"Of making many books there is no end," wrote Solomon in "Ecclesiastes, or the Preacher," a work assigned to the year 977 B.C. If such was the opinion of the wise son of David, king in Jerusalem, nearly fifteen centuries before the art of printing was invented, what cannot possibly be said about the infinite number of books made in the present day? The rolls or continuous slips of parchment on which books were then written with a stylus made an author's work extremely laborious, and although it appeared to Solomon that there was no end to the making of books in this slow manner, the number really produced must have been exceedingly small when compared to the ever-increasing supply of the present day. In the pages of The Bookbinder there have appeared from time to time accounts and illustrations of all kinds of books—printed, written, illuminated; richly bound in silk, velvet, or gold; with tastily and artistically tooled leather covers and backs; all the work of the greatest masters of the bibliopegistic art in England and on the continent. These rare samples, obtained after great research, prove that not only has the making of books steadily increased since printing was invented, but that men love their books, and sometimes are regardless as to what sum they will expend in the binding of the books they love.

It is not the purpose of the present writer to refer to these rare treasures. They are merely mentioned as showing the increased demand not only for books but for superior binding. But there is another class of books, which it is doubtful if Solomon ever saw, used, or knew anything about,—a class of which it may be said, with equal truth, "of making many there is no end." How many thousands of Account-Books—Ledgers, Cash, Day, and Cost Books, Journals, Copy and Letter Copying Books, Memorandum-Books, &c., &c., which the Stationers' binder has to make yearly it is impossible to calculate, and the sizes and shapes of these seem to be almost as various as the changes in English weather. Some of the large ledgers such as those used in banking-houses, mercantile establishments, and factories, where every transaction must be recorded, are very costly, and are constructed with such skill and strength as to excite surprise at the vellum binder's wonderful art.

At the request of numerous readers and correspondents both at home and abroad a short series of papers on Stationery Binding will appear in this journal. In London and most large cities and towns Vellum Binding is carried on as a distinct trade. It often happens, however, that a general binder is asked to do some of this class of work, and could increase his trade if he knew how to do it, besides making a greater amount of profit than if he were to undertake the work and then put it out to be done. It will not be necessary to enter into minute details as to the cheaper and simpler kinds of Stationery Binding, which being mostly stitched through with thread or wire and then covered with marbled paper, or printed wrappers, the operations are the same as in pamphlet work. It is proposed to treat of vellum, rough calf, forti, and laced work; and, to make the series more complete, to commence with a few remarks on

**Machine Ruling.**—In former times a great deal of ruling was done by hand, and many a poor pedagogue and school usher has filled up his spare time at ruling for stationers, in order to add to his income or pittance. Some of the work they produced was excellent,
and gave evidence of great skill and taste. But the ruling machine has usurped their place, and not only does the work truer but quicker and cheaper.

This machine, as will be perceived, is simple in construction, but is remarkable for the precision with which it executes the most difficult patterns. Its bed may be termed an everlasting band. It revolves on two rollers, one at each end, and as the sheet of paper is laid on to marks, this band carries it under the pens, and passes it round below the machine, where it is gathered and laid out to dry. The sheets are kept firmly on the band by means of a series of cords, which in some instances revolve on four rollers, one at each angle of the machine. In modern machines, such as those supplied by Messrs. Hughes and Kimber (see illustration), there are only three rollers. These rollers have grooves for the cords to run in. The whole is easily set in motion by turning a winch by hand; steam-power is occasionally used. The pens, which are made of latteen, or a kind of thin brass, are set to the required pattern in the centre slide, and fixed by screws. The slide can be lifted up at will when what is termed a "stop" has to be made, and dropped again as readily when the ruling is to re-commence. The pens are supplied by means of a piece of flannel saturated with ink of the required colour. This flannel is attached to the slide at the head of the pens, so that the ink runs into the pen grooves down to the points, and marks the sheets as they pass beneath the slide. The workman must see that the paper to be used is cut perfectly square and true before he commences to do his work.

Many stationers' binders are supplied with one or more ruling machines. Hence it is necessary that a stationer's binder should be acquainted with the manner of working one-
In these days of division and subdivision of labour, however, a separate business is made of ruling and paging; and most stationers prefer to have their paper ruled and numbered prior to sending it to the vellum binder. The first operation the account bookbinder is called upon to perform is that of

**Making the Joints.**—When the book in hand is “extra” two sheets of paper should be joined together by pasting a strip of linen on the inside and one on the outside; this forms the end or fly papers; fold and nip them lightly, glue on the marble paper lining, and put in the nipping press again. All the joints should be made in the same way, and then hung up on the poles until dry. If the book is only “half-extra” the linen should not be pasted on the outside of the joints.

**Folding into Sections and Taping.**—Four sheets of paper when folded are generally used as a section; in very large account-books, such as those made in the Bank of England, two are deemed sufficient. When the sections are completely folded, the workman should cut some narrow strips of linen about three-eighths of an inch wide, and after he has pasted them lightly on a smooth clean board, he must place one tape down the centre of every section. The first and last sections should have a tape in every sheet, down the back. When the tapes are all in their places and thoroughly dry, the sections should be placed in the nipping press, three or four at a time, not more. They must be well pressed, otherwise the book will assume the appearance of a “guard book.” This must be prevented.

**Sewing.**—The sewing of account-books differs considerably from that of printed books. Here great strength and durability, combined with elasticity and freedom of opening are essentially necessary. To attain these qualities, strips of vellum, or web tape, are used for hands instead of cords, leaving a space of about two inches apart, the backs are not cut with the saw, and the sheets should be sewn through the whole length. Care should be taken in choosing the thread to be used. Two, three, or four strands are preferable, according to the thickness of the book, and the thread must be well waxed before it is used. Inferior thread is apt to unravel, and must, consequently, be rejected. The needles employed should not be too coarse, otherwise the holes will be made unnecessarily large, and there would be a certainty of glue running through them when performing the next operation. The proper number of strips of vellum or webbing being stretched on a frame or sewing press (take care that these extend about an inch over each side of the back), the sewing may be commenced at one of the joints. The needle should be inserted at the end nearest to the worker, and brought out at the left of the first strip of webbing, then thrust through again at the right of the same strip. This must be continued the whole length of the paper and fastened off securely at the end of each section with a kettle-stitch. All the sections must be treated in like manner, and the other joint with its end papers sewn on at the end. Judgment must be exercised in pulling the thread through; it should always be firm and close, not too tight so as to gird the book. The backs must be kept quite level, or the book will not open freely when finished. Sewing is one of the most important factors in account-book manufacture; unless it be properly done, and the foregoing directions attended to, the book will be spoilt, no matter how well it may be afterwards bound.

The accompanying coloured illustration shows an Account Book bound in White Vellum with Russia Ends, and laced. The most approved way of executing this work will be detailed in a future number.

To be continued.
Stationery or Vellum Binding.

(Continued from page 121.)

Before proceeding to describe the other operations in Account Book making, it has been thought advisable, in acquiescence to several provincial and colonial readers, to give a few more particulars relating to Ruling Machines and the mode of making Ruling Pens. It is well that it should be generally known that one London firm of printers' and bookbinders' engineers (Messrs. Hopkinson & Cope, Payne & Sons, of Farringdon-road, and Otley, Yorkshire) supply an inexpensive but very useful Portable Ruling Machine, which closes up like a box; it is 26 in. by 40 in., and is delivered complete with one double stop and two single pen slides, 250 ruling pens, a bottle each of red and blue ink, with brushes and the necessary flannel. The same firm likewise manufacture Ruling Machines with iron frames and rollers. These machines are most suitable for hot climates, as they are not so liable to warp as those made of hard wood or varnished pine. The firm also make a self-acting sheet delivery apparatus, which can be attached to any machine at a small extra cost. For the ever revolving band, which forms the bed of the machine and carries the paper under the pens and slides, moleskin, ticking, or black glazed cloth are used, according to the means or taste of the machine ruler.

Ruling Pens can be obtained at the rate of from 18s. to 20s. per thousand, and pen points at about 2s. per packet; so it may be thought hardly worth the while to make these articles in the workshop. Yet no one is a perfect machine ruler unless he can make his own pens. The best latten brass is supplied, cut to the proper length of the pen, at about 4s. per lb. The sole agents in London are Messrs. George Royle and Son, 6, Lovett's Court, Paternoster Row. The workman need only provide himself with a small-jawed pair of shears and a pair of pliers, and he can cut his lengths of brass to suit his requirements of either a number of single pens, or two, four, or more at given distances, and then with the pliers press the stems until the grooves are properly made and the points tapered off. Some of the binders' engineers, notably Mr. Frederick Ullmer of the Standard Works, Cross Street, Farringdon Road, supply a Ruling Pen-making Machine, which costs about £3 10s. This is a great desideratum when many pens have to be made. It is simple in construction and can be easily worked.

Sometimes, when an account book is required to be very strongly bound, as is the case with most extra large ledgers, instead of using thread or cord with which to sew the backs, tacketing is employed. Tacketing, commonly called cat-gut, though why it is so termed is a conundrum, is made from the intestines of sheep and lambs, which when dried are twisted, singly or several together, and used not only for violin, harp and guitar strings, but by artificers in
many trades; indeed, small lathes are often driven by gut-bands about as thick as a common window-sash line. For vellum binding, according to the number of quires in the book, tackerting—say the thickness of an E, A, D, or G violin string—will be found sufficient. It is usual with such books, when tackerting is used, to employ web tape for the bands, two lengths with a strip of vellum between them forming each separate band. The holes in these bands are pierced with a steel bodkin, and the tackerting threaded through from one chain-stitch to the bands and fastened off, after being pulled fairly tight, to the other chain-stitch. It is rather difficult work, and sometimes makes the hands pain very much.

GLUEING-UP.—Many vellum binders prefer to use the best Russian glue, but very strong and fine glue can be obtained from English makers, notably Messrs. Bevington, of Bermondsey. Whichever glue may be used care should be taken that it is thoroughly melted to the finest and thinnest degree. The book must again be knocked up at head and back until it is perfectly square; then the backs of the joints should be rubbed over with an even coat of thick paste. This precaution will prevent the glue running between the joints, which would make the book look unsightly after it is finished. Be sure that the glue brush used is a thoroughly clean one; then lay a moderate coating of the hot liquid evenly over the back, removing any loose hairs that may have escaped from the brush, or other impediment to a fair and level appearance after the back has dried. When the glue is perfectly dry, a tape ought to be inserted between the two sections at each end of the book. This will prevent them parting, or breaking away.

CUTTING THE EDGES.—The fore-edge should be cut first. The old-fashioned way of performing this operation was by means of the laying press and plough. It was laborious work, and required the exercise of much care in making the knife to run evenly across, so that the ruled column nearest the front should not be pared too close and be perfectly parallel to the edge. Any deviation in the passage of the knife would cause the edge either to present a jagged appearance, or the top or bottom of the fore-edge to be unequal.

When the fore-edge has been properly cut, the book should be taken out of the cutting press and the back beaten round with the backing hammer, care being taken not to strike the blows too heavily, otherwise there is almost a certainty of cutting the threads or cords, or of injuring the tackerting. The backs of large books ought to be rounded to a greater degree than for other bindings. When the beating is completed make the “paste-ups,” and then put the book in the standing-press for several hours. Do not screw down the press too tightly at first, to prevent the “paste-ups” staining, but after a short time the pressure may be increased. The book may now be taken from the press, and the head and tail cut in the same manner as the fore-edge has been.

Most binders now use a paper-cutting machine, which ensures greater precision, makes a cleaner cut, and performs a large quantity of work with a comparatively small amount of labour. During the last forty-five or fifty years the paper-cutting machine has been a boon and a necessary adjunct to every binder, stationer, paper maker, and printer. The original paper-cutting machine, presumably Wilson’s, has been improved upon from time to time. The knife descended like a guillotine, when the fly-wheel was turned by hand, and cut the edges perfectly even down to the very last sheet, the knife edge falling into a cutting stick or lead, and then returning to its original position. In another machine the knife was worked on the diagonal principle, and made a kind of draw cut. Both these machines had
a platen, which was made to descend and clamp the work by means of a lever with two governing balls, prior to the knife being set in motion. There was also a sliding back against which the work was placed, after being evenly knocked up, and then worked forward or backward to a gauge, so that the cut should be made exactly where it was required. Next, steam-power was applied for working the knife, and a wheel instead of governing balls attached to a screw brought down the platten with greater speed and force. Eventually nearly every engineer made a paper-cutting machine, each with some speciality.

One firm of engineers, Messrs. Orrin and Geer, invented a book and paper cutting machine, which cut three edges of a book, or a packet of note paper, at one stroke of the knife, and with undeviating squareness.

At length, in 1879 or 1880, came the self-clamp paper-cutting machine, an American adaptation of a prior English invention. This machine is entirely worked by steam. By one touch of the hand on the striker it starts at full speed, and clamps, cuts, returns, and stops in three seconds. It also has an indicator, operated by the foot, which shows instantly where the knife will come on the work the whole width of the machine, thus ensuring a true and level cut. There are several makers of these machines. The illustration represents Messrs. Payne and Sons' "Diamond Self-Clamp Paper Cutter." It is simple in construction,
considering its many capabilities, is light in appearance though of great strength, and
occupies less space than other machines of the same description. It has a quick return
travel, and the clamp never leaves its hold on the paper until the knife has passed over it in
its ascent. It is made at Messrs. Payne and Sons’ works, at Otley, in Yorkshire.

The book is now ready for marbling, colouring, or sprinkling the edges. As “Dutch
marbling” is mostly used in stationery binding, a few directions concerning the necessary
preparations and mode of execution may be of use.

**Dutch Marbling.**—The success of the operator mainly depends upon the speed with
which he does his work; it is therefore necessary that all the preparations shall be complete,
* i.e., the colours, sponges, brushes, combs, &c., are placed ready to hand so as to accelerate
the work. The trough must be perfectly water-tight, and somewhat longer than the book to
be dipped, but the sides need only rise about two inches above the bottom; being thus
shallow a lesser quantity of the gum solution will serve to fill it. Dissolve in about half-a-pail
of soft water three ounces of gum-tragacanth, or as it is commonly called gum-dragon,
stirring it from time to time for two or three days till the whole obtains a consistency strong
enough to support the colours on the surface and prevent them from mixing with it. Make
the solution stronger than you need for use, it can be more easily weakened by the addition
of water than it can be strengthened by adding gum. Care should be exercised in choosing
the best white gum, freed from all impurities, and be sure that the water is fresh and clear.
When the gum is thoroughly dissolved, the size, as it is now called, should be strained before
it is placed in the trough. Having selected the colours, say red, orange, blue, and green,
put a portion of each into separate cups with a clean brush or camel’s hair pencil for each
colour. A preparation, consisting of eighteen grains of camphor dissolved in twenty-five
grains of spirits of wine, and a proper proportion of ox-gall is now made, and a portion
poured into each cup containing the colours, which must be well beaten up or mixed to a
proper consistence. A trial should be made by placing a small quantity of the colours on
the surface of the size in a corner of the trough. If the colours spread too widely, more
pigment must be added; if they do not freely expand, increase the quantity of gall. By
agitating the colours placed on the surface of the size with a pointed stick, a test of the size
may also be made. Several trials are generally necessary, and the size may have to be
strengthened or weakened as above described, or more pigment or ox-gall added to the
colours before all will work well together. Always skim off and destroy those little spots
of colour with which the various tests have been made, and do not make the gall preparation
long before it is required for use, it will not keep. When all is in proper condition the
marbling may commence. The colours should be laid on the surface of the size in straight
lines right across the trough. This is done by conveying, with quills, brushes, or iron
pencils, a portion of the contents of each cup and placing them one under the other in
strata-like form until the surface of the size is covered. A marbling comb, which is generally
a wooden implement with metal teeth, about five inches long, is then drawn across
these lines of colour in such a manner as to make them run into each other in a jagged
form. This is done in various places till the whole assumes that unique pattern known as
Dutch marble. The finer kinds, or Nonpareil marbles are made with thinner lines of colour
and combs with smaller or closer teeth.

[To be continued.]
Stationery and Vellum Binding.

(Continued from page 157.)

Having knocked up the volume as above directed, the back is now ready for glueing. The forwarder should take the book in his left hand, and hold it firmly by the fore-edge. If the back is no wider than the front, it should be slightly extended by fanning it out with the right-hand fingers and thumb; and then the glue brush should be applied to the back with a steady hand, and a fair and even coat of glue laid on. None but the best glue should be used, and that must be hot and not lumpy. Large books, such as quartos and folios, ought to be placed between boards and lightly nipped in the laying press, care being taken that the sheets are knocked up even at the back, and that the volume is of equal thickness throughout the entire length.

Now the book may be laid out to dry. It is best to put the book on a board, but by no means near a fire, otherwise the glue is apt to dry unequally and crack; the sheets will probably start from the back, and the firmness of the back be materially affected.

When the glue is perfectly dry, the cords or bands on which the back has been sewn, and which are eventually to be securely fastened in the boards, should be opened, or picked out with a bodkin, and then scraped with a blunt-edged knife; this is done in order to taper them to a point, and make them adhere more easily and firmly to the sides, besides preventing them from showing too prominently through the end papers.

Both the gum-size and colours being prepared and arranged according to the directions given in page 157, the workman will now take the book, and holding it firmly between both hands, carefully, steadily, and lightly dip the fore-edge in the trough, just sufficiently to catch an even coating of the floating marble pattern. The refuse colours having next been cleared from the face of the gum, proceed in like manner to marble the head and tail, and then lay the book on the drying rods. When the colours are perfectly dry it is customary to rub the edges with a little soap or white wax, and then to polish them by means of either a tooth or flat agate, or a blood-stone burnisher. The beauty of the marbling is much enhanced by polishing, therefore it is absolutely necessary that as high and even a polish as possible should be given.

The end papers and board linings should be of the same pattern as the edges of the book. The paper ought to be damped over night and placed under a weight in order that it may the better receive the colours. The pattern being arranged as before directed, the sheet is held by two corners, and laid gently and evenly on the colours, after which it should be softly pressed by the hand that it may bear everywhere on the solution. It should next be raised by two corners and taken off the gum-size with the same care, hung on the drying poles, and finally burnished with the flat agate.

Although the Anglo-Dutch marble pattern is mostly used in Stationery Binding, other patterns are often required. Copy-books, for instance, are invariably covered with marbled paper of the shell pattern or of the Spanish marble. In preparing these the operations are nearly the same; the workman's own taste and judgment will guide him in his choice of colours and in the formation of the veins or shells. It is usual to add two or three drops
of boiled linseed oil to the colours with which it is intended to form the shell and the upper veins, but care must be observed that the oil is well strained, otherwise there may be some seed mix with the colour, and that is objectionable. If the upper veins and the shell do not spread sufficiently, add more oil; if too freely, more colour. The colours for the underneath veins must be treated in the same way with ox-gall.

The colours used for marbling are readily obtainable, therefore it is needless to give a description of their manufacture. Most firms who supply bookbinders' sundries keep colours in air-tight pound jars. Some of them are very expensive, others comparatively cheap. For instance, drop or carmine lake is thirty-five shillings a pound; indigo, ten shillings; and orange and yellow, four shillings and three and sixpence per pound respectively.

The ledger or other account book having had its edges marbled, the outside of the joints should be stiffened underneath the slips with a piece of strong canvas or of button board, folding the flyleaf over twice. It is preferable to use glue for this purpose, paste is insufficiently strong. The book may now be headbanded with patent headband (obtainable at most bookbinders' cloth warehouses), and cloth with strips of calf. For additional strength, it is customary to sew the book the whole length through with tacking at the centre of every fourth or fifth section, commencing at the third. The ends of the cat-gut should pass through a piece of calf over the clothing at head and tail. The gut must be pulled very tight, and should be twisted several times, according to the width of the slip, which ought to be from four to five inches, and be pared along the edges. These slips of calf at head and tail must be let in by cutting the end of the waste leaf and placing them under.

Making the Spring Back.—The length and thickness of the book should be measured with exactitude, and then the back made up of four or five thicknesses of best sixpenny board, such as that supplied by Messrs. Haddon & Co., of 3 and 4, Bouvierie Street, London. The inside board should be the precise size of the back, the outer boards an eighth of an inch wider than each other, and then the whole covered with a piece of best tip board. These, having been firmly glued together, should be nipped in the standing press or well rubbed down. This latter operation is done by means of a small wooden roller, in diameter about half the width of the back, and attached to a strip of brown paper. The back should be warmed over gas so as to soften the glue (precaution being taken not to burn the boards), and then rolled until the glue is well set. It must next be curved on the edge of a cutting board to the exact shape of the book's back, so that it may have a firm grip. Then line the inner board with a piece of linen projecting at least three inches on either side, and drawing it evenly and tightly over the back of the book, glue it firmly in its place. Some binders use a stout milled board, which, having cut to size, they warm by a fire or steam, or soak until it is sufficiently pliable to model or shape to the desired curve, then fix it in the manner above described. However, the softening by fire heat is preferable to soaking in water or steaming.

Boarding.—The side covers ought to be prepared before they are required. The best plan of preparation is as follows: Cut a stout milled board to the necessary size, allowing for the front square to be a shade wider than the end one. Also cut two or more thin milled boards for stiffening, and a thin sixpenny board to form a split, and the inside. These should be pasted together with strong paste, leaving, if the book be heavy and the slips on
which it is sewn thick, a sufficient space at the back to place them in. It is advisable to let the covers thoroughly dry before fixing them at the sides, and when fixed and all the precautions have been taken, to place the book in the standing press, give it a good nip, and let it remain for some hours. This will ensure the work being solid and sound. Care should be taken to cut the milled board back the exact length of the sides. The book is now ready for the next operation.

Covering.—The materials used for covering in Stationery Binding are Russia leather, rough calf, green and white vellum, and forril. The peculiar scent of Russia leather, so esteemed as a covering for books, is given by the empyreumatic oil of the birch. Whether or not the Muscovites have a secret way known only to themselves of using this oil, it is certain that other countries do not tan bookbinders’ leather in such a manner as to give out its peculiar but not unpleasant odour. Russia leather is supposed to preserve books by rendering it impossible for the mischievous little bookworm to live in a volume it clothes. Vellum is a superior kind of parchment, being made from more even, finer, and whiter sheep, kid, or goat skins, prepared specially, and stained according as required. The word parchment is derived from the Latin pergamina, the ancient name of its manufacture, which is said to have been taken from the city Pergamos. Rough calf is denoted by its name, and forril and basil are the common kind of sheep skin.

It may not be out of place here, and be useful to a provincial binder, who possibly cannot get a skin of coloured vellum so readily as he desires, to give a few recipes for staining vellum. **Green:** put one ounce of verdigris and one ounce of white wine vinegar into a bottle, which place near the fire for five days, shaking the bottle three or four times a day. Wash the vellum over with weak diluted pearlash, and then colour it to the shade required. **Purple:** quarter pound of logwood chips and a pint of white wine vinegar served in the same way, will produce an excellent purple. **Yellow:** half an ounce of turmeric and half a pint of spirits of wine prepared in the same way. **Red:** two ounces of vermillion, half an ounce of powdered alum, and a pint of white wine vinegar will produce the orthodox red. **Black:** Wash the vellum three times over with the red mixture, let the first two coats dry, but whilst the third is still wet, treat the skin to a final coat of strong black ink, such as used for marbling.

The coloured plate which faced page 120 in No. xx. represented an account book, bound in white vellum, with Russia ends and laced. The accompanying coloured plate exhibits a ledger bound in red Russia under bands. These are two popular styles of Stationery Binding; the greatest favourite, however, green vellum with double Russia bands and laced, will be illustrated in the concluding article, when the modes of affixing the bands and lacing them will be detailed.

The book ready for covering, if to be clothed in forril, should be lined back and sides with linen to prevent the joints breaking away. If in vellum, stout double crown paper or cartridge will suffice; if in rough calf, the outer lining may be omitted.

Erratum.—In No. xxii., page 156, reference was made to Messrs. Orrin & Geer, who invented a book and paper cutting machine which cuts three edges of a book or a packet of note paper at one stroke of the knife. The gentlemen were described as engineers; they were, however, a firm of bookbinders.

[To be continued.]
Stationery and Vellum Binding.

(Conclusion.)

Great care is required in cutting out the cover from the skin. It must be cut sufficiently large to allow for paring and turning in—in the case of a large book a full inch, for smaller ones not quite so much, but never less than half an inch. The workman should study economy by cutting the skin to the best advantage, so that all strips and odd pieces left may be of such size and shape as to prove useful some other time. The old adage, "Cut your coat according to your cloth," may here be reversed, "Cut your skin according to your cover," but the planning and scheming to save the pieces should be the same.

The cover being cut, the vellum, rough calf or forril, as the case may be, must be pared round the edges with a long knife called the paring knife, on a marble slab. For this purpose the outer side is extended on the slab, and then the knife brought forward gradually from about half an inch inward to the edge; meanwhile the entire cover is to be held firmly by the left hand's flat pressure, and great care taken not to cut through the skin before the edge is reached. Many workmen are very expert in the use of the paring knife, with others it is found to be difficult work. Practice on the scraps and useless oddments and trimmings is recommended, it will give more confidence and tend to make perfect.

Russia Bands.—Large account-books obtain the greatest possible degree of strength by affixing Russia bands to them. These bands are termed "single" when they extend about half way down the sides, and "double" when those at the head and tail reach to the corners of the boards and are turned over the edges in the same manner as the cover. For "single" bands, according to the old-fashioned method, the workman used to measure the length of the book at the back, and then by the aid of compasses divide the whole into seven equal parts or spaces. He then cut three pieces of Russia leather perfectly even at the edges and of the exact size of the spaces they were intended to occupy, and pasted them on the second, fourth, and sixth division of the back, thereby leaving in sight the first, third, fifth, and seventh spaces of the vellum cover. He then drew the bands squarely on the sides, and placed the volume in the press, fixing rods down the length of the book in order to force the Russia into the joints. The book was then left to dry under heavy or light pressure, as required.

When double bands were ordered the back was divided into five spaces, or seven if four bands were needed. The middle band or bands were cut shorter than those at top or bottom, and pasted down in the same way as before described. The long bands at head and tail were pared at the edges so as to enable them the more easily to be turned in at the headbands and over the sides of the boards at the same time as the corners. The edges were cut the same way as in covering, and the adjustment of the rods and the pressing followed as a matter of course.

A modern vellum binder of reputation recommends that the book be measured and divided into nineteen equal parts or spaces, that two of these spaces at top and bottom be allotted to the long bands, and three spaces each to the short ones and the open spaces. He suggests the width of the book should be divided into seventeen equal spaces, giving six
of these divisions or the best third part of seventeen as the size of the short bands. This he terms the “City Fashion.” If the account-book has Russia ends only, he recommends dividing the length of the book into six equal parts, and giving one-sixth at top and another at bottom for the end bands, leaving four-sixths for the centre space. This simple style of measurement he affirms gives greater uniformity and can be adapted to any size account-book, whether folio, long folio, oblong, or quarto. Underbands should be measured in the same way. Whether the old method of division or the modern one is preferable, the practical workman can best decide.

The three coloured illustrations which have accompanied these papers, exhibit the modern style of dividing the spaces.

LACING.—Very stout skins of vellum should be selected out of which to cut the laces. The skin ought to be lined with cartridge or thick double-crown paper, which should be pasted down tightly and evenly. Many workmen size the vellum over with very thin glue, believing that it kills the lime used in dressing the skin. When thoroughly dry, the skin must be cut up into narrow strips, of about one-eighth, or three-sixteenths of an inch wide, according to the size of the book. Care should be taken in cutting the laces that they are exactly uniform in width. The next proceeding is to mark the places on the bands where it is intended to thread the vellum thongs, according to the proposed design, whether diamonds, crosses, squares, or other shapes. With a book in a hole should be pierced at the places indicated by the marks, and the strips of vellum laced through and through, crossed or extended, brought up and down, under and over, until the entire pattern is developed. Every lace must be evenly laid and tightly drawn, the ends of the thongs fastened on the inside, and well-beaten down with a backing hammer. It is advisable to take a clean sponge and wash the laces well with paste water, working the paste water as much as possible under the laces, and when dry cleaning the superfluous paste from the leather bands or the vellum. The end papers should next be pasted in, but before packing up the book in clean paper for finally pressing, tins should be placed inside at beginning and end as fences, to prevent the lacing thongs making ruts, wrinkles or unsightly impressions on the pages of the book. When all is completed and the pasted end papers are perfectly dry the book should be placed under heavy pressure, in order to sink the laces as much as possible and prevent them protruding too much above the bands. The book should then be “eased”—that is to say, the back should be gently beaten with a hammer, which will render it more pliable, and cause it to open less stiffly than might at first be the case.

CLASPS, BRASS BANDS AND CORNERS.—Many classes of account-books are supplied with clasps. These tend to the preservation of the books, as they keep them tightly closed when not in use. Others again are made secure from prying eyes by means of a lock-clasp, so that no one can have access to the book excepting the person who holds the key. Again, many large books are provided with brass head and tail bands at back and front, or with brass corners, or bosses or studs. These not only add beauty to the books, but preserve the covers, and add greatly to the strength of the work. To hide the projection, the clasps would make on the fore-edge, that part of the board must be cut away to admit the clasp, so that when fixed it will be even with the board. For the bands, corners, or bosses this is not done, but to insure a finished appearance in the whole, the workman’s attention must be directed to their fitting exactly in every particular of length, breadth, and thickness. All
the brass fittings may be purchased of the makers, or manufactured to order. In the latter case care should be taken to give the brass-worker full and precise directions as to size. When placed in position they should be made to fit tightly to the boards, run exactly parallel with the edges, and have the holes for the rivets drilled through previous to placing on. No bands are needed when corners are required. Metal bands intended to extend from the back to the fore-edge, and form a corner equal to the breadth of the band, should be squarely soldered in front, placed at the head and tail of the book, and firmly secured with rivets on the inside of the boards. Clasps and corners should be made permanent in the like manner. The drilled brass should be laid on the boards at the place where it is intended to fix it, and then a fine bodkin must be made to enter the holes and pierced through the board, so as to admit the rivets, which should be forced in until the brass is level with the front of the boards. The rivet heads should project about an eighth of an inch, and be shaped to fit the cavities made for them in the bands; they must then be fastened firmly by placing the heads of each on an iron and beating down with a hammer the part projecting inside till it is smooth and even with the surface. Bosses, which are occasionally found on the middle of the boards of old books, particularly of early-bound folio Bibles, &c., in churches, are fastened in like manner.

Finishing.—The placing of lettering-pieces, gilding, and blind tooling are done in precisely the same way as for printed books. Rough calf must be dressed with pumicestone, cleansed with a brush, and ornamented blind, with the tools very hot, to form a dark impression. Vellum will require the tools to be cooler than is required for calf. Sometimes when all is done, and the book is made perfect in every particular, a jacket made of buckram is fitted on to the covers, so as to preserve the colour of the leather and the laces.

Fine Art Books and Booklets.

EADING firms are now busy in preparing the usual booklets for the coming season, and it seems there is to be no diminution in the number this year. Messrs. Eyre and Spottiswoode have already turned out some exceedingly chaste samples at prices ranging from six shillings downwards. The ever busy firm of Hildesheimer and Faulkner have employed leading literary and artistic talent for their collection, which includes two eighteenpenny books exquisitely illustrated in colours and monochrome, and bound in white with block gold design, accompanied by silk cord and tassels. Mr. Ernest Nister’s productions include the “Poet’s Greeting” series, which are bound in covers designed to imitate old brocade. Amongst the novelties in his cheaper specimens are “Homeward Bound,” in the shape of a sail, and tied with silk cord; “Wit and Wisdom,” in the form of two owls; and “Seaside Memories,” with cover made to represent a crab. Messrs. Sockl and Nathan have also ready a fine and varied assortment of new illustrated...