... | ... | ,, | 8 | 6 |
| Demy ... ... ... | 21 ,, | 15½ | ... | ... | ,, | 10 | 0 |
| Half Imperial ... ... | 22 ,, | 16 | ... | ... | ,, | 10 | 6 |
| Medium ... ... | 22 ,, | 17 | ... | ... | ,, | 10 | 6 |
| Royal ... ... ... | 25 ,, | 19 | ... | ... | ,, | 13 | 6 |
| Super Royal ... ... | 27 ,, | 20 | ... | ... | ,, | 15 | 0 |
| Imperial ... ... | 31 ,, | 22 | ... | ... | ,, | 21 | 0 |
| Atlas ... ... ... | 34 ,, | 26 | ... | ... | ,, | 27 | 0 |
| Colombier ... ... | 36 ,, | 24 | ... | ... | ,, | 30 | 0 |
| Double Elephant ... | 40 ,, | 28 | ... | ... | ,, | 37 | 6 |

BEST BRAMAH LOCKS FITTED TO ANY OF ABOVE AS ILLUSTRATED, 6s. EXTRA.

# Portfolios.

WITH OR WITHOUT STIFF INSIDE FLAPS.

| | | SUPERIOR, Roan Leather Back and Corners, Cloth Sides, & Silk Strings. | | | | SCHOOL OF ART Cloth Back and Corners, Marble Paper Sides. | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Without Flaps. | | With Flaps. | | Without Flaps. | | With Flaps. | |
| | | *s.* | *d.* | *s.* | *d.* | *s.* | *d.* | *s.* | *d.* |
| Half Demy ... ... ... | each | 2 | 0 | 2 | 8 | 1 | 0 | 1 | 6 |
| 4to Imperial ... ... ... | ,, | 2 | 0 | 2 | 8 | 1 | 0 | 1 | 6 |
| Music ... ... ... ... | ,, | 2 | 0 | 2 | 9 | 1 | 0 | 1 | 6 |
| Half Medium ... ... ... | ,, | 2 | 6 | 3 | 3 | 1 | 3 | 1 | 8 |
| Half Royal ... ... ... | ,, | 3 | 0 | 4 | 0 | 1 | 6 | 2 | 0 |
| Demy ... ... ... ... | ,, | 3 | 6 | 5 | 0 | 1 | 8 | 2 | 6 |
| Half Imperial ... ... ... | ,, | 4 | 0 | 5 | 6 | 1 | 10 | 2 | 9 |
| Medium ... ... ... ... | ,, | 4 | 6 | 6 | 0 | 2 | 0 | 3 | 0 |
| Royal ... ... ... ... | ,, | 5 | 6 | 7 | 6 | 2 | 6 | 3 | 6 |
| Super Royal ... ... ... | ,, | 6 | 9 | 10 | 0 | 2 | 9 | 4 | 0 |
| Imperial ... ... ... ... | ,, | 9 | 6 | 12 | 0 | 3 | 6 | 5 | 0 |
| Atlas ... ... ... ... | ,, | 15 | 0 | 18 | 0 | 6 | 0 | 8 | 6 |
| Columbier ... ... .. | ,, | 15 | 0 | 18 | 0 | 6 | 0 | 8 | 6 |
| Double Elephant ... ... | ,, | 20 | 0 | 24 | 0 | 9 | 0 | 12 | 0 |

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| | | | | | | Without Flaps. | | With Flaps. | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | *s.* | *d.* | *s.* | *d.* |
| 4to Imperial ... | 15 inches | by | 11 inches | ... | each | 1 | 3 | 1 | 9 |
| Music ... ... | 16 ,, | | 11 ,, | ... | ,, | 1 | 6 | 2 | 0 |
| Half Royal ... | 19 ,, | | 13 ,, | ... | ,, | 2 | 0 | 2 | 6 |
| Half Imperial ... | 22 ,, | | 16 ,, | ... | ,, | 2 | 3 | 3 | 0 |
| Royal ... ... | 25 ,, | | 19 ,, | ... | ,, | 3 | 0 | 3 | 9 |
| Imperial ... | 31 ,, | | 22 ,, | ... | ,, | 4 | 0 | 5 | 3 |

# Pencil Cases.

CLOTH OR LEATHER.

| | ROUND. | Cloth. | Leather. | Best Leather |
|---|---|---|---|---|
| | | s. d. | s. d. | s. d. |
| No. 1. | 7 inches long by 1 inch diameter, each | 0 3 | 0 7 | 0 9 |
| ,, 2. | 7 ,, 1¼ ,, ,, | 0 5 | 0 9 | 1 0 |
| ,, 3. | 7 ,, 1¾ ,, ,, | 0 6 | 1 0 | 1 3 |

| | FLAT. | Cloth. | Leather |
|---|---|---|---|
| | | s. d. | s. d. |
| To contain 3 Pencils | ... ... ... ... each | 0 3 | 0 9 |
| ,, 4 ,, | ... ... ... ... ,, | 0 4 | 0 10 |
| ,, 6 ,, | ... ... ... ... ,, | 0 5 | 1 0 |

# Japanned Tin Brush Cases,

WITH OR WITHOUT HANDLES.

OVAL.
With removable metal division to protect the points of the Brushes.

| | s. d. |
|---|---|
| No. 1. 8½ inches long ... each | 2 3 |
| ,, 2. 10 ,, ... ,, | 2 6 |
| ,, 3. 11 ,, ... ... ,, | 3 0 |
| ,, 10. 3¼ inches long by 1½ inches diameter, Round, with division in centre | 1 6 |

ROUND.
Without Division.

| | s. d. |
|---|---|
| No. 4. 13 in. long by 1½ in. diameter | 1 6 |
| ,, 5. 14 ,, 2 ,, each | 1 9 |
| ,, 6. 14 ,, 2½ ,, ,, | 2 0 |
| ,, 8. 14 ,, 3 ,, ,, | 1 0 |

# Cloth Brush Cases (Round).

| | |
|---|---|
| No. 7. 8 inches long by 1½ inches diameter. With removable metal division, | each 1 0 |
| ,, 9. Rolling Brush Case, 9 inches long, to hold 9 Brushes | ,, 2 0 |

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| 7 by 5 ... ... | 0 9 | 15 by 13 ... ... | 3 6 | 26 by 22 ... | 11 6 |
| 8 ,, 6 ... ... | 1 0 | 16 ,, 12 ... | 3 6 | 27 ,, 22 | 11 6 |
| 9 ,, 7 ... ... | 1 2 | 18 ,, 14 ... | 4 6 | 28 ,, 24 | 13 6 |
| 10 ,, 7 ... | 1 3 | 20 ,, 15 ... ... | 5 3 | 30 ,, 24 ... ... | 14 6 |
| 10 ,, 8 ... ... | 1 6 | 22 ,, 17 ... ... | 6 9 | 30 ,, 25 ... ... | 15 0 |
| 12 ,, 9 ... ... | 2 0 | 24 ,, 18 ... ... | 8 0 | 32 ,, 27 ... ... | 18 0 |
| 14 ,, 10 ... ... | 2 3 | 25 ,, 19 ... ... | 9 0 | 36 ,, 28 ... | 24 0 |
| 14 ,, 12 ... ... | 2 3 | 25 ,, 21 ... ... | 10 0 | 36 ,, 30 ... | 27 0 |
| 15 ,, 10 ... ... | 2 3 | | | | |

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BLEACHED OR UNBLEACHED.

| Nos. | Inches. | Each. s. d. | Nos. | Inches. | Each. s. d. | Nos. | Inches. | Each. s. d. |
|---|---|---|---|---|---|---|---|---|
| 0 ... | 2 by 1⅝ ... | 0 10 | 5 ... | 3¼ by 2⅝ ... | 3 0 | 9 ... | 4½ by 3⅝ ... | 6 6 |
| 1 ... | 2¾ ,, 1⅞ ... | 1 1 | 6 ... | 3⅝ ,, 2⅞ ... | 4 0 | 10 ... | 5 ,, 4 ... | 9 6 |
| 2 ... | 2½ ,, 2 ... | 1 4 | 7 ... | 3¾ ,, 3 ... | 4 6 | 11 ... | 5¼ ,, 4¼ ... | 12 6 |
| 3 ... | 2¾ ,, 2¼ ... | 2 0 | 8 ... | 4¼ ,, 3¼ ... | 5 0 | 12 ... | 6 ,, 4⅝ | 16 6 |
| 4 ... | 3 ,, 2⅜ ... | 2 9 | | | | | | |

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