

COWIE'S

BOOKBINDER'S MANUAL:

CONTAINING

A FULL DESCRIPTION OF

LEATHER AND VELLUM BINDING;

DIRECTIONS FOR

GILDING OF PAPER AND BOOK-EDGES;

AND

NUMEROUS VALUABLE RECIPES

FOR

SPRINKLING, COLOURING, & MARBLING;

TOGETHER WITH

A SCALE OF BOOKBINDERS' CHARGES;

A LIST OF ALL THE

BOOK AND VELLUM BINDERS IN LONDON,

&c. &c.

SEVENTH AND NEW EDITION.

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CLERKLYWILL.

In presenting to the Public this new edition of the "Bookbinder's Manual," the Proprietor begs to state, that the whole has been carefully examined, extended, improved, and carried through the Press, by an experienced practical Binder, whose constant occupation, for a series of years, in all the branches here described, has, perhaps, rendered him the most competant person to define, in a systematic and perspicuous manner, the various matters connected with his calling. The work has already run through several editions, and is consequently so well known and appreciated, that but little need be urged in its favour. It may, however, be noticed, that whatever of novelty, in this im-proving age, in the art of Binding, has appeared worthy of insertion, has been carefully collated and appended. On mature consideration, it has been thought advisable to preserve the general features of the earlier editions, and even to retain the original Preface, inasmuch as the former apparently admits of no improvement, and the latter leads to identity. With these few prefatory remarks, the A 2

Proprietor feels the fullest confidence in announcing this (the seventh) Edition as surpassing its predecessors in extended information, and as justly claiming from the practical Binder, the Amateur, and the Public at large, the fullest patronage.

A great omission in the early editions has been supplied in this, with considerable care and accuracy—viz. "A List of all the Master Bookbinders in London," a grand desideratum to the country, as well as to the metropolitan, workman : also, a List of such Principal Firms as supply Articles especially required by the Binder. To the present edition have also been added various matters in a tabular form, embracing — viz. Charges to the Public and to the Trade; a Scale of the various Mill Boards; Cost of Machine Rolling; Pay for Folding and Sewing; also, Average Prices for the General Artieles used by the Binder.

Any additional information pertaining to this work, either in the shape of a new discovery, or change of residence of the Masters, or of any of the Firms supplying the Trade, forwarded to the Proprietor, will be punctually attended to, and appear in the unsold copies in the form of Addenda.

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PREFACE.

IN presenting to the Public the BOOK-BINDER'S MANUAL, the author considers that he has supplied a valuable desideratum. It is not, however, to be supposed that the experienced Binder will require the directions here given; though even he will find some portions of the work, and all of its Recipes, of infinite value: but there are many connected with the art whose knowledge is but superficial: to these, its pages may be considered highly important, as forming a regular system, and containing all that is really essential to enable them to execute their work with neatness and elegance.

It was suggested, that a scale of CHARGES TO THE PUBLIC would be of much utility to the Binder: this has accordingly been arranged, and may be referred to with safety: it is formed from experience, and on the fairest principles, and must always be considered a handy reference for those less experienced in the art.

As it has been the object of the author to convey his instructions in plain and perspicuous language, and to describe the process as minutely as possible, it is hoped the reader will look more for matter of interest than elegance of diction. In submitting his work to the Public, the author trusts it will especially meet with the candour and approbation of those for whose instruction and improvement it has been written. (vii)

INTRODUCTION.

PREVIOUS to entering into a description of the art of Binding, it may not be uninteresting to throw together the few historical particulars which have been collected on the subject. When the art was first invented, it is impossible to ascertain. Philatius, a learned Athenian, was the first who pointed out the use of a particular glue for fastening the leaves of a book together-an invention which his countrymen thought of such importance, that they The most erected a statue to his memory. ancient mode of binding consisted in glueing the different leaves together, and attaching them to cylinders of wood, round which they were rolled: this is called Egyptian binding, and continued to be practised long after the age of Augustus. This method is still in use in oriental countries, and Jewish synagogues, where they continue even to this day to write books of the law on slips of vellum sewed together, so as to form one long page, on each extremity of which, is a roller, furnished with clasps of gold or silver. The invention of the square form of binding, which is now uniformly practised in Europe, is attributed to one of the kings of Pergamus, to whom also we owe the invention of parchment.

A visit to the Library of the British Museum would afford the highest gratification to every binder at all curious in his art: he will there see the most costly and superb specimens of former days-covers adorned with gold, with silver, and with precious stones, combined with the most chaste and costly designs, and a display of labour and elegance equalling, if not surpassing, any similar productions of the present day. The moderns, nevertheless, excel in neatness, variety of pattern, and in ornamental edges, and have latterly displayed considerable talent in expensive and variegated bindings. Beautiful specimens, indeed, of the art may be seen in the shops of the various respectable booksellers of the metropolis. The covering of boarded books has also become surprisingly ' tasty: some years ago they were invariably covered with blue paper: a paper-maker, however, eventually obtained a patent for the manufacture of paper coloured in the pulp, which was so much admired by the public, that its use for the same purpose soon became adopted throughout the trade, and is now brought into general consumption.

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BOOKBINDER'S MANUAL.

FORWARDING.

AFTER the Binder has received the work, and ascertained whether it is to be boarded or bound, he commences with

FOLDING.*

The beauty of the book greatly depends on this part of forwarding; for unless the sheets be folded perfectly even, it is impossible the margin of the book, when cut, can be uniform in the different pages. We must not omit to observe, that Number publications must invariably be refolded; and if there are plates attached,

^{*} This is usually performed by females. For Scale of Charges, vide APPENDIX.

they should for the present be left out. There is no great difficulty in folding the sheets with accuracy, if care be taken to place the folio of the one page on the folio of the other: it should also be seen that the foot of each page exactly correspond, which may be done with merely a glance of the eye. It is almost needless to observe, that the signature should be always kept uppermost. In fact, folding is so remarkably simple, that no further mention of it is necessary: we shall therefore proceed to the next process, which is that of

BEATING.*

Previous to describing this, it may be observed, that the introduction of machinery within these few years has proved exceedingly prejudicial to good binding; for, generally speaking, works struck off by these machines, will not stand sufficient beating to bring the books to that solidity which good binding requires: in-

* Beating is now generally superseded by a comparatively new invention, termed the Rolling Press. *Vide* APPENDIX.

deed this kind of printing, and Number publications in general, will take little more than a good pressing, which, in fact, is always sufficient for such works as have been hot-pressed: the same may also be observed of boarded books, which should never be more than firmly pressed previous to sewing. But such books as are intended for the process of beating, require a large stone, with a smooth surface, and a hammer (somewhat in the shape of a bell), weighing from twelve to fourteen pounds; having these in readiness, the books are beat in the following manner: About a dozen sheets (or sections) are held at a time between, and near, the ends of the fingers and thumb of the left hand, while with the right hand the hammer is raised about a foot, and must fall with rather more than its own weight on the edges of the sections, which should be continually moved round, turned over, and changed, in order that they may be equally beat. During this process, the sections should be occasionally examined, to ascertain whether they have set off; if such be the case, further beating must be discontinued. If the work have cuts, a leaf of tissue paper

should be placed between these and the letter-press. The plates of extra books should never be beat; and cold-pressed and recently printed works should be beat only once round the folds on each side; if the latter be extra work, and more beating be really necessary, the fore-edge must be cut open, and a piece of tissue paper placed between each page. The work is next to be collated, and the plates (if any) to be placed in their respective places; it is then to be taken to the standing-press, and divided into an equal number of continue: into an equal number of sections; these are placed in different directions in the press, in order that they may have an equal pressing; but if there are several books of the same thickness, they will require no division, as each book can then be arranged in the same way as if divided into sections: the press should be screwed down as tight as possible, and after the book has remained in it a proper time, it should be taken out; when, if there are plates to it, they should be pasted in, agreeably to the directions usually accompanying the work. If the book have in-sets, and these have more margin at the head than the

remainder of the sheet, the extra portion should now be cut off with the shears, otherwise the heads will not knock up straight. The sections must be again examined, to see that they follow each other, agreeably to the signatures: the waste leaves are then to be added at the beginning and end; the book is next placed between the knuckles of the thumbs and ends of the fingers, and in this position the head is knocked on a level surface, to bring the sections straight with each other. The back is next levelled in the same way; after which, one side of the book is laid on a pressing-board, the size of the book itself, beyond which the back must project about an inch; and on the uppermost side another pressing-board must be laid, cor-responding in position and size with the one beneath. The two boards must now be tightly nipt with the left hand, and the book carefully lowered in the press, when, being screwed tight, it is ready for

SAWING THE BACKS.

For this purpose a tenant saw is used, and the marks should be made deep enough to allow the cord^{*} to fall in level with the back. It is usual first to make a sawmark at the head and foot of the book, for what are termed the ketch-stitches, and from these the distances of the other sawmarks are measured. For twelves, the saw marks should be about an inch from the head, and about an inch and a half from the foot; but for octavos the distance should be greater, and for quartos and folios it still increases. We shall here state the number of bands the different sized works should be sewn on, which, of course, is a guide for sawing the back, independent of the mark for the ketchstitch: 32mo, common, two bands: if extra, three bands; half-sheet 18mo, four bands, wide in the middle; half-sheet 12mo, 8vo, and two-leave 4to, four bands, wide in the middle; whole sheet 12mo, common, three bands; Svo, extra, four bands, equal distance; royal 8vo five bands, equal distance; whole sheet 4to,

* For twelves it should be rather thicker than twine, for octavos still thicker, and for quartos and folios the size increases. If the work be in halfsheets, the cord should be thinner than for whole sheets. five bands; folio, five, six, and seven bands.

The saw-marks being thus made, they should be opened by working the foldingstick backwards and forwards through them; the book is then ready for

SEWING.*

The bands are now arranged in the sewing-press, agreeably to the saw-marks (with the exception of the ketch-stitch) in the back of the book, and screwed tight: on one corner of the press is placed a little paste, which is used as occasion may require, for pasting the fly-leaves to the sections, † and also such leaves as may be torn; but, before commencing sewing, it may be as well to observe, that the thread must not be drawn too tight at the head and foot, and that the back must be kept equally swelled. The back of the book being placed towards the person, and the title-side uppermost, the fly-leaf is

* Usually the occupation of females. For Scale of Charges, *vide* APPENDIX.

[†] These need be only parted, or may be sewn on, as best suits the convenience of the binder.

first sewn on as follows :--- The needle is first put through the ketch-stitch mark on the right-hand side, with the right hand, and pulled through with the left (leaving about four inches of the thread undrawn through), and with the same hand put through the head side of the Being drawn through with the band. right hand, it is now put through, close to the band, on the other side, and again drawn through with the left. With the same hand, the needle is now put through close to the head side of the next band, and, being drawn through with the right hand, is passed through close to the other side of the band, which is drawn through by the left hand, by which it is put through the ketch-stitch mark; a little paste is now rubbed along the edge of the fly-leaf (but on no other sections, unless torn); the first section of the work is then placed on the bands, ready for sewing; the needle is first put through the ketch-stitch mark with the right hand, and drawn through with the left, and by the same hand put through close to the band on the side next the tail of the page; and, being drawn through with the right hand, with the left the corner of the top half of the section

is folded down;* the next section is then taken up, and the band being placed in the saw-marks, the needle is put through on that side the band next the head of the book : it is then brought out on the left-hand side of the band, and passed through the section turned down on the right-hand side of the band, and brought out on the ketch-stitch mark of the same section (the end of the thread left, and the remainder in the needle is now fied in a knot); the other sections are proceeded with in the same manner, sewing backwards and forwards, the thread being fastened through the ketch-stitches of each preceding section, and every alternate one being turned down, and taken up, as above described. But it must here be observed, that music books,† and those which require frequent

* It is better, perhaps, to sew the first and last sections of a work entirely through, and turn down the third and following.

[†] After unbound music has been long in use, it frequently becomes torn at the back; when this is the case, it is necessary to cut an equal portion from each leaf with a knife and straight-edge : about half a dozen leaves must then be closely *whipt* together, and the book be sewn on *raised* bands, as sawing the back would cut the stitches.

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opening, should be sewn over every band, the above method being too slight for works of this description. For still greater strength, books are sometimes sewn on more bands than already mentioned: when this is the case, the additional bands are not drawn through the covers, but are cut off, after glueing, close to the edges of the back. Having sewn the book according to the strength required, it is perhaps unnecessary to say, that a number of the same size may be sewn at one time in the press, until, in fact, it be three parts full: the strings are then cut at the top of the press, and unfastened at the bottom: the books are now divided from each other, and the bands cut apart, allowing an end of about two inches on either side: this being done, the next consideration is

GLUEING THE BACKS.

This is done by holding the book in the left hand, and drawing the brush up and down with the right. If there be a number ready sewn, they should each be glued separately, and placed one above another to dry, with the fore-edge of the one towards the back of the other: they should not be dried by the fire, as that would cause the folds to start, and deprive the glue of its strength. The next thing necessary, after the back is dry, is to scrape and open the bands. If it be intended merely to put the book in boards, it is now ready for that purpose; and we shall proceed to describe the way in which that is done.

8.4

BOARDING.

The first thing requisite (the book being forwarded as previously described) is, to trim the foot and fore-edge pretty even with the shears:* the back must then be slightly ROUNDED, by gently tapping the edges of the back with the hammer; after which, the back is to be slightly moistened, which renders the glue rather more pliable for the next process, which is that of

BACKING.

This is done by placing a thin beveledged board on each side of the book, far enough from the edges of the back to allow the ledge to project for the board, putting them nearer the back of smaller than of larger books; for the boards of the one being thinner than the other, the ledge, of course, should be in proportion.

^{*} This is now generally done by what is termed the trimming knife, which affords greater expedition and gives the books a neater appearance.

In arranging these backing-boards, care must be taken to place them straight with the back, and at the same distance on the one side as on the other. The two boards must now be grasped firmly with the thumb and fingers of the left hand, and the book lowered into the press, taking care that both boards be equally pressed, and that they be not, in the slightest degree, allowed to shift; the back is then to be gently hammered up and down on both sides, which produces a ledge for the boards: it will then be necessary to observe that the back be perfectly smooth; for any roughness, or knotty substance, will show through the paper. The book is now ready for

PUTTING ON THE BOARDS.

The sides intended to fall in the grooves produced by backing, must now be cut with the squaring-shears, or ploughed square, and with the bodkin two holes pricked in them for each band, the one directly opposite the band itself, and the other about an inch from it: the holes intended for the bands should be near a quarter of an inch from the edge of the

board, and the others about half an inch: the strings are now drawn through the outer side of the boards, and passed through the other hole to the outer side again, when the ends are spread, and a little paste rubbed on them: the board is then rested on the press cheek (or a stone placed upon the press) and the book, with one board closed, held with the left hand, while with the right the strings are hammered flat on the knocking-down iron; this board is next closed, and the strings are flattened on the other cover. The boards are then squared with the pressshears, leaving rather more projection on their fore-edge than at the head and foot. It is now necessary to prepare for what is termed

COVERING.

The dimensions of the open book are taken in length and breadth, and about half an inch should be allowed for turning in all round: on the centre of this another piece of paper must be pasted (termed the lining), in order to strengthen the back, and which should be cut wide enough to extend on the covers about two inches: the whole is now pasted, and very lightly folded over: the paste-brush is next rubbed once or twice up and down the back of the book; after which, the paper is unfolded, and the book laid on the one half (the fore-edge being towards the individual), whilst the other half is care-fully pulled over the back, and the cover lying uppermost; the covers must now be properly adjusted; that is, they must have as much projection at the head as at the foot, and $\hat{vice} \, vers \hat{a}$: they should also be pulled a little forward, to prevent their (what is termed) riding on the back; if this be not done, the book will never open freely. The entire covering is now smoothed with the hands: after which, the sides are turned down, and then the heads, the portion falling on the back being turned in as follows:—The fore-edge of the book is placed in a slanting position on the edge of the work-board, while three fingers of each hand, and the thumbs spread out the covers, the fore-fingers being employed in turning in the ends, which should fall exactly even with the cover: while this is being done, the individual must press himself gently against the bottom of the book, to prevent its slipping down. The

book being again laid on its side, the fore-edge and end-papers before turned down, are now raised up again at the corners, and with the thumb-nails worked one against the other: the portion thus raised up is cut off with a pair of scissors, and the fore-edge part folded over the head and foot ends: the join produced by this fold should fall, as near as possible, in a straight direction from the corner of the cover to that of the book when shut. The outer fly-leaf at each end is now cut in the shape of a half-diamond, and pasted down to the cover, and upon this the next is pasted, and rubbed smooth with the hands. This being done, the thumb-nail, or the folding-stick, should be rubbed round the edges of the covers, to smoothen them. Tin plates, or pieces of glazed board, as large, or larger than the book itself, are now placed on the leaves pasted down, and on the outer sides of the cover: these latter must be put exactly even with the covers towards the back, and just as far must the book be now lowered in the press,* and screwed tight, after which it

^{*} If a pressing-board be placed on each side, and even with the cover, it is of no consequence if it be

should be immediately taken out again. The label should now be pasted on the back, when the book may be considered as finished.

Before leaving this subject, it may not be out of place to observe, that some boarded books have a paper on the backs of a different colour from that on the sides : this sometimes depends on the fancy of the Binder, and sometimes on the individual employing him. When books are thus covered, the strip should be put on before the side-papers, previous to which it must be *lined*, and should extend about an inch on the covers of twelves, but still farther as the books increase in size: the strip should be put on first, the covers adjusted, and the ends turned in: the side-papers should fall on this about half an inch, and the whole must be proceeded with as above described. Some boarded books, instead of a different co-

lowered beyond the level of the back, as the covergrooves, in this case, cannot be affected by the cheeks of the press: by carefully attending to this, particularly in bound books, the edges of the back will be found to project a little beyond the level of the covers, which is always the case with wellbound books. loured strip of paper, have their backs strengthened by a piece of fine canvas, which must be put on precisely as the paper above-mentioned. There is another method of boarding greatly superior: the backs, instead of being sewn on bands, are sewn on strips of parchment, and the whole book is covered with canvas: but it so nearly approaches Vellum Binding, that a reference to that process will be sufficient.

SHEEP BINDING.

UNDER this head are principally included school-books, and such others as require only inferior bindings; for sheep is of much too indifferent a quality for works of a superior description. With this process we shall commence exactly where we did with Boarding, with the exception that, instead of backing, the first thing now to be noticed is

CUTTING THE FORE-EDGE.

It will first be necessary to ascertain whether the plough-knife cuts exactly straight, that is, whether it cuts up or down; and the general criterion of this is, to reverse the plough, and place the eye close to the screw-end of the knife, when, if the point of it falls exactly even with the level of the opposite cheek of the plough, it may be considered to be pretty correct; but if, after all, it should be found to cut up, it may be remedied by placing a small piece of paper between the knife and screw on the side next the point of the knife; but if it cuts down, by putting a similar piece on the reverse side. The book should now be opened in various places, in order to find out the narrowest pages: having done this, the compasses are extended from the edge of the back, on the title-page side, to within a little of the edge of the narrow leaf; the book is now shut, and the compasses (being still kept in the same position) are again placed on the edge of the back, towards the head, and extended on the outer leaf towards the fore-edge, where this arm of the compasses must make a visible dent : the same thing is now done towards the foot, and these two dents are the guides for placing one of the cutting-boards, which, when used for this purpose, is called the runner: these boards are placed in the following manner :- The back-board (against which the point of the knife cuts) is held in the left hand, while with the right the book is placed against it, the fore-edg of which must fall below the level of the board about an inch: the thumb and fingers hold these two firmly together, and with the right hand the edge of the runner is placed exactly even with the dents made in

the fore-edge: the thumb of the left hand is now brought over this board also, and the whole must be held steadily, and in this position lowered into the press, the right hand at the same time adjusting the serews of the press, in such a way as to eause the cheeks to nip it just sufficiently tight to prevent its slipping : the left hand may now be taken away, and both thumbs being placed on each end of the runner, and the fore-fingers on the back board, the whole must be earefully worked down together, until the runner becomes exactly even with the cheek of the press, which must now be serewed up; but in doing this, it sometimes occurs that the side of the book next the back-board will, in a trifling degree, rise: when this is found to be the ease, the right hand must be put under the press, and that side of the book must be gently pulled down. The press must now be serewed up rather tight, and the fore-edge ploughed, taking eare that the knife always cuts from, never towards, the individual: the fore-edge should next be rubbed smooth with a portion of the shavings thus cut off, when the book may be taken out, and is ready for the next operation, which is that of

ROUNDING.

This process principally consists in forming a neat hollow down the fore-edge of the book, corresponding with the round-ness of the back; though, for school-books, consisting of only about half-a-dozen sheets, this is never attended to; but su-superior and thicker books, although only in sheep bindings, should invariably be rounded. Previous to doing this, the press must be reversed, otherwise the groove in which the plough works will be found a considerable obstruction : having done this, the binder begins as follows :----The book is laid on the press, and the edge of the back gently tapt with the hammer, the fingers being placed near where the hammer falls, and the thumb in the centre of the fore-edge: as the hammer strikes, the thumb should press firmly, and the fingers at the same time gently pull towards it: the book should now be proceeded with in the same way on the other side, and should thus be alternately changed, until the hollow be formed. The two sides of the fore-edge must then be placed even with each other, and nipt tight with the left-hand thumb

and fingers, and while in this position, the back part of the book must be lowered in the press about three inches, and screwed tight, where it should remain two or three minutes; and, when taken out, the foreedge will be found to retain the hollow thus formed. It is now necessary to proceed to

CUTTING THE HEAD AND FOOT.

The *Head* must be ploughed before the foot, and the boards placed precisely in the same way as for the fore-edge, the back-board being put about an inch above the level of the head, and the runner just so far from it as will allow of a sufficient portion being cut off to bring the margin about equal to that of the fore-edge: this last board should be arranged as straight with the head as the eye will permit.* In putting the book in

* Beginners sometimes use a square: the reverse side to the title-page is laid uppermost, and one portion of the square placed along the back, the other falling along the head; while in this position, a dent is made near the back, and another near the fore-edge, which serves as a guide for the runner. the press, the individual ploughing must take care to place the fore-edge *towards* him: and in screwing the book tight, the side next the back-board may probably rise; if so, this must be remedied in the same way as mentioned for the fore-edge. The method of arranging the boards, lowering the book, and cutting, is precisely the same as before described. We shall now, therefore, presuming the head to be cut, give directions for

Cutting the Foot.-It may first be observed, that more margin should always be left at the foot than at the head: the depth of the former should be about onehalf greater than that of the latter, which can easily be managed, as books almost invariably have a deeper margin at the foot than at the head; but before compassing, the leaves should be looked through, to be certain that the book will really allow of such additional margin: having ascertained this, the title-page side of the book should be laid uppermost, and one arm of the compasses placed exactly on the edge of the head on the fore-edge side, and the other arm extended to the foot, when two or three leaves must be opened, in order that the pages themselves may be a guide for regulating the distance for extending the compasses: having thus set them, the leaves are again shut, and a dent made with this arm of the compasses on the outer fly-leaf: the same thing is next done towards the back : the back-board is then placed as already mentioned, and the runner even with the compass-holes: the book is next lowered into the press with the left-hand, the foreedge being placed towards the individual, and the book is ploughed. Four or five books may be cut by this method at a time, by knocking them up perfectly even with the one compassed, and always placing this last next the runner. The books are now ready for another process, which we shall defer describing until we have made some remarks on a sort of binding which we thought would be better suited to this place than any other, inasmuch as it could not properly be described until after we had spoken of cutting, and yet ought to precede the covering with leather—we allude to

PAMPHLETS, CATALOGUES, &c.—These kind of books have seldom any other than paper coverings: they are sewn and glued in the same way as bound books; and

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when dry, the bands are cut off nearly close to the backs: these short ends are close to the backs: these short ends are then spread out, and the outer-side of the second fly-leaf is pasted, when the outer-leaf must be rubbed pretty smooth upon it; the same thing is next done on the other side the book: the opened strings are now to be pasted down, after which the paper for covering is *lined* in the centre, pasted, and put on, in the same way as that for boarded books, the lining and the two fly-leaves being generally considered a sufficient substance for the considered a sufficient substance for the covers: however, should these require to be stouter, the outer-leaf is pasted, and a piece of paper (free from knots), or very thin pasteboard, is put upon it, which should be placed over the strings, and even with the back: the outer cover being put on, plates of tin, or pieces of glaze-board, are placed within and outside the covers, and the book is screwed tight in the press, where it should not remain more than a minute: it will then be necessary to plough it, precisely in the way we have described above; but care must be taken that the covers be *perfectly dry* first, otherwise they will be found to shrink below the level of the book : this rule

must be observed with all books that are cut what is termed *flush*, that is, not having projecting covers. It will be as well also in this place to say something of

PRIMERS, &c.-As these kind of books generally fall into the hands of children, the backs are usually made stronger, and the covers stouter than those of Pamphlets. After the book is sewn, glued, and dry, the bands are cut off nearly close to the back, as above-mentioned, and the fly-leaves pasted, on which a piece of thin pasteboard is placed (very near the edge of the back), and smoothed with the hands: a strip of red sheep, according to the size of the back, is then pared on each side: for this purpose the binder has a small slab, or other stone. and a knife like those used by shoemakers: the strip must next be pasted with thick paste, after which the back is to be again glued, and the leather worked tight over it, which should extend on each pasteboard about half an inch: the paper intended for the outside is next pasted, and laid on just near enough the back to cover the join of the strip to the board; it is then rubbed smooth, after c 2

which the book is screwed tight in the press, and when dry, may be cut.

The edges of the books we have just named, and all such as are cut *flush*, are sometimes coloured, though very rarely, as they are generally sold at too cheap a rate to allow of this additional expense, which always immediately follows that of cutting, and is termed

SPRINKLING.

Law-books are never subjected to this process, but remain precisely in the same state as when cut: it is, however, just the reverse with all other books with projecting covers, which are proceeded with as follows :—If there be several already ploughed, and intended to be sprinkled with the same colour, they are placed on the ground, or work-board, side by side, with their fore-edges uppermost : the liquid* now being prepared, a small brush is dipt into it; but before using it on the books, the grosser portion of the liquid should be knocked from the brush, other-

^{*} For various mixtures for Sprinkling, see the APPENDIX.

wise it would fall on them in blotches: the books are then sprinkled by holding any kind of stick, or the press-pin in the left hand, while the *hair* of the brush is gently tapt on it with the right, directly over the books, the hands continually moving, so that every leaf may be equally sprinkled: the books are now placed in the same way on their tails, and when the heads are sprinkled, the tails are placed uppermost, and proceeded with in the same way. There is also another method, which is termed

COLOURING.—For this process the books are differently arranged from those for sprinkling: half a dozen, or more, must be placed one above another, on the righthand cheek of the press, their fore-edges perfectly even with each other, and also the press-cheek itself: a board must be laid on the top one. The liquid now being in readiness, a piece of sponge is dipt into it: and while the left-hand presses firmly on the board, the right must be employed in rubbing this sponge several times up and down the fore-edges: the heads must next be proceeded with in the same manner, and afterwards the tails: they will speedily dry. The better way, perhaps, for colouring, is to screw the books tight in the press; for if the paper be of a spongy texture, the colour is apt to soak into it. In respect to the colours most suitable for sprinkling and colouring, we shall leave that to the discretion of the binder.

The book having been sprinkled or coloured, may now be considered ready for

BACKING.

We have so fully entered into the way by which this is done in our description of Boarding, that nothing farther need be said in this place on the subject. It must, however, be observed, that the back should be rubbed with thick paste, which must afterwards be wiped off with paper shavings; when the book is ready for

PUTTING ON THE BOARDS.

What has been already said on this subject is sufficient: it nevertheless may be as well to mention, that more neatness is usually observed in cutting the boards, and in spreading and flattening the string of bound than of boarded books, the latter being intended, at some after-period, for re-binding, which is never, or very rarely, the case with the former. We shall now proceed to

COVERING.

As we have hitherto confined ourselves to sheep-binding, we shall at present only speak of that leather. Previously to covering with sheep, whether red or pale, it should always be dipt in water, and slightly stretched with the hands. As the skins are very irregular, care should be taken to cut them to the best advantage. If there are many books of the same size to cover, a paste-board pattern is usually made, about half an inch larger in circumference than the book itself, which will allow for turning in: this being laid on the skin, enables the binder to cut it with the requisite accuracy. It is next necessary to pare the leather care-fully round; after which it is to be pasted, and lightly folded over, in which position it should lie a few minutes, so that the paste may slightly soak into it. The next thing is to glue the back afresh, and as the glue sets, the leather should be put on: the method of doing this is the same as covering a boarded book; but the leather must be worked on tightly with the fingers in all directions; the covers are next adjusted, the edges turned down, and the ends tucked in, as for boarding: and in again turning up the fold of the corners (as before mentioned) after cutting them, the head and foot corners must be neatly turned under the fore-edge fold on the cover, which should be done with the thumb-nail. The edges of the covers should then be rubbed smooth with a folding-stick, which must next be used for setting the head, in other words, making it smooth and neat; and when dry, it will be found to retain the form thus given to it. If it be intended to sprinkle or marble the leather,* it should be done now. The book is then ready for Finishing.

* For various Recipes for Sprinkling and Marbling of Leather, see the APPENDIX.

FORWARDING IN BOARDS.

The beauty of a book materially depends upon good forwarding; for unless the greatest care and accuracy accompany the workman throughout this branch of binding, the finisher's labour and taste will be nearly useless. This method of forwarding is always adopted for books of a superior description, and sometimes even school-books, when they run to any considerable thickness, and where superior neatness is required.

We now presume the book to be in the same state of forwardness as when we commenced our description of *Boarding*, and shall first say something of

END-PAPERS, COLOURED LININGS, &c.

All half-bound books should have double papers, and the two outside leaves are to be pasted together, but need not be lined,* unless to pattern or order.

^{*} This is done by folding the sheet (if it be marbled paper) with the plain side outwards: one

Half-extras, and other superior work, should be lined with the best marbled or coloured papers: and 32mos, 12mos, and 8vos, must have their linings put on the second leaf, and the outside one left flying, so that it may be torn out at the pasting down. Quartos and folios must have the fly-leaves pasted to the linings, which makes the joints stronger for large and heavy books. The above directions being attended to, the book is next to be ROUNDED, by gently tapping the edges of the back on each side; after which, it may be considered ready for

BACKING.

As we have already fully detailed this process, there is but little to add in this place; however, it may here be remarked, that great care must be taken in backing extra books: they must be strictly examined, to see that the slant of one side

side of it being pasted, it is laid between the flyleaves, into the fold of which it is closely worked; the other fold is next pasted, and the next fly-leaf rubbed smooth upon it : having done the same thing on the other side of the book, the superfluous portion is cut off with the shears. of the back exactly correspond with the other, and that it be perfectly regular and even: for unless a good back be made to a book, it can never be well finished. After backing, the book should be put between flat boards, and screwed in the laying press: the back should then be raked with a pair of compasses, or an iron rake, and thin paste rubbed on it with paper shavings: the reverse end of the backing hammer is next to be rubbed up and down, when the shavings should be again applied, to wipe off the superfluous paste.

SQUARING THE BOARDS.*

For extra bindings the boards should be lined, and are usually ploughed; but as this greatly injures good knives, an old one should be kept for the purpose; or, in ploughing them, the knife ought to cut *towards*, instead of *from* the individual. The requisite dimensions of the boards are obtained by extending the compasses from the groove produced by

^{*} If it be wished to square the boards by scale, correct dimensions will be found in the first page of the APPENDIX.

backing to the edge of the narrowest leaves in the book, and to the same dimensions are marked and ploughed the back and fore-edge of the boards; they are now stabbed, and the strings drawn through and flattened. The drawing-in holes of octavos should be about half an inch from the edge of the board, and the other hole about an inch; but as a greater projection is required for the boards of larger books, the holes should be pricked still forwarder, to allow them to shift more easily. If there are several books of the same size to bind, of course a number of boards may be cut at one time, for each book must correspond in length and breadth. Having properly adjusted the boards, which should not be put on too tightly, it is necessary to prepare for

CUTTING* THE FORE-EDGE.†

Previous to cutting, the back must be

† Many binders cut the head and tail first.

^{*} In cutting folios, quartos, and all heavy books, it is, perhaps, preferable to tie a thin cord round them, within the boards, about two inches from the grooves, as by this means they are more manageable, and may be cut with greater accuracy.

examined, to see that it has not been displaced by the standing press: if any defect be observed, it must be remedied by the backing-hammer; after which, with a bodkin, or one arm of the compasses, a line must be drawn down the book itself, on the title-page side, the foreedge of the board serving for the guide; this being done, the fore-edge is proceeded with in the following manner: Trindles* are placed between the boards and the back of the book, near the head and tail, both ends resting on the two boards. The book itself is next held on each side with the open hands, and the back is knocked on the cheeks of the press, which, by means of the trindles, again brings it to a perfect level: while in this position (the back and extended boards resting on the press-cheek) the back-board is arranged with the left-hand, and the runner with the right, placing it as much below the compass-line on the fore-edge, as the square of the boards are intended to project: the boards are then pressed tight between the thumb and fingers of

^{*} *Trindles* are thin bevel-edged pieces of wood, or iron, about the width of the back.

the left hand, and the back examined to see whether it be correct and even; if so, the trindles may be taken out, and the book carefully lowered into the press: when ploughed, the book will again fall into its former position, and a groove corresponding to it will be thus formed in the fore-edge. It is now necessary to prepare for

CUTTING THE HEAD AND TAIL.

The boards are first knocked up straight with the head, and must be carefully kept in the ledge produced by backing; the square may now be used as previously mentioned, although practice renders this unnecessary, and the same rule must be observed for the margin; the back board and runner are next placed as we have already described, and the boards and book are ploughed together: the boards are now slipt below the head as much again as it is intended they shall project (which should be somewhat less than the fore-edge); they are then compassed as before described, and are cut in the same way as the head was: the boards now being equally divided, there will be found a sufficient projection for both ends: a trifling piece should now be taken off the inner corners of the boards, to give the head and tail, when the book is covered, a neater appearance: the book is then ready for

SPRINKLING, MARBLING, &c.

In regard to Sprinkling, we have nothing to add to what has been already said on the subject, with the exception that extra books are usually sprinkled with more care and neatness: we may, how-ever, observe, that all books containing plates, should, when sprinkled, be screwed tight in the press; for plate-paper is generally of so spongy a texture, as to render the colours likely to penetrate beyond the surface.—The edges of extra books are now more generally marbled than sprinkled; and if they have marbled linings, the edges should correspond in pattern: for this process, the books are usually sent to the marbler's: but those who wish to marble their own bindings, who wish to marble their own bindings, will find the method clearly explained in the APPENDIX.—Gilding of the Edges may, in London, be considered nearly a distinct

branch; but a full description of the process will be found immediately after Vellum Binding. Gilt edges require much care; and, to preserve them uninjured, before further proceeding with the book, the entire fore-edge, and head and tail, should be enveloped in paper. After Sprinkling, Marbling, or Gilding the edges, the books are ready for

HEAD-BANDING.

Head-bands are placed at the head and tail of all extra books, and also those of inferior bindings, when they exceed in thickness common spellings. *Worked* head-bands are used for the former, and should consist of silk; and *stuck-on* headbands for the latter, which are made of small pieces of striped linen of various colours. These two sorts of head-bands are so very differently formed, that we shall describe them separately, beginning with

WORKED HEAD-BANDS.—These headbands are sometimes worked on small strips of thick vellum, which give them a square rather than a round form; but more frequently on paper, rounded and prepared as follows:—A piece of thread, or very thin twine, is placed on a slightly-pasted piece of paper, which must be narrow or wide, according to the required size of the band; this should be first rolled round with the fingers, and afterwards with a small piece of flat board, upon a level surface, and must be occasionally moistened; this will speedily bring it to a round hard substance, when, after drying by the fire, it may be considered as ready for the purpose intended.* These head-bands should be made of various degrees of stoutness, to suit small or large books: having a number in readiness, care must be taken to select them of the proper size for the book about to be head-banded; the criterion is, that they do not stand so high as the boards project, by the difference of twice the thickness of the leather the book is to be covered with, allowing also for the silk to be worked round it; however, without any kind of measurement, the eye will be a sufficient guide for this. Two pieces should now be cut off, exceeding in

^{*} They can be purchased in London ready prepared, at from 6d. to 2s. the hundred.

length the width of the back by about an inch. The silk for these head-bands should be rather stout, and well twisted: two different colours sometimes are worked together, consisting of two threads of the one, and four of the other, or an equal number of each; but it is now more generally the custom to use but one colour, when, of course, the threads must always be equal: the coloursemployed for this purpose, depend upon the fancy of the binder_green, pink, yellow, red, blue, or any other colour may be used. A long needle is now requisite; and if the band is to be worked with one,* two, or three threads over each other, a single, double, or treble thread should be drawn through it, which must be of sufficient length for the entire head-band: if two different coloured silks are to be used, they must be tied together, that portion on which the needle is placed being longer than the other, and we shall presume it is intended to form the head-band with this latter. Having, therefore, the needle and

The head-bands of half extra books should be worked with a single thread, extra with a double thread, and super-extra with a treble thread.

silk in readiness, the book, if quarto or folio, or any heavy work, should be very slightly screwed in the press,* with the back uppermost, and the end on which the head-band is to be placed considerably elevated: the needle must now be run through the midle of the second section on the left-hand side, just below the ketchstitch, and drawn out far enough to bring the knot in the join of the two threads close to the centre of the section; the needle is again put through the same place, and the thread drawn nearly close; the head-band is now placed under the loop thus formed, and the end to which the needle is attached, is pulled tight with the left hand, and the other end is brought over with the right, and passed under and over the head-band, when that is held tight with the left hand; the other end is now put over that, and also under and over the head-band: they are thus worked alternately over each other, as far as about the middle section of the book, through which the needle is again passed below the ketch-stitch, and brought over

^{*} Books from 32mo. to 8vo. may be head-banded between the knees.

the head-band, when the working is pro-ceeded with as before, as far as the last section but one; the needle is passed through this section and over the headband twice, and finally fastened on the back: the ends of the head-band are now cut off nearly close to the silk at either end, but this must be done in a peculiar manner: the edge of the knife must be held towards the silk, so that when cut, the head-bands at each end should form a small notch; by this means, they are more readily turned up, which is requisite, to prevent the silk slipping off The part produced by working one thread over the other, is called the *braiding*; this is considered the principal beauty of the head-band, and should therefore be formed with great neatness, being perfeetly regular throughout, which may easily be managed, by pulling each thread, when working, with an equal degree of tightness; this braiding should be nicely smoothed with a thick folding-stick, and made perfectly flat. The other end of the book is next placed uppermost, and proceeded with in the same way. The head-bands being now finished, the gluebrush should be drawn along them, on

the back of the book, as this will tend to bind them on more tightly; but the brush should not touch the top of them. —We shall now proceed to a description of the

STUCK-ON HEAD-BANDS. — These are formed more readily than the preceding, but they do not possess equal beauty, having no braiding, and are consequently not used for extra binding: they are formed by cutting a piece of linen about an inch deep, and the length equal to the width of the back: one side should now be pasted, and a piece of well twisted string, or a portion of the band above-mentioned, laid in one-third of its width; it is next folded over, and pressed close up to the head-band: each end of the back of the book is now glued, and the linen laid upon it, the head-bands themselves being placed flat on the leaves.

HOLLOW BACK.

This method has come into general use for almost all books of a tolerably good thickness, and may be considered a great improvement on close backs, the leather being less likely to crack, and the book opening with more freedom. The hollow back is generally formed by cutting a strip of paper twice the width of the back, and the exact length; this must be folded in half. The back now being fresh glued, one half of the fold should be placed upon it, and the other folded over it, when it will be ready for (what are generally adopted)

STUCK-ON BANDS.

These are formed by placing strips of stout leather across the back, narrow or wide, and at such distances from each other, as may suit the fancy of the binder: they should be firmly bound on by glue, and when this has properly set, should be neatly pared down at each end, but not on the sides: these may be considered a great improvement upon the old method of sewing upon what may be termed raised bands, which is generally to be seen on the backs of old books, that is, instead of the bands falling in the sawmarks level with the back, they were raised above it. The binder's next consideration is that of

COVERING.

The observations made on *sheep-binding* equally apply here, with the exception that more care and neatness are required.

In covering extra books, the leather must be nicely pared; and the fold of the leather at the corners should be made to fall exactly even with each corner of the fore edge: in tucking the ends in, enough must be again drawn out to cover the head-bands. The head must now be neatly set with the folding-stick, pressing it rather inwards where the boards have been cut away, and flattening the leather nicely over the top of the head-bands: the form thus given it in its damp state, it will retain when dry. If the covers are intended to be sprinkled or marbled,^{*} this should be done before the book be further proceeded with.

Most leathers require damping before covering; of course all leathers, where the grain and gloss would be affected by moisture, are an exception. The grain of morocco will be considerably thrown up by using glue, instead of paste, for

^{*} Vide Appendix.

covering: the glue should be put thinly on one of the boards, and the leather laid carefully on it; the book should then be turned over, the board slightly glued, and the leather carefully drawn over that also: the portion intended to fold over the inner sides of the boards may be pasted, and worked down as other leathers, it being of less consequence to preserve the beauty of the grain here, than on the outer covering. Russia leather should be immerged twenty minutes in lukewarm water, and beat and rubbed well on the cheeks of the press, and be left in paste an hour, before covering.

HALF BINDING.

In half-bound books the leather should be of a proportionably greater width from the edge of the back for larger than smaller books: the corners should be cut of an oblong shape; and both back and corners must be neatly pared: the corners are to be put on first, and the strip on the back afterwards, in the same way as for whole binding. The marble paper must be cut with a straight edge, and laid on the intended distance from the back: it should now be folded back at the corners, which back-fold must be cut off: it is then to be pasted and laid on the side of the board, taking care to allow an equal distance from the edge of the back and the centre of the corner. The book, either whole or half-bound, may now be considered as entirely out of the Forwarder's hands, and ready for the Finisher.

FINISHING.

We have now come to that part of binding where much is left to the taste of the workman. The various patterns which have been invented from time to time are almost innumerable; and on the judicious use of these entirely depends the external beauty of the book. In this branch of binding, it is requisite, in the first place, to wash the cover over with

SIZE OR GLUE-WATER.*

This is used to prevent the glaire from sinking into the covers. In applying it, the boards should be held in the left hand, with the covers extended over the thumb and fingers; a sponge must then be dipt in the size-water, and the entire cover slightly rubbed over with it: the book is

^{*} Some use paste and water mixed together to about the consistency of thick milk. If size or glue-water be used for common calf it should be rather stronger, and for Russia stronger still.

now to be placed end uppermost, until dry, or sideways on the edge of a table, or something similar, allowing one board to hang down. Care must be taken not to rub the size-water on the side-papers of half bound books, but it must be applied to the leather at the corners. When the cover is dry, the back must be prepared for filleting, by

MARKING THE BANDS.

The back is first to be divided with a pair of compasses, into three, four, or five parts, according to fancy, and the line of these divisions should fall, as near as possible, on the bands, allowing more space next the foot: the divisions being thus equally taken, a folding-stick is to be rubbed across the back, to make a more sure guide for the fillet: a line must also be made with it near the head, and, generally, two at the foot. If it be intended to put on a lettering-piece (which is not required for fancy-coloured leathers), it should now be done: this must be pared so thin, as scarcely to be perceptible on the back, and cut so as to fit in exactly between the second and third

60 COWIE'S BOOKBINDER'S MANUAL.

bands from the head. The covers are now ready for

GLAIRING.*

It may here be observed, that it is always essential to keep good glaire, otherwise it will be impossible to give the gold a proper lustre; the glaire is to be rubbed over the entire cover, in the same way as the paste-water, and must thoroughly dry before each fresh application. Morocco and roan only require but once

^{*} Glaire can be bought ready prepared, in London, at the shops of nearly all the vendors of millboard, at 1s. 3d. per quart; but as it may not always be convenient to procure this, we will give directions for preparing it for immediate use on a small scale: Make a hole in the shell of an egg, and let the glaire run into a cup: cut the end of a quill into cross slits, about an inch in length, and bend the slip pieces out horizontally: place these in the glaire, and work backwards and forwards the feather part of the quill between the palms of the hands: this will produce a froth, the whole of which, after standing a few hours, must be skimmed off, when it may be considered as fit for use: a little salt thrown into it, tends to preserve and clear it. All books, whether gilt or otherwise, must be glaired; but the paper covering the sides of halfbound books should be sized.

glairing, sheep twice, and (if the pastewater has been used) calf three times; but if the cover has been sized, twice will be sufficient. Russia leather, previous to finishing, should be washed over once with serum of bullock's blood, which will give it a gloss, and prepare it better for the next process, that of

FILLETING.

Several books of the same dimensions, if the backs be tolerably flat (as is usually the case with school-books), may be filleted at the same time. A piece of wood, commonly called a filleting board, or T, should be screwed tight in the cutting press; it must fall below the level of the backs of the books, which should be ranged side by side against it, care being taken to place them exactly even one with the other. The cushion being now in readiness, a leaf of the book containing the gold must be gently opened*

^{*} Handling the gold requires considerable care: the least air, or even slightly breathing on it, will frequently prove the loss of the entire leaf.

at the end, where it must be lightly struck with the knife; this will produce sufficient air to raise the gold, so as to admit the knife under it, by which it should be carefully conveyed to the cushion : it must next be cut into pieces, a little longer and wider than the face of the fillet, or roll, intended for covering the bands. The fillet is now to be put to the fire, until it has received a moderate heat :* the face of the fillet must then be rubbed with an oiled rag, and rolled over each separate strip of gold, until covered. Holding the fillet in the right hand, and the left on the books, the fillet should be firmly pressed over the marked bands till the whole are filleted; after which, if it is not to be lettered, the impressions should be cleared with a piece of flannel.

^{*} All tools used for finishing, must be previously heated; but new ones require a greater heat than those which have been a considerable time in use: practice is the only sure guide: some idea, however, may be formed of the correct heat, by applying to the tool a piece of damp sponge, when, if it produces a slight hissing sound, it will, in most instances, be found a tolerably fair criterion.

LETTERING.

On preparing the leather for the gold, it is first necessary to enclose some tallow* in a piece of linen rag, which should be rubbed over the lettering-piece until *slightly* greased; for if too much be rubbed on, it will materially affect the brilliancy of the gold: a leaf of the gold must now be conveyed to the cushion; and a sufficient portion cut from it to cover the lettering-piece, on which it must be placed by a piece of cotton-wool, which will cause the gold to adhere to it by first rubbing it on the cheek: with the same piece of wool the gold must afterwards be slightly pressed, to bind it more firmly to the leather. The book must now be put in the laying-press, with the head more elevated than the foot. The brass letters must then be moderately heated

* Some finishers use palm oil, which perhaps is better : this also should be enclosed in a linen rag, and kept in a cool place ; others use sweet oil.

† Metal types are an excellent substitute for these; but in lettering with them, the entire word must be adjusted in a stamping-frame, it being nearly impossible to use them separately: more expedition is also necessary, as metal will not retain the (either in sand or before the fire), and each rubbed, before lettering, on a piece of rough calf; they should then be lightly pressed on the lettering-piece, one after the other, ranging them perfectly *straight*; but this requires some little practice: the best guide for beginners is, to mark a straight line where the letters are to fall, previously to putting on the gold, which is now to be rubbed off as before-mentioned.

GILT BACK.

The backs of such books as are intended to be ornamented with various tools, are usually entirely covered with gold:* this must be cut in strips the

requisite heat near so long as brass. Some heat metal types in boiling water : but this is objectionable, inasmuch as there will always be a partial steam arise from the letters thus heated, which is likely to deaden the gold : heating them before the fire is preferable, taking care not to put them too close, or they are likely to melt.

* During hot weather it will be advisable not to cover more than about twelve volumes at one time, and in very cold weather not more than eight : when in mild weather twenty may be covered before finishing. width of the back, and placed on in the same way as for lettering, joining one piece to another, until the back be covered. The book must now be put in the layingpress, nearly level with the back, perfectly even, and screwed moderately tight: the fillet is then to be put over the bands, on either side of which any light pallet may be used: any tool, emblematic of the subject, or that best accords with the dimensions of the back, is next to be used, beginning at the head of the book, and making each impression (if only one tool be used) centrical between the bands: the tool must bear equally every way, by working it a little backward and forward, and to the right and left: the tool must not be too long dwelt upon; and the larger it is, the heavier must be the im-pression, bearing scarcely at all on extremely small ones. The book is then to be lettered, and the gold to be rubbed off, as previously stated.

POLISHING.

The book having been gilt in the preceding way, is now to be polished.* On

^{*} The polishing iron must not be used on grained

every portion of the leather, and the sidepapers of half-bound books, the polishing iron must be applied: it is first to be heated, and cleared on rough calf; but eare must be taken that it be not too hot, or it will turn the glaire white, and deface the marbling. Before applying the iron, the cover should be rubbed over with a clean oil rag, when the edges are first to be polished, then the backs, and lastly, the sides or boards, passing the iron quickly over the whole, and not allowing it in the least to rest on any part of the leather or paper.

part of the leather or paper. The book being brought to a good polish, is now ready (if it suit the taste of the binder) for

BLIND TOOLING.

This makes a pretty contrast to the gold, and should not be done until the book is polished, otherwise the polishingiron will, in some degree, counteract the intended effect. The tools must be heated, eleared on rough calf, and applied in the

leathers ; instead of this, they must be rubbed well with a pièce of rough calf.

same way, as if intended for using on the gold. The next thing to be done, is

BURNISHING THE EDGES.

The book, or books, must be placed between boards, and screwed tight in the cutting-press; then with a dog's tooth, or agate, the fore-edge, and head and tail, must be briskly rubbed backwards and forwards, until brought to a fine polish, after which are to be pasted down the

END-PAPERS.

For extra books, and particularly such as have coloured or marbled linings, considerable neatness is required in pasting them down. Each board should be thrown back, and the paper worked in perfectly smooth and even at the joints of the boards; the paper should be allowed to dry with the boards thrown back, or the joint will never be well formed: a bad joint will, on re-opening the boards, after closing them, partly draw back the leaves of the book with them, and this will always be the case, unless the above directions be attended to. The next thing to be considered, is

 E_2

68 COWIE'S BOOKBINDER'S MANUAL.

TAPPING DOWN THE CORNERS.

There is usually a roughness left on the inner side of each corner of the boards, the inner side of each corner of the boards, partly produced by turning the leather in, and partly by the polishing-iron passing along the edges; this is to be remedied by tapping them down with the backing hammer, which, however, must be used very gently, or, in lieu of this, polished plates of tin are to be placed between the limings, and the same outside as far back linings, and the same outside, as far back as the joints of the boards, or graining as the joints of the boards, or graining boards are to be used, as the case may require, and the books to be screwed tight in the standing-press; when, after remaining a proper time, and being taken out, the cover should be rubbed over with a piece of rough calf, which will greatly add to its beauty. The book may now be considered as entirely finished.

VELLUM BINDING.

UNDER this head are comprised Memorandum and Account Books of every description; and though these are sometimes covered with rough calf, and other leather, and are by no means limited to vellum coverings, it is nevertheless generally denominated VELLUM BINDING. We shall describe this process in regular order, and under distinct heads, beginning first with

FOLDING.

There is less trouble here than in printed books; and it is only necessary to observe, that foolscap books must contain six sheets in a fold; but above that size, only four, unless the paper be thin, when the fold may contain six. The sheets, being thus arranged, must be knocked up even, and taken up to the standing-press, when, after remaining a short time, they are ready for

SEWING.

All end-papers to Account Books should

70 COWIE'S BOOKBINDER'S MANUAL.

consist of sheets from outside quires; and large books, such as folios and quartos, should have double end-papers; but for octavos, &c., single ones will be sufficient. These books must be sewn on slips of strong vellum; but small ones may be sewn on parchment, though vellum is al-ways preferable; the slips should be about an inch wide, and two inches and a half longer than the width of the back. Foolscap must be sewn on three slips; but for books above that size, the number must be increased; perhaps the best criterion for the number will be, by observing, that the slips may be about two inches apart, and at equal distances. About an inch of one end of each slip should be bent, so as to form a sort of foot: the fly-leaf sec-tion should now be placed on its side, and the bent portion of each slip placed under it: the sewing is then to be proceeded with in the same way as for printed books, with the exception that, greater strength being required for vellum books, they must be sewn through each fold, and with waxed thread. After the sewing is completed, the first ruled leaf at each end is to be pasted to the waste-paper: after thoroughly drying, the back is to be GLUED in the

usual way. When the back is dry, the next thing required is

CUTTING THE FORE-EDGE.

The directions given at page 27, equally apply here. We must, however, observe, that the cutting of the fore-edge is usually regulated by a pattern kept for the purpose; the head and tail is cut by measurement of inches;* but in respect to ruled books, considerable care is required not to plough off too much of the portion allowed for the pence and fractional parts. The next thing to be considered is

ROUNDING.

There is a slight variation between printed and stationery books in respect to rounding; the fore-edge of the latter must form a deeper hollow, and consequently a rounder back; but the process is precisely the same as described at page 30, especial care being taken not to start the folds, which may be avoided by using the hammer, and working the fingers, in a gentle and regular way. The book is then to be taken to the standing-press; after being

^{*} See the Appendix.

72 COWIE'S BOOKBINDER'S MANUAL.

well screwed down, it may be taken out. The next thing to be done is

CUTTING THE HEAD AND FOOT.

The observations made at pages 31 and 32 apply equally to cutting the head and foot of stationery books; the same may be said of what has been mentioned at page 47 of the next process, that of

MARBLING.

As previously observed, such books as are intended for marbling are usually sent to the marbler's, to be done agreeably either to pattern or fancy; but for those who have not this convenience (which must be the case with many country binders) we have given full directions in the Appendix. The book is afterwards ready for

HEAD-BANDING.

The head-bands must be worked on slips of vellum in the same way as described at page 48, so as to form a deep narrow, rather than a round band. The back should then be lined, between each slip of vellum, with strong canvas and glue, when it is to remain until dry. A slip of millboard must next be prepared, to form the

HOLLOW BACK.

The millboard is to be cut about a quarter of an inch wider than the back of the book; it is then to be glued on both sides; it should remain in this state about ten minutes; it is then to be laid on a sheet of paper; and a smooth roller* (the dimensions of the back of the book) is to be placed upon it: the whole is now to be worked backwards and forwards on the roller, which will give the millboard a half-circular shape: in this state it must be placed near the fire, until it becomes quite hard, or literally baked. Now, if the roller was the proper dimensions, and the slip correctly cut in width, it will be found exactly to correspond with the back of the book: a piece of canvas must now be cut sufficiently large to extend half the

^{*} For this purpose different sized rollers should be used; and a proper one being chosen for the size of the back, the millboard may be used so as to exactly meet round it; when proceeded with as above described, it may be slightly serewed in the press, and cut on the opposite side to the join of the board: by this means two hollow backs are made at one time.

74 COWIE'S BOOKBINDER'S MANUAL.

width of the board on one side of the book, to the same distance on the other side; this is to be glued on the boards, and over the back, which will materially strengthen the book, and hold the hollow back firmly on. It will now be necessary to cut, and paste on

THE BOARDS.

These must be cut with the ploughknife, and the squares ought to be rather larger in proportion than for printed books. For the binding we are describing, it is better to paste two thin boards together, leaving about one half side of the boards unpasted: they are then to be put into the press for about five minutes; and when taken out, the part left open is to be pasted, and the ends of the vellum on which the book is sewn to be slipt in the opening: the boards at the same time are to be properly adjusted, and must be distant from the back a quarter of an inch: the book must then have another pressing, after which it will be ready for

COVERING.

If the book be covered with calf, or

any other leather, it must be neatly pared all round, and pasted; and after remaining about ten minutes, it may be put on in the usual way, which will form a neat groove at the join of the boards: while in this state, it is to be well pressed. Calf covering should, when dry, be dressed with pumice-stone, and brushed well with a clothes'-brush. If the book is to be covered with vellum or parchment, the cover must be lined with cartridge or strong white paper, and put between paste-boards. The cover should be put on dry, and well rubbed with a foldingstick in the joints next the back: the boards are then to be pasted, and the cover pressed on them, when the book should be put into the standing-press: after it is supposed to be dry, it should be taken out, and the remaining part of the cover pasted, when, after soaking a little, it should be turned over, and the corners cut as neat as possible, when the book should again be put into the stand-ing-press; and, after being taken out, the cover must be washed with a sponge and paste-water.

SINGLE RUSSIA BANDS.—For additional strength to the book, bands of Russia

leather are sometimes drawn over the back, and worked on the boards, with vellum thongs. The back may be divided into seven equal parts, three of which should be occupied with the bands, viz. the centre, and half the first and second from each end: the thongs may be worked on in a diamond shape, or in any other fanciful way the binder may please. When the ends of the papers are pasted down, tins must be put in before placing the book in the standing-press, to prevent any impression from the vellum thongs appearing on the leaves of the book. DOUBLE RUSSIA BANDS.—For these,

DOUBLE RUSSIA BANDS.—For these, the back should be divided into five parts, one band occupying the centre portion, and reaching half-way on the boards: the other two bands are to be placed at each extremity of the back, and the entire depth of the boards, and worked on as above described.

FINISHING.

The lettering-piece is to be pared, put on, and gilt, as already described; but the roll for *rough calf*, is required to be made red hot, or it will not make sufficient, nor so lasting an impression, as when only moderately heated: of course the roll must be passed quickly over, not being allowed to rest for a moment on any part of the leather. For blind-tooling the covers, the tools should be sufficiently hot to leave a clear and rather dark impres-sion.—Previous to gilding *vellum*, the cover must be once glaired, and after being perfectly dry, the portion intended for the gold must be rubbed over with the oil-rag. The heat of the roll, or any other tool that may be used for wellum other tool that may be used for vellum, must be about equal to those used for finishing printed books. The roll must be worked firm and strong, to make a good impression. The end-papers are now to be pasted down, and the inner corners of each board to be gently tapped with the hammer, when the book may be considered as entirely finished.

APPENDIX.

COLOURS FOR BOOK-EDGES.

BROWN.

Boil equal portions of logwood and French berries in rain water; and, to give a darker shade to the colour, a little copperas may be added : when cool, it should be strained and bottled.

PURPLE.

Boil one ounce of powdered alum, four ounces of logwood chips, and a small piece of copperas, in a pint and a half of soft water, until reduced to a pint, when the liquid must be strained.

For immediate use, an excellent purple may be obtained from strong potash water and Brazil dust: if it should remain long unused, it will change to a brown.

RED.

Mix together four ounces of Brazil dust, and one ounce of powdered alum: boil them in half a pint of vinegar, and the same quantity of water, till reduced to half a pint: then strain it through a fine cotton cloth.

If, in addition to this liquid, the edges be sprinkled with brown and purple, it will form a pretty appearance.

BLUE.

Dissolve one ounce of finely powdered indigo in the same quantity of double oil of vitriol, into which throw a half a tea spoonful of spirit of salts.

This liquid should be kept in an open vessel, and remain at least a week before using: after reducing it with water, it will be found an excellent sprinkle.

GREEN.

Boil one ounce of French berries, and a small quantity of alum, in half a pint of soft water for half an hour.

This liquid should be strained through a piece of fine flannel, and should have a

80 cowie's bookbinder's manual.

small portion of the liquid blue added to it: it should then be put in a bottle, and well corked up.

ORANGE.

To one ounce of Brazil dust add half an ounce of French berries, bruised, and a small piece of alum; boil them in half a pint of soft water; strain the colour and bottle it for use.

This colour will have a pretty effect on the edges, if mixed with any others the fancy may point out.

GOLD SPRINKLE.

Put into a marble mortar half a book of gold leaf, and a quarter of an ounce of honey; work them well together, until they become very fine; add to this, and mix well together, a quarter of a pint of very clear water, which, when it has cleared, pour off, and add more, until the honey is extracted, and nothing but the gold remains. Then mix half a grain of corrosive sublimate with half a tea-spoonful of spirits of wine, and when dissolved, put the same, together with a small quantity of thick gum water to the gold, and the liquid may be bottled for use.

Previous to using the gold liquid, the bottle must be well shaken: if sprinkled in large or small spots over a green, purple, or blue ground, it will have a pretty effect: after sprinkling, the book should be enveloped in paper, to preserve the gold from being soiled.

FANCY COLOURING.

Mix whiting and water to a thick consistency; then, having screwed the book tight in the press, throw the mixture on the edges with a small brush, either in spots or streaks: when nearly dry, spot the edges with green, blue, and Brazil red; when quite dry, shake off the whiting, and brush the edge with a very soft brush. If a sprinkle of dark blue be thrown on immediately after the whiting, it will produce a beautiful shaded edge.

FANCY MARBLING.

Let the book be screwed tight in the press, and place on the edge rice or pearl barley in a regular manner; then sprinkle the edge with any dark colour, till the white paper be covered, when the rice may be shaken off. Various colours may be used for this purpose; and, previous to using the rice, the fore-edge may be coloured with yellow or red.

The preceding recipes, though tedious in preparation, are so excellent in themselves, that we thought it better not to omit them: they are, however, now generally superseded by mixtures of a more simple character, and which may, if required, be prepared for use in a few minutes. They consist of the following, which, if not already in powder, should be bruised till brought to that state, and then mixed with paste-water, into which must be thrown a few drops of sweet oil:

- 1. Spirit blue* (diluted with water).
- 2. Brown umber.
- 3. King's yellow.
- 4. Dutch pink (a yellow).
- 5. Spanish brown.
- 6. Vermilion.

* This can be purchased at any respectable stationer's, in small bottles.

MARBLING, &c. OF LEATHER.

The following four liquids are essential for several of the sprinkles and marbles hereafter to be described :—

Brown.—Dissolve a quarter of a pound of the best potash in a pint of rain water; when clear, it may be bottled for use.

Black.—Boil a quarter of a pound of copperas in a quart of soft water; when properly settled, it may be put into a bottle for use.

Vinegar Black.—Steep iron filings in vinegar, or stale beer, for about twenty hours; let them boil quickly on the fire, after which, when thoroughly settled, the liquid may be bottled for use.

Vitriol Water.—Mix two ounces of the best oil of vitriol with six ounces of water, and bottle it for use.

DARK SPRINKLE.

With a sponge and weak potash water wash the cover of the book, and place it, immediately afterwards, between wands, with the boards extended, and sprinkle it very dark and fine with the copperas water.

In addition to the above dark sprinkle, a sprinkle of the brown liquid and vitriol water will considerably improve the beauty of the cover.

RED SPOTS.

Mix, in a bottle, half a table spoonful of spirits of salts, one ounce of the best double aquafortis, a quarter of an ounce of green tin, and two ounces of rain water. The whole should remain about twenty hours previous to using. In addition to this mixture, a portion of aqua regia will be necessary. Let the cover of the book be first

Let the cover of the book be first blacked with copperas water, and, when dry, give it a coat of Brazil red: then mix together a portion of aqua regia and dry Brazil, and, when thoroughly settled, place the book between wands, and spot the cover over with the red liquid. When perfectly dry, the cover must be washed with a sponge and water.

YELLOW SPOTS.

First black the cover of the book, and, when perfectly dry, place it between wands: then mix a portion of aqua regia and turmeric together, and when thoroughly settled, throw on large or small yellow spots, as may suit the fancy.

RED AND YELLOW SPOTS.

First black the cover, then place the book between the wands, throw on the yellow spots, and, when quite dry, throw on small spots of the liquid red. Wash the cover with a piece of clean sponge and water: and take care not to mix more colours with the spirits than are absolutely wanted.

COMMON MARBLE.

Let the cover be first washed over with weak potash water, after which, it must have one coat of glaire; when perfectly dry, place the book between the wands, and with a brush, or a bunch of quills, throw on water in all directions, and immediately after (while the water is yet running on the covers), with other brushes sprinkle with copperas water and brown: after the marble has remained a few minutes, wash it with a clean sponge and water.

SPONGE MARBLE.

This is performed in the same way as the above method, with the exception that, instead of using brushes, the liquids are to be applied with pieces of sponge, which are to be dabbed on the cover in various directions, applying first the water, then immediately upon it the copperas water, and lastly the brown: when dry,* wash the cover with a clean sponge and water.

TREE MARBLE.

A marble may be formed somewhat to resemble a tree, by first washing and glairing the cover, and then bending the boards on each side, so as to form them

^{*} In all the recipes for marbling, mind that the colours have sufficient time to dry, as they are then likely to have their full effect, and show their brightness to more advantage.

into a slight semicircle. Sprinkle with water, copperas water, brown, and wash the cover (as directed for *common marble*), and it will be found that the bend in the boards has caused the liquids to run in a suitable direction for producing the intended effect.

ANOTHER MARBLE.

Wash the cover with rather strong potash water, and glaire it; when dry, place the book between wands, throw on water, vinegar black, and lastly a fine sprinkle of vitriol water, which will be a great improvement to the marble.

TRANSPARENT MARBLE.

Place the book between the wands, marble the boards with a tree on each centre, and put on each board an oval, made of a thin piece of paper, and bind it to the boards with pieces of lead. Black the cover on the outer parts of the ovals, and when thoroughly dry, go over the same with strong basil water: then throw on red spots, and when dry, take off the ovals; wash the portion of the cover where the red spots are with a piece

88 COWIE'S BOOKBINDER'S MANUAL.

of clean sponge and water. If the inside of the ovals be coloured with the following liquid, it will have a very pleasing effect:—Mix together spirits of wine and powdered turmeric, in the proportion of half an ounce of the former to half a table spoonful of the latter; put the liquid into a bottle, shake it well, and let it settle before using.—Give the ovals two coats of the liquid, with a camel's hairbrush; and when done, cork the bottle up tight, to prevent evaporation.

PURPLE MARBLE.

When the book is covered, and perfectly dry, rub the cover over with strong hot purple liquid (prepared as previously directed), two or three times. When dry, glaire the cover, and put the book between wands; with quills throw on water, and sprinkle it with strong vitriol water, which will produce bright red veins. After the colours are dry, they must be washed with a sponge and water.

RICE MARBLE.

With spirits of wine and turmeric (prepared as before mentioned) colour

the cover, put the book between wands, and throw on rice in a regular way, according to fancy: then throw on a neat sprinkle of copperas water, till the cover be nearly black; when dry, sprinkle the cover with red liquid (already described), or potash water, before the rice is thrown off.

EGYPTIAN MARBLE.

Previous to covering the book, colour the leather with Scott's liquid blue,* and immerge it in water, to extract the spirit: after remaining in the water about half an hour, take it out, and place it between pieces of brown paper, till nearly dry: then cover the book, and place it a small distance from the fire, till thoroughly dry, when it must be glaired. Place the book between wands, and throw on it potash water, with a bunch of quills, and lastly, a very fine sprinkle of the vinegar black. When the book is nearly dry, it must be washed with a sponge and water.

STONE MARBLE.

Glaire the cover in the usual way, and

^{*} To be purchased at any colour shop.

90 COWIE'S BOOKBINDER'S MANUAL.

when thoroughly dry, put the book into the cutting-press, with the boards somewhat sloping, so that the colours may run gently down. With a brush, throw on copperas water rather freely, and dip a piece of sponge into some strong potash water, and press it out on different parts of the back, so that the colours may run gently down each side; where the brown has left a vacancy, vitriol water should be applied in the same manner. After the colours are perfectly dry, wash the cover with a clean sponge and water.

GREEN MARBLE.

In addition to the preceding marble, use Scott's liquid blue in the same manner as the other colours, and previous to finishing the marble with vitriol water.

WAINSCOT MARBLE.

Colour the cover with the strong brown liquid already mentioned, and glaire it; then place the book between wands, with the boards flat and even. Throw on water till every part of the boards be covered: then take a sufficient portion of copperas water in the brush, and dash it freely on the boards; do the same with potash water; and finally, throw on a bold sprinkle of vitriol water.—This is a beautiful marble, if done with attention and care.

ANOTHER MARBLE.

First black the cover with copperas water, and when dry, give it two coats of strong Brazil water. Mix whiting and water to rather a thick consistency, and throw it on the cover in spots or streaks, and let it remain till dry; then give the cover a bold sprinkle of the liquid red already mentioned.

CHINESE MARBLE.

First colour the cover with a dark brown, and then place the book between wands; use whiting and water as above directed, and let it remain till dry. Sprinkle the cover with liquid blue, after which, throw on large spots of the liquid red. When the colours are perfectly dry, wash off the whiting.

RED MARBLE.

Previous to covering the book, the

cover must be immerged for near three quarters of an hour in weak lime water, and afterwards dried between sheets of and afterwards dried between sheets of brown paper. Then, mix half an ounce of Brazil dust, half a tea spoonful of pow-dered cochineal, a small piece of alum, and a quarter of a pint of the best vine-gar : boil these on a slow fire, till the whole produce a bright red. While this liquid is hot, colour the cover two or three times over, and then immerge it in water, in which a piece of alum has been previously dissolved. Now draw the cover on and let it be perfectly dry: then previously dissolved. Now draw the cover on, and let it be perfectly dry; then glaire it, and put the book between wands; throw on potash water with quills, and sprinkle it with vinegar black. If a few drops of aqua regia be added to the liquid previous to covering the cover, it will give it a much brighter and more permanent red.

JAPAN MARBLE.

Give the cover one coat of potash water, two of Brazil wash, and glaire it: then place the book between wands in such a position that the boards slope a little: dash on copperas water; then having a piece of sponge full of the red liquid in readiness, press out on the back and on different parts large drops, which should run down on each board, and will by this means produce a fine shaded red. After the cover is perfectly dry, it should be washed over two or three times with Brazil wash, which will give the colour a brighter appearance.

COLOURS FOR LEATHER.

It sometimes occurs, that books which are marbled on the sides, have their backs of one entire colour: when such is the case, previous to marbling, &c., a piece of thin paste-board must be placed on the back, to prevent any of the colours affecting it. The following liquids will be found to answer every purpose for colouring :—

Brown.—A quarter of a pound of potash dissolved in a pint of rain water; when settled, bottle it for use.

Blue.—Colour first with copperas water, and afterwards give two coats of liquid blue.

Green.—Colour twice with Scott's liquid blue, and when dry, wash the leather three or four times with a clean sponge and water. *Purple.*—Rub on some strong purple liquid (already described) near the fire, three or four times at least, and when dry, wash well with clear water.

Lead colour.—Colour well with copperas water, or copperas and potash water mixed.

MARBLING PAPER, &c.

WATER MARBLING.

There are several sorts of marbled paper; but the principal difference lies in the forms in which the colours are laid on the ground, some being disposed in whirls or circumvolutions, some in jagged lengths, and others only in spots of a roundish or oval figure. The general method of managing each kind is, never-theless, the same. The peculiar apparatus necessary for this purpose, is, a trough for the floating of the colours, a quill and comb for disposing them in the figure usually chosen, and a burnishing-stone for polishing the paper. The trough may be of any kind of wood, and must be somewhat larger than the sheets of paper, for marbling of which it is to be employed; but the sides of it should only rise about two inches above the bottom. The comb may also be of wood, and about five inches in length, but should have brass teeth, which may be about two inches long, and placed at about a quarter of an inch distance from each other.

The burnishing-stone may be of jasper or agate; but as those stones are very dear when of sufficient largeness, marble or glass may be used, provided their surface be polished to a greater degree of smoothness. These implements being prepared, make a solution of gumtragacanth, or, as it is commonly called, gum*dragon*, by putting a sufficient proportion of the gum (which should be white, and clear from all foulness) into clean water, and let it remain there a day or two, frequently breaking the lumps, and stirring it till the whole appear dissolved, and equally mixed with the water: the consistence of the solution should be nearly that of strong gum water used in miniature painting; if it appear thicker, add water to it; if thinner, more of the gum. When the solution is thus brought to a due state, pass it through a linen cloth, and then put it into the trough, when it will be ready to receive the colours: these are as follow :--- For Red, carmine, lake, rose pink, and vermilion; but the two last are too hard and glaring, unless they be mixed

with rose pink, or lake, to bring them to a softer east; and, with respect to the carmine and lake, they are too dear for common purposes—for *Yellow*, king's yellow, or Dutch pink and yellow ochre may be employed—for *Blue*, Prussian blue and verditer may be used—for *Green*, verdi-gris, a mixture of Dutch pink and Prussian blue or verditer, in different proportions—for Orange, orange lake, or a mixture of vermillion, or red lead, with Dutch pink—for Purple, rose pink and Prussian blue—for White, flake white for Black, lamp black-for Brown, black and yellow. Having these colours in readiness, grind them on a marble slab with spirit of wine, till they are very fine; and at the time of using them, add a little fish gall, or in default of it, the gall of a beast, by grinding them over again with it. The proper proportion of the gall must be found by trying them: for there must be just so much as will suffer the spots of colour, when sprinkled on the solution of the gum tragacauth, to join together, without intermixing or running into each other. When every-thing is thus prepared, pour into the trough the solution of the gum traga-

canth; then, having the colours intended to be used in separate pots, with a pencil or brush appropriated to each, sprinkle them on the surface of the solution (beginning with the darkest colours first) by shaking the pencil or brush charged with the particular colour over it, till the surface be wholly covered; when the marble tace be whony covered; when the marche is proposed to be of a simple form, nothing more is necessary; but where whirls or snail-shell figures are wanted, they must be made by means of a quill, which must be put among the spots to turn them about, till the effect be produced: jagged lengths (or what is termed *comb-marble*) must be made by means of the comb above described, which must be passed through the colours from one end of the trough to the other, and will give them that appearance; but, if they be desired to be pointed both ways, the comb must be again passed through the trough in a contrary direction; or, if some of the whirls or snail-shell figures be required to be added, they may yet be made by means before directed: indeed, by a little contrivance, numerous forms may be given to the colours. The paper should be previously prepared for receiving the

colours, by dipping it over night in water, and laying the sheets on each other with a weight over them. The whole being thus ready, hold the paper by two corners, and lay it in the most gentle and even manner on the solution covered with the colours, and softly press it with the hand, that it may bear everywhere on the solution: after which, raise it, and take it off with the same care, and then hang it to dry across a proper card, subtended near at hand for that purpose; and in that state let it continue till it be perfectly dry. It then remains only to give the paper a proper polish; in order to which, first rub it with a little soap, and then smooth it with glass polishers, such as are used for linear and called calender classes: used for linen, and called calender-glasses : after which, again rub it with a burnisher of jasper or agate; or, in default of these, with glass ground to the highest polish; for on the perfect polish of the paper depends, in a great measure, its beauty and value. Gold or silver powders may be used, where desired, along with the colour, and require only the same treatment as them, except that they must be first tempered with gun-water. In marbling book-edges, tie the books tight between

G 2

100 cowie's bookbinder's manual.

cutting-boards: having done this, only dip the edges in, on the top of the water and colours, very lightly; which done, take them off, and the plain impression of the colours in mixture will be upon the leaves, along the head and tail, as well as the fore-edge, in like manner. If some clear water be dashed upon the edges immediately after marbling, it will give the colours a clearer appearance, and, what is termed set them: nor need the superfluous colours in the tub be wasted; for they may be again intermixed, and a sheet of paper dipped in as before described, which, though imperfect in some parts, will serve for common purposes.

SOAP MARBLING.

The discovery of this method of marbling is of a nuch more recent date than the preceding, and the process is exceedingly simple; it will be found to answer every purpose equally well with water marble, and has been successfully used for the edges of stationery books. Precisely the same apparatus, in every respect, as used for water marbling, is required for this process: the only difference between the two

methods consists in preparing the colours, and in throwing them on the surface of hard clear water instead of a solution of gum-dragon. The colours, instead of being ground with gall and spirit of wine, must now be ground with water, and brown and white scap. Any colours of a light substance, and those already mentioned, are as well suited to this marble as the preceding, but care must be taken to grind the ground-colour, that is, the colour thrown on first, with brown soap, and that used for the veins with white soap, observing always to throw on the dark colours first. For instance, if Prussian blue be intended for a ground-colour, it must be ground with brown soap and water, on a marble slab, until it contain a consistency sufficiently pliable to be thrown on with a pencil or brush. If king's yellow be ground with white soap, in the same way as the preceding, and thrown over the body of Prussian blue, the former will run into veins, while the latter will form a sort of ground; and the same may be observed of all colours, provided the one be ground with brown soap, and the other with white; we will, however, state a few particular colours:

102 COWIE'S BOOKBINDER'S MANUAL.

—If green be intended for a groundcolour, it must also be ground with brown soap, and may be united with king's yellow, ground with white soap, which will cause it to run into veins. Lake may also be used for a ground-colour, ground with brown soap, and Prussian blue ground with white soap. Brown umber (ground with brown soap) will also form a good ground-colour, and flake white, ground with white soap, the veins.

VEIN MARBLING.

The following, though not generally adopted, will be found an excellent method of forming a beautiful veined marble upon paper:—Make a middling thick size, or paste, of flour and water, to which add a little powdered alum, and then boil it in the same manner as paste. Put some of the size, when cool, into several pots, and mix with it any of the colours (ground with water) already mentioned. Then, with brushes (having one for each pot) spread a quantity of the colours selected, very even, on a flat piece of marble, or other smooth stone, or on a smooth board, or a table, according to the length and width of the sheet of paper. On the coloured size thus spread, lay a strong plate of glass, or one of tin or copper, or a thin piece of board, pressing the plate (of whatever sort) gently with the hand on every part. Raise the plate, by lifting up one end, and it will be found veined in every direction, by the adhesiveness of the size; immediately lay the plate thus prepared on the paper, and with the hand again gently press on every part of the plate, which will vein or marble the paper with the same figures as were on the sized plate. If the plate of glass (which is preferable, but exceptionable on account of its brittleness) be not pressed too hard, a second impression, with a beautiful sort of smaller sized veins, may be had from the first colouring; and thus for as many different colours as are desired on the surface, there needs only a repetition of surface, there needs only a repetition of surface, there needs only a repetition of the size containing them. A neat tor-toise-shell appearance, and a great variety of expressive figures, may be produced this way, as also by various actions of the fingers upon the plate, before the size loses its moisture, and likewise by many times gently folding the paper.

4

SPLASII PAPER.

The paper intended for this purpose, previous to applying the colours, must be sprinkled with alum water, in the propor-tion of a quarter of a pound of the one, dissolved in one quart of the other. The paper must then be placed between boards, and screwed tight in the standing press, or heavy weights laid on the upper board, in order that the paper may be equalized in dampness; it should remain in this state about six hours. The colours intended for the sprinkle are to be steeped twelve hours in their respective quantities of vinegar and water, into which is to be thrown a small quantity of bruised alum; it is then to be boiled over a slow fire, and afterwards strained through a piece of fine flannel, or cotton cloth, till quite pure. The following colours being pre-pared as above described, will be ready for throwing on the paper.

Yellow.—A quarter of a pound of bruised French berries, half a pint of vinegar, and the same quantity of water.

vinegar, and the same quantity of water. $Dark \ red.$ A quarter of a pound of Brazil dust, half a pint of vinegar, and the same quantity of water. Bright red.—In addition to the preceding, add, previous to colouring, a few drops of aqua regia.

Green. A quarter of a pound of bruised French berries, one ounce of liquid blue, half a pint of vinegar, and the same quantity of water.

quantity of water. *Purple.*—A pound of logwood chip, with a pint of vinegar, and the same quantity of water.

quantity of water. Brown.—Mix together half an ounce of Brazil dust with one ounce of strong potash water; this, however, is not to be boiled, but should remain till the colour change from a purple to a light brown.

We should not enter into a description of the various splashes, but leave them to the fancy of the binder. Good taste and a little practice, will enable him to form patterns of some beauty and in considerable variety. We must here observe, that the light colours should be thrown on first; and that the paper, after splashing, is to be burnished in precisely the same way as marbled paper. We will give two splashes out of the number that they may be formed from the colours above given:—

PURPLE SPLASH.

Small stones must be placed at a little distance from each other, and the sheet of paper laid upon them; then with a brush the purple liquid should be thrown on in large or small splashes, as may best suit the fancy.

TORTOISE-SHELL.

Black ink should first be splashed on the paper, then red, and finally yellow spots where the paper is white.

MISCELLANEOUS RECIPES.

GILDING PAPER, &c.

It will first be requisite to prepare the gold size; this is made by adding the white of an egg to double the quantity of water, and a tablespoonful of bullock's blood, which must be taken from the top after it has settled a little: they must be well beat together for near an hour, and the whole must stand two days before using. The paper should be well pressed, and after being cut, made very smooth with a piece of tempered spring, called clock-spring, about four inches long, and from two to two-and-a-half inches wide, rounded at each end, or a steel scraper. The gilding boards are now to be put even on each side of the paper, and to be lowered into the cutting-press, level with the cheeks, and to be screwed as tight as possible, then to be sponged over with yellow ochre, and the size mixed together, and must afterwards be rubbed with paper shavings, until quite dry, when it

must be well burnished with the tooth. The gold leaf is now to be cut into strips, after which, a piece of paper, previously rubbed on the forehead, should be laid gently on the gold, which will adhere to the paper, and in the same way more must be added, until there be sufficient to cover the entire edge. With a camel's hairbrush the edge must now be thickly covered with the size, and immediately after the paper and gold must be held with the fingers of each hand, and laid gently on the edge. When the whole is covered, the press may be a little raised at one end, which will allow the size to run from under the gold. The gold should be dried gradually, and if possible, in the sun; the edges, when perfectly dry, are ready for burnishing; but to ascertain this, the gold should be breathed on, and if it immediately become bright, it may be burnished with safety; for this purpose a dog's tooth, or agate stone, should be used; the latter, however, is preferable.

TO BLACK COVERS.

Steep iron filings in vinegar for twentyfour hours, give it a quick boil on the fire, and, when settled, strain it. Having this in readiness, sponge the covers well with chamber-lye and potash water; black them over once with copperas, and then rub the vinegar (prepared as above directed) once over.

TO COLOUR VELLUM GREEN.

Dissolve half an ounce of verdigris in half an ounce of the best white wine vinegar, pour the mixture into a bottle, and place it near a fire for four or five days, shaking the bottle half a dozen times each day. Wash the vellum over with rather weak potash water, and colour it over three or four times with the green liquid.

RED INK.

Mix together a quarter of a pound of Brazil dust, a quarter of an ounce of cochineal, a small piece of lump sugar, and two quarts of vinegar: let these steep ten hours, and afterwards boil them on a slow fire, till of a good red colour. When settled, strain the ink through a piece of fine cotton, and bottle it for use.

BLUE INK.

A good blue ink may be obtained by diffusing Prussian blue or indigo through strong gum-water. The common watercolour cakes, diffused also in gum-water, will produce a tolerably good blue for common purposes: but Dyer's blue, diluted with water, is preferable to either.

SLATE PAPER.

Boil water and glue to a tolerably good consistency; while on the fire, throw lamp black and finely-powdered emery into it. Then, with a fine brush, give the paper two coats of the liquid.

PASTE.

Mix flour and water, in the proportion of a quarter of a pound of the one to a quart of the other; stir this well together, and throw into it a piece of alum, about the size of a nut: let it boil a short time, and, when cold, it will be fit for use. This proportion will produce a thick paste for leather; but, when used for paper, it must be diluted with water, which should also be poured on the paste unused, as that will tend to preserve it.

A SCALE OF DIMENSIONS FOR CUTTING BOOKS IN VELLUM BINDING.

[N.B.--In this TABLE the Depth of the Book is given, and not the width, as that is usually regulated by pattern; in all cases leaving (in ruled books) sufficient margin for the pence and fractional parts.]

SIZE OF BOOKS.					Length in inches.
BROAD OCTAVOS Foolscap .					6
Demy					7
Medium					8
Royal and Super Royal					9
OBLONG OCTAVOS Foolscap .					3
Demy					$4\frac{1}{2}$
Medium					5
Royal and Super Royal					6
BROAD QUARTOS.—Foolscap					73
Demy					9
Medium					10
Royal					11
Super Royal		•			$12\frac{3}{4}$
Long Quartos,-Foolscap					$12\frac{1}{2}$
Demy					145
Medium					165
Royal and Super Royal					181
Oblong Quartos.—Foolscap					6
Demy					7
Medium					8
Royal and Super Royal				•	9
BROAD FOLIOS.—Foolscap					123
Demy				•	145
Medinm	•				161
Royal and Super Royal		•			185
Imperial	•				20 <u>‡</u>
Long Folios.—Foolscap				•	15
Demy					181
Medium					20
Royal and Super Royal					22

A TABLE OF TRADE CHARGES

f the inding	CI	oth.	Pl	Plain.		Gilt.		Plain.		ilt.
Denomination of the various styles of Binding	Bonud in cloth, let- tered on back,		Half bound Calt, fil- leted and lettered on back.		Half bound Calf,		Half bound Calf, marbled edges.		Half bound Calf extra marbled edges, ele- gant gilt back.	
Columns		1		2		3		<u>4</u>		5
	<i>s</i> .	d.	s.	d.	<i>s</i> .	<i>d</i> .	s.	<i>d</i> .	<i>s</i> .	d.
48mo, 32mo, and 24mo	0	10	1	0	1	3	1	3	1	5
18mo	0	11	l	1	1	5	1	4	1	7
12mo	0	11	1	3	1	7	1	6	1	9
Royal 12mo	1	0	1	5	1	8	1	7	1	11
Demy 8vo .	1	3	1	7	1	9	1	11	2	1
Royal 8vo	1	6	2	0	2	1	2	1	2	6
Imperial Svo	1	7	2	3	2	6	2	9	3	3
Demy 4to	1	9	3	0	3	9	3	6	4	3
Royal 4to	2	3	3	9	4	0	4	3	4	9
Demy folio .	2	7	4	3	4	6	4	9	5	3
Medium fol.	2	9	4	6	5	0	5	3	6	0
Royal folio .	3	0	5	0	6	3	6	3	7	3

* Competition has entirely set aside the Binders' Price Book: it is now useless; and to quote from that, were only to mislead. The above prices may be looked upon as a fair average: they were handed to us in a *printed form*, and

THE VARIOUS BINDINGS.*

'lain.	Gilt.	Plain.	Gilt.	Eztra.	Plain.	Gilt.
lf bound furkey forocco harbled ges, gold eon side.	Moroceo marbled edges, gold line on side	Whole bound Calf, neat.	Whole bound Calf, gilt back.	bound Calf, mar-		Whole bound Morocco, best man- ner, ele- gantly gilt.
6	7	8	9	10	11	12
s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
15	17	18	$2 \ 1$	25	3	4 6
1 7	1 9	1 10	2 3	2 7	3 3	4 9
19	2 0	2 2	2 7	3 1	4 0	56
1 11	2 3	2 6	2 11	3 3	4 6	6 6
2 1	2 5	2 10	3 3	38	59	8 3
26	3 1	3 6	4 1	4 8	7 3	9 3
33	3 11	4 0	4 9	5 2	8 3	11 9
4 0	4 9	4 6	5 3	5 9	99	14 9
4 6	6 0	6 0	79	8 6	13 3	17 9
59	6 6	7 6	8 7	9 11	14 9	20 9
69	79	9 0	11 3	11 11	17 3	23 9
8 3	9 3	11 0	12 3	15 5	18 3	29 9

those adopted by a highly respectable house in the trade: ry binder, of course, is free to amend them, either by *addition*, *reduction*; but we feel satisfied that the variation, either y, will be trifling.

Description of Work.	500 Pages,	From about 600 Pages d upwards,•
48mo	$\frac{1}{2}d$, per vol. † 1a	. per vol.†
32mo	$\frac{1}{2}d.$,, 10	l. "
24mo	$\frac{1}{2}d.$, 10	l. ,,
18mo	$\frac{1}{2}d.$,, 1a	ł. "
12mo	$\frac{1}{2}d.$,, 1a	l. ,,
Royal 12mo	$\frac{1}{2}d.$,, 16	l. ,,
Demy 8vo	$\frac{3}{4}d.$, 14	d. ,,
Royal 8vo	1d. ,, 11	.d. ,,
Imperial 8vo	$1\frac{1}{4}d.$, $1\frac{3}{4}$	d. "
Demy 4to	$1\frac{1}{2}d.$, $2a$	l. ,,
Royal 4to	2d. ,, 3a	<i>l</i> . ,,
Demy folio	3d. " 40	l. ,,
Medium folio	3d. ,, 4a	l . ,,
Royal folio	4d. ,, 5a	ł. "

CHARGE FOR MACHINE ROLLING.

* Up to, perhaps, 500 or 600 pages may be looked upon as the ordinary standard for the first charge; and 600, and upwards, as constituting the second: the exact quantity has never been, nor can easily be, defined.

† The charges here given are for single volumes; but on a dozen and upwards there is usually a deduction of from 25 to 30 per cent.

CHARGES FOR FOLDING, SEWING, AND STITCHING.

Denomina	tion of	Folding per 100.*	Sewing per 100.*						
Eighteens	-	-	-	$1\frac{1}{2}d.\dagger$	2 <i>d</i> .				
Twelves	-	-	-	$1rac{1}{2}d.$ †	2d.				
Octavo -	-	-	-	1 <i>d</i> .‡	2d.				
Quarto	-	-	-	1 <i>d</i> .‡	2d.				
Folio	-			2d.	3 <i>d</i> .				
	Stite	hing, 2	d. per	100.*					

* This work is performed upon what is termed the *give* and *take* system; that is, 50 are charged one-half; but all under that number are either counted onwards with works of a similar description, or lost to the party employed: whilst, on the other hand, the number between 50 and 100 is considered as completing the latter quantity.

† When cut up, 2d. \ddagger If extra, $1\frac{1}{2}d$. || If extra, 3d.

CHARGES TO THE PUBLIC FOR VARIOUS BINDINGS.

It is not intended, in the following List, to enter into the minute charges of bindings of every description; but care has been taken to form them upon a prin-ciple of protection to the Binder, and of fairness to the public: great accuracy, however, in such intricate calculations must be considered as nearly impossible; for it not unfrequently occurs, that the Binder cannot fix the precise charge until he has ascertained the labour and expense by the completion of the volume. Indeed, to the eye of a common ob-server, there may be no difference between a volume which has occupied five days in finishing, and one that has occupied only so many hours. The charge of a volume of the same binding also depends upon the number of sheets; for a book consist-ing of twenty sheets, must evidently con-

ing of twenty sheets, nust evidently con-sume more leather, and in several ways be more expensive than one consisting of only ten; nevertheless, we will endeavour to form a sort of average for the greater

variety of bindings, making the calculations on sheets, and presuming each respective volume to contain about the following proportions:—

$24 \mathrm{mo}$	• • •	•••	• • •	360 p	ages.
$18 \mathrm{mo}$	•••	•••		350	
$12 \mathrm{mo}$	•••	•••	•••	450	do.
8 vo			•••	500	do.
Royal			•••	600	do.
Demy	4to.	• • •	• • •	700	do.
Demy	Folic)	• • •	800	do.

Books published in numbers are generally charged more for, according to the trouble, as they are generally very badly folded in the first place, and most commonly much ill-used before they are sent to bind. •

MOROCCO.*

Note.—A fillet is a line of gold thus _____, if it is more than one line it is called a two-lined fillet, &c.

					Singl Line		Gi	lt ba	ck.‡	po.		ed and ek.§
Demy	32mo		•	£	s. 5	d. 3	£	s. 5	<i>d.</i> 9	£	s. 6	<i>d.</i> 3
	18mo				5	9		6	3		6	10
	12mo				6	10		7	6		8	2
	8 v o .				12	0		12	8		13	8
	4to .	·	•	1	6	0	1	7	6	1	10	0
	Folio		•	2	5	0	2	8	0	2	13	0

* Morocco Books always have gilt edges.

+ Morocco single lines —— to have neat coloured paper lining, silk head-band; to have a line of gold across the back, round the sides, edges of boards, and insides.

[±] Same as lines in every respect, except the back, which is to be ornamented.

 \S The sides to be ornamented with gold ; in other respects as before.

RUSSIA.

When done in the same way as Morocco, is the same price. Marbled edges, instead of gilt edges, is the only difference.

CALF.

Note.—Super Extra is not put down here, as it must be charged according to the quantity of work.

Half-calf to be finished the same as whole-calf at the back, whether lettered or gilt.

Whole-sheep the same as half-calf.

Half-Russia the same as whole-calf.

			Calf lettered*	Calf gilt.†	Calf half extra.‡		Half calf lettered.	Half calf gilt.
32mo			£ s. d. 1 9	£ s. d. 2 0				£ s. d. 1 8
18mo			2 0	2 4	30	36	16	1 10
12mo		•	26	211	36	4 0	18	2 1
8vo .			34	40	4 10	58	2 2	28
4to .			8 0	90	11 3	12 6	6 0	70
Folio .	•	•	16 0	18 6	136	1 8 0	11 0	13 6

* To have sprinkled edges, cotton headband, lettered with lines of gold across the back, and rolled in gold round the edges of the board.

† Same as preceding in every respect except the back, which is to be ornamented with gold.

[‡] To have gilt back, band, marble leaves, and line of gold round sides.

§ The same, and rolled insides.

ROAN.

NOTE.—We have not put down any distinct charges for Roan, as it is usually about the same as calf lettered.

SHEEP

Is seldom used, except for School Books, and when it is, it is usually Sheep lettered, which is the same as half-ealf lettered.

		Common.*		Ext	Extra.†		Canvas Backs.		iole vas.
Demy 32m).	s.	<i>d.</i> 5	8.	d. 6	<i>s</i> .	d. 8	s.	<i>d</i> . 10
18m).		5		6		9	1	0
12m	э.		6		7		10	1	2
8 v o			7		9	1	0	1	6
4to		1	6	2	0	2	-1	3	0
Folic).	-4	0	5	6	6	0	6	8

BOARDS.

* Common boards usually have blue paper sides.

[†] Extra boards are better done throughout, and are most commonly covered in drab coloured paper, back and sides.

A SCALE OF DIMENSIONS FOR CUTTING IN BOARDS.

[N.B.—The Dimensions given in this TABLE may be considered a general standard for the squares of all BOARDS, from Eighteens to Folio, the book itself being cut something under.]

SIZE OF WORK.	Length in inches.	Breadth in inch es.
EIGHTEENS.—Crown . Demy . . Medium . . Royal . . TweLves.—Demy . . Medium . . Royal . . OCTAVOS.—Foolscap . . OCTAVOS.—Foolscap . . Demy . . Copy . . Demy . . QUARTOS.—Foolscap . . Crown . . Copy . . Demy . . Medium . . Royal . . Copy . . Demy . . Medium . . Medium . . Royal . . <td>$\begin{array}{c} 5 & 5 \\ 5 & 5 \\ 5 & 5 \\ 6 \\ 7 \\ 7 \\ 7 \\ 7 \\ 6 \\ 7 \\ 7 \\ 7 \\ 8 \\ 8 \\ 9 \\ 10 \\ 7 \\ 9 \\ 9 \\ 10 \\ 11 \\ 12 \\ 14 \\ 12 \\ 12 \\ 12 \\ 12 \\ 12$</td> <td>3333344444455556667778891799789789789789789789789789</td>	$\begin{array}{c} 5 & 5 \\ 5 & 5 \\ 5 & 5 \\ 6 \\ 7 \\ 7 \\ 7 \\ 7 \\ 6 \\ 7 \\ 7 \\ 7 \\ 8 \\ 8 \\ 9 \\ 10 \\ 7 \\ 9 \\ 9 \\ 10 \\ 11 \\ 12 \\ 14 \\ 12 \\ 12 \\ 12 \\ 12 \\ 12$	3333344444455556667778891799789789789789789789789789

TABLE OF WEIGHT AND SIZE OF PAPERS.

WRITING, DRAWING, AND PRINTING PAPERS.

[Note.—This TABLE applies more to the *Fender* than the *Manufacturer*; but as both are occasionally combined, we have thought it advisable to give it a place in this work.—From time to time the Dnty on Paper has undergone a considerable change; it is now uniform, and has been fixed at *three-halfpence* per pound.]

R stands for Ream-B for Bundle.

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TABLE OF WEIGHT, ETC.

WRITING, DRAWING, AND PRINTING PAPERS-continued.

Names of Papers.	Weight.	Dimensions.
Eagle Grand Elephant Fan Large Small Foolscap Imperial Writing Plate Littress Medium Writing	b. 120 R 40 R 38 R 19 R 8 R 15 R 80 R 80 R 17 R 34 R 44 B	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
Post, Thick Large Thin Large Thick Thin Extra Thin Small Pott, Fine Second Double Royal Writing Plate	21 R 16 R 19 R 13 R 8 R 10 R 10 R 9 R 36 B 45 R 46 R	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
Inferior Long Super Writing Printing COLOURED AND WHITED Blue Demy Blotting	50 B 45 R 54 R 56 B BROWN P. 36 B 36 B	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
Crown Single - Blue Double Crown - Royal Couples	28 B 46 B 50 B 20 B	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$

TABLE OF WEIGHT, ETC.

COLOURED AND WHITED BROWN PAPERS-continued.

Names of Papers.	Weight.	Dimensions.
Double 2 Pound 2 Pound Single - Lumber Hand Middle Hand Double - Purple Elephant Purple Royal Royal Hand Thick - Hand Small Hand Sugar Blue Sugar Blue Demy Size - Crown Size	 lb. 36 B 18 B 38 B 32 B 60 B 26 R 45 B 24 B 48 B 150 R 112 R 70 R 50 R 	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
WRAPPING P	APERS.	
Bag Cap Four Pound Double Four Pound Pound and Half Pound { Couples Havin Cap Imperial Cap Small Cap Small 2 Pound Brown -	50 R 40 R 80 R 24 R 56 R 90 R 36 R 36 R 30 B	$\begin{array}{cccccccccccccccccccccccccccccccccccc$

TABLES OF DIMENSIONS, WEIGHT, ETC., OF MILLBOARD,

WITH ITS APPLICABILITY TO VARIOUS BINDINGS.

TABLE I.

Prices, Numbering, and Dimensions of MILLBOARD, with the Quantity contained in a Hundred Weight.

[[]The x and xx adjoined to the figures in the second column, express the mark of boards of various substances; thus, a double cross eightpenny] is rather thicker than a single cross eightpenny.]

NAMES OF BOARDS.	Marked in Chalk.	Quantity in a cwt.	Length in inches	Breadth in inches.
POT. Sixpenny Sevenpenny Eightpenny, thin . ————————————————————————————————————	P. 6 7 8 x8 x	$ \begin{array}{c} 257\\ 201\\ 179\\ 127\\ 100\\ 80 \end{array} $]74	141
FOOLSCAP. Sixpenny Sevenpenny Eightpenny, thin . common thick . Tenpenny	F.C. 6 7 8 x8 x8 x	$254 \\ 207 \\ 151 \\ 123 \\ 97 \\ 70 \end{bmatrix}$	$18\frac{1}{2}$	141
CROWN. Sixpenny Sevenpenny Eightpenny, thin . common thick . Tenpenny	C. 6 7 8 x8 x8 xx8 xx8 xx8	$\begin{array}{c} 224 \\ 173 \\ 148 \\ 104 \\ 77 \\ 57 \end{array}$	$20\frac{1}{4}$	$16\frac{1}{4}$

NAMES OF BOARDS.	Marked in Chalk.	Quantity in a cwt.	Length in inches.	Breadth in inches.
SHORT. Sixpenny Sevenpenny Eightpenny, thin . ————————————————————————————————————	$ \begin{array}{c} \hline & 7 \\ \hline & 8 \\ \hline & x8 \\ \hline & x8 \\ \hline & x8 \end{array} $	$\begin{array}{c} 233 \\ 183 \\ 131 \\ 95 \\ 72 \\ 52 \end{array}$	21	17
MIDDLE. Sixpenny Sevenpenny Eightpenny, thin . common thick . Tenpenny	M. 6 — 7 — 8 — x8 — x8 — x8 — x	$ \begin{array}{c} 191\\162\\114\\86\\60\\50\\\end{array}\right) $	22 ¹ / ₂	18 <u>1</u>
LARGE. Sixpenny Sevenpenny Eightpenny, thin . — common — thick . Tenpenny	L. 6 7 8 x8 x8 xx8 xx8 xx8	$ \begin{array}{c} 172\\ 120\\ 110\\ 83\\ 64\\ 52 \end{array} $	24	19
SMALL HALF ROYAL. Sevenpenny Eightpenny, thin . 	S.H.R. 7 8 8 8 8 8 8 8 8 8 8 8 8 8	$ \begin{bmatrix} 197 \\ 181 \\ 139 \\ 84 \\ 70 \end{bmatrix} $	20 <u>1</u>	13
LARGE HALF ROYAL. Sevenpenny Eightpenny, thin . common thick . Tenpenny	L. H. R. 7 	$ \begin{bmatrix} 186 \\ 147 \\ 108 \\ 84 \\ 62 \end{bmatrix} $	211	131

TABLE 1.-continued.

NAMES OF BOARDS.	Marked in Chalk.	Quantity in a cwt.	Length in inches.	Breadth in inches.
SMALL ROYAL. Sevenpenny . Eightpenny, thin .	S.R. 7 	$egin{array}{c} 122 \ 97 \ 70 \ 58 \ 38 \end{array}$	25킄	193
LARGE ROYAL. Sevenpenny . Eightpenny, thin . common thick . Tenpenny .	L. R. 7 	$ \begin{bmatrix} 131 \\ 77 \\ 64 \\ 47 \\ 40 \end{bmatrix} $	27	21
ATLAS. Sixpenny Eightpenny, common Tenpenny	$\begin{array}{ccc} A. & 6 \\ \hline & x8 \\ \hline & xx8 \\ \hline & xx8 \\ \hline & x \end{array}$	$ \begin{array}{c} 114 \\ 54 \\ 33 \\ 24 \end{array} $	30	26
LARGE ATLAS. Eightpenny com. or Port Folios ————————————————————————————————————	P.F. x8	$36 \\ 30 \\ 20 $	34	27
or Large Boards 5	Blank	12 to 20	40	28

TABLE 1.—continued.

TABLE II.

The various Prices and Substances of MILLBOARD, as snitable to various sorts of VELLUM BINDING.

NAMES OF BOARDS.	SUITABLE FOR VELLUM BINDING.
Pot. Sixpenny Sevenpenny Eightpenny, thin . common Tenpenny	FOOLSCAP. 2 qr. half-bound, and 16 to 20 sheet 4to. boards or forrel. 2 qr. vellum, or 1 qr. 4to. 3 qr. vellum or forrel, or 1½ qr 4to. 4 and 5 qr. vellum, 5 qr. forrel, or 2 qr. and upwards 4to. 6 qr. vellum, 6 and 7 qr. forrel. 8 to 10 qr. Russia bands, or rough calf.
CROWN. Sixpenny Sevenpenny Eightpenny, thin . ————————————————————————————————————	DEMY. Thin 8vo. bazil. 20 sheets 4to., thin 8vo. bazil, and file prints. 1 qr. 4to. forrel, 12 sheets 8vo. and file prints. 2 qr. vellum, 3 qr. forrel, 2 qr. and upwards 4to. 3 and 4 qr. vellum, 4 and 5 qr. forrel. 5, 6, and 7 qr. vellum, 6 and 7 qr. for. or sup. royals, rough calf.
SHORT. Sixpenny Sevenpenny Eightpenny, thin . — common Tenpeuny	FOOLSCAP. 16 sheets 4to. 2 qr. forrel, and 20 sheets 4to. 2 qr. vel. 3 qr. for, and 1 qr. 4to. 3 qr. vel. 4 qr. for, and 1½ qr. 4to. 4 and 5 qr. vel. 5 and 6 qr. for. 6 qr. and upwards, vel. or for. (This board ents out two broad and one long folio, also 3 pair 4to. or 3 long folio.

TABLE II.—continued.		
NAMES OF BOARDS.	SUITABLE FOR VELLUM BINDING.	
MIDDLE. Sixpenny	MEDIUM. To line a thin board, medium or imperial. 8vo. forrel or bazil. 1 qr. 4to. vellum or forrel. 2 and 3 qr. vel. 3 and 4 qr. for. 5 and 6 qr. vellum, 6 and 7 qr. forrel.—Imperial 4 qr.	
SMALL HALF ROYAL. Sevenpenny	ROYAL. To line a thin board, and for alphabets. 2 qr. vellum or forrel. 3 and 4 qr. vellum, 4 and 5 qr. forrel. 5 and 6 qr. vellum, 6 and 7 qr. forrel.	
LARGE HALF ROYAL. Sevenpenny	SUPER ROYAL. To line a thin board, and for alphabets. 2 qr. vellum or forrel. 3 and 4 qr. vellum, 4 and 5 qr. forrel. 5 and 6 qr. vellum, 6 and 7 qr. forrel.	
SMALL ROYAL. Eightpenny, common	For the same purpose, when cut in two, as Small Half Royal.	
LARGE ROYAL. Eightpenny, common	For the same purpose, when cut in two, as Large Half Royal.	
ATLAS. Eightpenny, thick . Tenpenny	IMPERIAL. 4 and 5 qr.) without being 8 and 10 qr. lined.	

TABLE 11.-continued.

TABLE III.

The various Prices and Substances of MILLBOARD, as suitable to various Sorts of LEATHER BINDING.

NAMES OF BOABDS.	BUITABLE FOR LEATHER BINDING.
рот. Eightpenny, thick . Tenpenny	POT. } Small law folios.
FOOLSCAP.	FOOLSCAP.
Sixpenny	{ Svos. in boards.
Sevenpenny	Svos.
Eightpenny, thin .	Svos. thick.
————————————————————————————————————	{ 4tos. and folios.
CROWN.	CROWN.
Sixpenny	Spelling books, &c.
Sevenpenny	12mos. small common prayers,
Eightpenny, thin .	&c.
common	} Svos. minion bibles, &c.
thick .	4tos. and folio music.
Tenpenny	Folios.
SHORT. Sixpenny Sevenpenny Eightpenny, thin . common thick . Tenpenny	1.4.11
MIDDLE.	DEMY.
Sixpenny	Spellings, &c.
Sevenpenny	Testaments and thin 12mos.

TABLE III.-continued.

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NAMES OF BOARDS.	EUITABLE FOR LEATHER BINDING.
Eightpenny, thin . 	
LARGE. Sixpenny Sevenpenny Eightpenny, thin . 	MEDIUM. 12mos. thin, and demys in boards. 12mos. 8vos. and thin 4tos. Thick 8vos. and 4tos. 4tos.
SMALL HALF ROYAL. Sevenpenny Eightpenny, thin	ROYAL. Small paper.
LARGE HALF ROYAL. Sevenpenny Eightpenny, thin . ————————————————————————————————————	ROYAL. Svos. in boards. Svos. and boarded 4tos. 4tos. and folios.
SMALL ROYAL. Sevenpenny Eightpenny, thin . 	ROYAL. } Small paper, and 8vo. in boards. } Small paper, portfolios, &c.
LARGE ROYAL. Sevenpenny Eightpenny, thin .	ROYAL.
	1)

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NAMES OF BOARDS.	SUITABLE FOR LEATHER BINDING.
common Tenpenay	ROTAL. Portfolios, &c.
ATLAS. Eightpenny, common Tenpenay thick LARGE ATLAS, Eightpenny, common	Atlas and portfolios.
or Portfolios Tenpenay thick . DOUBLE ELEPHANT, or Large Boards.	

TABLE III.-continued.

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A LIST OF BOOKBINDERS, VELLUM BINDERS, BOOKBINDERS' TOOL MAKERS, BOOK CLASP MAKERS, BOOK AND CARD EDGE GILDERS, AND MANUFACTURERS OR DUALERS IN MILLED BOARDS, ETC.

BOOKBINDERS.

Adams, Thomas, 14, Little Tower Street. Adlard, John, 35, Villiers Street, Strand. Agg. James, 116, Fleet Street. Aitken, Charles, 4, York Buildings, Adelphi. Aked, Joseph, 1, Palsgrave Place, Strand. Allen, Edward, 12, Tavistock Row, Covent Garden. Allsworth, William, 19, High Street, Lambeth. Angell, F. W., 20, Cursitor Street, Chancery Lane. Anscombe, Russell Street, Chelsea. Armitage, 36, Threadneedle Street. Arnott, 39, St. Andrew's Hill, Doctor's Commons. Astle & Co., 80, Coleman Street. Aston, 11, Craven Buildings, Drury Lane. Axon, 16, Bartholomew Close. Baker, 15, Bath Street, Newgate Street. Ball, 20, Little Carter Lane. Balls, 66, Albany Street, Regent's Park. Barford, 27, Poland Street, Öxford Street. Barratt, 21, Portugal Street, Lincoln's Inn Fields. Batchelor & Martin, 107, St. Martin's Lane. Bateman, 36, Tottenham Street, Fitzroy Square. Batchelor, 112, Fetter Lane. Baxter, 49, Bartholomew Close. Beadon, 41, Gloncester Street, Queen's Square. Bell, 21, Lawrence Pountney Lane. Bevan, 5, Chapel Place South. Blumfield, 22, Well Street, Cripplegate. Bolster, 12, Dyer's Buildings, Holborn. Bone, 76, Fleet Street. Bulck, 7, Litchfield Street, Soho. Bullwinekle, 5, Cullum Street. Burn, 37, Kirby Street, and 35, Hatton Garden.

Bush, 15, Jewry Street, Aldgate.

Camp, 13, John Street, Spafields. Carpenter, 4, Wardrobe Terrace. Carr, 30, Holywell Lane, Shoreditch. Catnur, 98, Bethnal Green Road. Catmur, 3, Cherry Tree Court, Aldersgate Street. Chubb, 5, Dean Street, Fetter Lane. Clarke, 25, Bouverie Street, Fleet Street. Clarke, 61, Frith Street, Soho. Clyde, 9, Newman Street, Oxford Street. Cole. 3. Keen's Row, Walworth Road. Collier, 72, Hatton Garden. Cook, 84, Grav's Inn Lane. Cox. 15, St. Swithin's Lane. Crawford, 18, Peerless Row, City Road. Crawford, 16, Peerless Row, City Road. Crisp & Son, 54, Newman Street, Oxford Street. Curtis, 28, Milton Street, Cripplegate. Dalton, 14a, Bear Yard, Lincoln's Inn Fields. Davis & Co. 104, Sloane Street. Davis, 13, Great Mitchell Street. Davis, 17, Gresse Street. Tottenham Court Road. Davison, 11, Jewin Crescent, Cripplegate. De Knock, 37, Spring Street, Paddington. Donkin, 17, Newcastle Street, Farringdon Street. Driscoll, 12 & 13, St. Clement's Lane. Dunn, 14. Chandos Street, Covent Garden.

Edgeler, 7, Houghton Street, Clare Market.
Eedy, 37, Tavistock Street, Covent Garden.
Eeles & Son, 22, Cursitor Street.
Egleton, 903, Holborn Hill.
Egleton, 17, Queen Street, Clerkenwell.
Ellison, 17, Ave Maria Lane.
Embery, 19, New Street. Clothfair, Smithfield.
Evans, 64, Berwick Street.
Ewing, 38, St. Andrew's Hill, Doctor's Commons.
Ewins, 10, Lambeth Hill, Upper Thames Street.
Fellowes, 4, Amen Corner, Paternoster Row.

Fellowes, 4, Amen Corner, Faternoster Row. Field, 15, Frances Street, Newington High Street. Field, 15, Cross Street, Hatton Garden. Finch, 8, Pearson Street, Kingsland Road. Fisher, 19, Hanway Street, Oxford Street. Flude, 2, Postern Row, Tower Hill.

- Ford, 69, Wood Street, Cheapside. Fraser, 90, Long Acre.
- Furber, 19, Woburn Buildings.
- Gale, 16, Goswell Road.
- Gardner, 45, Paddington Street.
- Gibbs, 8, Great Newport Street, Long Acre.
- Gibson, 1a, Duke's Road, Pancras New Road.
- Glaisher, 23, Nassau Street, Middlesex Hospital.
- Goodwin, 15, Shoe Lane.
- Gosnel, 20, Rathbone Place, Oxford Street.
- Gyde, 7¹/₂, Red Lion Court, Fleet Street.
- Halesworth, 27, Bread Street Hill.
- Hallewell, 65, Newman Street, Oxford Street.
- Hammond, 2, Lant Street, Borough.
- Harding, 23, East Street, Red Lion Square.
- Hargreaves, 21, Warwick Lane, City.
- Hatchard, 24, New Street, Brompton.
- Hatton, 24, Great New Street, Fetter Lane.
- Havell, 4, Hind Court, Fleet Street.
- Hayday, 31, Little Queen Street.
- Hodge, 34, Great Marlborough Street.
- Holland, 5, Bull and Mouth Street.
- Holmes, 1, New Inn Buildings.
- Hood, 25, Red Lion Square, Holborn.
- Howe, 7, Upper Marylebone Street, Portland Place.
- Hunt, 24, Cullum Street, Fenchurch Street.
- Hunter, 178, High Holborn.
- Huntsman, 10, Duke Street, Adelphi.
- Hutchings, 1, Poplar Row, New Kent Road.
- Inman, 12, Essex Place, Mare Street, Hackney. Isacke, 1, Parker Street, Westminster. Isacke, 18, Sherborne Lane, City.
- Jackson, 42, Great Chart Street, Hoxton. James, 15, Kirby Street, Hatton Garden. Jeffries, 5, Angel Court, Snow Hill. Johnson, 13, Leicester Street, Regent Street. Jones, 7, Chiswell Street, Finsbury Square.
- Kelly, 7, Water Street, Arundel Street. Kelly, 15, Gower Place, Euston Square. Key, 7, Oxford Arms Passage, Warwick Lane.

Keynton, 8, Regent Street, City Road.

Kimpton, 53, Wardour Street, Soho.

- King, 32, Bartholomew Close.
- Kiteat, 50, Hatton Garden.

Knapp, 10, Green Street, Church Street, Blacktriars.

Knibb, 30, Kirby Street, Hatton Garden.

- Lacey, 25, Little Wild Street, Lincoln's Inn Fields.
- Lambol, 17, Clothfair, Smithfield.
- Land, 2, West Street, Walworth Road.

Larkin, 40, Newman Street, Oxford Street.

- Leighton, Son, & Hodge, Shoe Lane.
- Lewer, 33, Lower Ranelagh Street, Pimlico.
- Lewis & Sons, 9, Gough Square, Fleet Street.
- Lewis, 54, South Molton Street.
- Lewis, 35, Duke Street, St. James's Square.
- Liddon, 2. Knowles Court, Doctor's Commons.
- Linden, 11, Easton Street, Spafields.
- Lock, 4, Borough Road.
- Lorimer, 20, Bedford Square East.

Low, 1, Gray's Inn Passage, Red Lion Street, Holborn.

McCullock, 11, Temple Street, Whitefriars.

McFarlane, 10, Old Bailey.

McMurray, 2, Lillypot Lane, Noble Street.

Macefield, 26, Myrtle Street, Hoxton Old Town.

Maeefield, 72, Myddelton Street.

Macomie, 6. Percy Street, Tottenham Court Road.

Martin, 1, Prujean Square. Old Bailey.

Martin, 7, Princes Street, Barbican.

Martin, 14, Fetter Lane, Fleet Street.

Masters, 12, Dyers' Buildings, Holborn.

Matthews, 53, Paternoster Row.

Matthews, 1, Melbourne Place, Cambridge Road.

Morehen, 5, Bartholomew Close.

Napper, 13. Everett Street, Brunswick Square. Nevett, 1, Johnson's Court, Fleet Street. Norman, 6, Kirby Street, Hatton Garden. Nutt, 12, Craven Buildings, Drury Lane.

Oldfield, 74, Red Lion Street, Holborn. Orton, 1, Little St. Mary Axe. Palmer & Son, 313, Strand.

- Palmer, 13, Princess Street, Lisson Grove.
- Palmer, 5, Great Chesterfield Street, Marylebone.
- Pasmore, 17, Manor Place, Walworth Road.
- Payne, 31, Tabernacle Walk, Finsbury.
- Peck, 52, Hoxton Square.
- Peek, 8, Warwick Square, City.
- Perraton, 4, King's Head Court, Holborn Hill.
- Pierson, 23, Great Winchester Street.
- Phillips, 104, High Holborn.
- Phillips, 12, Plumber Street, City Road.
- Pittard, 15, Little New Street, Shoe Lane.
- Polwarth, 8, Queen's Row, Pimlico.
- Pooke, 14, Fisher Street, Red Lion Square.
- Pool, 26, Bartholomew Close.
- Potter, 16, Warwick Place, Kingsland.
- Potter, 60, Tabernacle Walk, Finsbury.
- Power, 26, Newcastle Street, Strand.
- Powneeby, 277, Whitechapel Road.
- Price, 21, Chiswell Street, Finsbury.
- Price, 65, Old Broad Street, City.
- Proudfoot, 73, George Street, Euston Square.
- Pullen, John and Samuel, 55, Redcross Street, City.
- Pymm, 32, Villiers Street, Strand.
- Pymm, 14, Upper Crown Street, Westminster.
- Raines, 24, Great Ormond Street.
- Ravenseroft, 4, Upper James Street, Golden Square.
- Ray, 43, Duke Street, St. James's.
- Remnant, Edmonds & Co., 8 to 12, Lovell's Court, Paternoster Row.
- Reynolds, 6, Eldon Street, Finsbury.
- Richards, 21, Old Change.
- Richardson, 14, St. Swithin's Lane.
- Richmond, 53, Skinner Street, Snow Hill.
- Ridsdale, 28, Worship Street, Finsbury Square.
- Riley, 118, Dorset Street, Salisbury Square.
- Riley, 90, Queen Street, Cheapside.
- Riley, 18, Warwick Square, Newgate Street.
- Rivière, 28, Great Queen Street, Lincoln's Inn Fields.
- Robertson, 18, Roll's Buildings, Fetter Lane.
- Round, 129, Fetter Lane.
- Rowbotham, 70, Castle Street East, Oxford Street.
- Rumfitt, 33, Castle Street, Leicester Square.
- Russell, 3, St. James's Street, Clerkenwell.
- Rutter, 23, King David Lane.

Sanders, 2, Ivy Lane, Newgate Street.

Sapsford, 17, Kirby Street, Hatton Garden.

Saw, 37, Vere Street, Clare Market.

Searle & Sizer, 19, Frith Street, Soho.

Serjeant, 11, Staining Lane.

Shaw, 22, Old Boswell Court, Carey Street.

Simmons, 23, Goswell Terrace.

Simmons, 19, Middle Street, Clothfair.

Simpson, 25, Bread Street Hill.

Slate, 103, Hatton Garden.

Smith, 5, Ivy Lane, Newgate Street.

Smith, 24, Duke Street, West Smithfield.

Smith, 12, Bridgehouse Place. Newington.

Smith, 45, Hart Street, Covent Garden.

Smith, 52, Long Aere.

Smith, 15, St. John's Lane, Clerkenwell.

Soul, 26, Tabernacle Walk, Finsbury.

Souter, 11, Bell's Buildings, Salisbury Square.

Spencer, 16, Bridgewater Square, Barbican.

Stagg, 37, Devonshire Street, Queen's Square.

Stanley, 11, Carburton Street, Portland Road.

Stannard, 3, Fenton Street, Commercial Road East.

Strahan, 32, Castle Street East, Oxford Street.

Straker, 35, Monkwell Street.

Stratford, 9, Hampstead Street, Fitzroy Square,

Suttley, 4, Cross Street, Bermondsey New Town.

Symmons, 13, Wine Office Court.

Tarrant, 1901, High Holborn.

Taylor, 9, Huggin Lane, Wood Street.

Tepper, 46, Southampton Buildings.

Tesseyman, 5, Broad Court, Bow Street.

Thorburn, 2, Pleydell Street, Fleet Street.

Thorburn, 3, Clement's Inn, Strand.

Thorn, 45 & 59, Basinghall Street.

Trender, 23, Wells Street, Cripplegate.

Trickett, 37, Stamford Street, Blackfriars Road

Tucker, 7, Little Warner Street, Clerkenwell.

Tuckett, 20, Little Russell Street, Bloomsbury.

Turner, 4, Bond Court, Walbrook.

Upfold, 43, Buttesland Street, Hoxton.

Wallwork, 42, Great Marlborough Street. Warwick, 19, Rolls Buildings.

Watkins, 8, Paradise Row, Gravel Lane.

Watson, 13, Ryder's Court, Leicester Square.

Weemys & Co., 1, Long Lane, Smithfield.

West, 2, St. James's Walk, Clerkenwell.

West, 52, Hatton Garden.

Westley & Co., Friar Street, Doctor's Commons.

Westley, Playhouse Yard, Blackfriars.

Westley, 8, Warwick Square, Newgate Street.

Whiting, 7, Oxford Arms Passage, Newgate Street.

Williams, 1, Belvidere Place, Cambridge Road.

Williams, Duchy Place, 137, Strand.

Willington, 4, Princes Street, Fitzroy Square.

Wilson, W. & H., 19, Foley Place, Portland Place.

Wilson, 33, Ray Street, Clerkenwell.

Wilson, 5, Gloncester Terrace, Cambridge Road.

Wilton, 5. Symond's Inn, and 6, Bream's Buildings, Chancerv Lane.

Wingrove, 44, Commercial Road Lambeth.

Wolter, 52, Drury Lane.

Wood, 2, Fountain Place, City Road.

Woolnough, 6, Bateman's Row, Shoreditch.

Woolnough, 7, Upper James Street, Golden Square.

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