In dealing with the subject of forwarding we shall first take up that system of work known as "inboards," reserving the specialities of "outboard," cloth, and Bible work for later consideration. Inboards is the favourite style for good work, and is held to be superior in every way to the outboards style, but we are not going to despise outboard work because of any traditional advantages in the other method. Given two copies of an ordinary book, a skilled workman on each side, and an equal amount of care in each and all of the stages of forwarding; there would be little to choose between the two, and the outboard book would be as strong and enduring as the one done inboards; but there are points with which we shall have to deal which render the inboard method certainly the best for particular classes of work, and no matter how good the machinery may be, no such satisfactory results can be obtained by the outboard system.

It is mainly upon the question of strength and durability that opinions clash as to the merits of the two systems, and we fail to see in what manner possible the inboard book can be considered stronger than the other, simply taking into view the difference of the method of cutting; here, of course, we suppose both books to be drawn-in. The common fault with outboard work, which has won for it the stigma of being common and unclean, is, that being considered cheap, cheapness has run rampant over all the points of production, and it has often become simply cased work done in a very slop style. Such trash must not be taken as a fair sample upon which to form a judgment, because there is plenty of slop work done by inboard forwarders, but such work is constantly cited in proof of the contention that inboard work is the best, and an opposition to outboard work has grown up and become deeply seated owing to two principal reasons.

First, the feeling that outboard work tends to a reduction of labour, and therefore should be discontinued; and, secondly, the difficulty experienced by inboard hands in rounding and backing books evenly, to present a smooth edge on the outboard book. On the inboard book, no matter how faulty the work, the edges are generally smooth, whereas on the outboard book the same faulty workman would present a foredge full of starts. Rounding and backing for outboard work is very different to that which usually passes for inboards, and the state of perfection to which this single division of the work is brought cannot be better illustrated than by reference to the Bible work of the trade, which is all outboards; the foreedges of which would compare with the foreedges of inboard work, while the shape would make many inboard workers hide their heads for shame.

The feeling that outboard work reduces labour is true in a limited sense, and we can understand the clinging to old methods and the comparison of the old methods by experienced workmen, against newer methods by less experienced workmen. It is no new difficulty to deal with, but the experience of the trade has been that speedier methods of production have been more profitable to all concerned in the long run, and the cloth hand of to-day earns quite as good if not better wages than the inboard hand. Every new method of production has had to suffer by reason of comparison with the best products of older methods, yet in the end newer methods have prevailed. The main point to be borne in mind in either system of work should be excellence. Inboard work may be as intrinsically bad as any done outboards can be, but the redeeming feature of it is that the edges do not show the starts and irregularities which an outboard book as badly rounded and backed would have, and for that reason cutting inboards is defended.

On taking the book from the sewers, the first thing to be done is to open-up the slips, or bands of cord on which the book is sewn. Take a bodkin in your right hand, lay the book on its side on your press and with your left hand hold up the slip, push the bodkin into the strands close down to the book and push upwards, untwisting the strands of which the cord is composed, then gently scrape them with the knife, upwards, with the slip between your thumb and the knife, until the harshness of the twisting is removed, and the slip looks like a piece of fluffy yarn. This must be done to each slip used for drawing-in, but great care must be taken not to cut the slips in any way that would weaken it; the strength of the book largely depends on these slips or bands. In some cases books are sewn on fine bands, when, except for very heavy work, it is usual to only draw-in three, the two ends and the centre band, the other two being cut off close to the book.

The next thing is to "knock-down"; that is to say: in the sewing the thread has swollen the back and made it thicker than the foredge, and this swelling must be reduced by hammering until the foredge and back are as nearly as possible equal in size. Either take a knocking-down iron and screw it up in your press, or screw your press tightly together; take the book and knock it up on the head and back, taking pains to get all the sections square and even, hold the book tightly in your left hand by the foredge, turn the slips outward away from the book, lay it on the iron or press, and gently tap along the edge of the back with the hammer until the swelling is reduced. Knock up again, turn the book over and repeat on the other side. In doing this you must watch that none of the sections run in; if they do, knock up hard on the back till they are brought up level. Generally there is not half enough care taken in this simple job, sections are allowed to run in, and when being pressed the evil is intensified. Care must also be taken not to strike the book with the edge of the hammer, but the flat surface, or the outer sections may be cut.
Pasting-up: Lay the book head towards you, and foredge to the left; open it between the first and second sections and lay a folded strip of paper parallel with the back, and about 3/4 of an inch in from it (or a little more, in accordance with the size of the book); then take a dab of paste on your forefinger and smear it lightly along the narrow margin exposed, seeing that it is pasted evenly all along, but not so thickly as to cause the paste to spread; remove the paper, close the section evenly with the back, and press down with your hand; then turn your book over and do the same at the other side; knock up gently on back and head, and place the book between pressing boards, piling up back and foredge, and being careful to draw the slips out to prevent them marking the books in pressing. Small work may be piled up book on book, back and foredge, bringing the backs in a bit, but so that the top book just covers the bolts of the under one, and piled in the press afterwards, but for all large and heavy work, especially if overcast, it is best to handle as little as possible, and, therefore, wisest to have a pile of pressing boards by your side, and to build up between boards as you go on. Do not try to paste-up without a slip of paper, that is a miserable slop style that gives the section, when opened, a very ugly appearance, compared with the neat straight line of the pasted margin if a slip of paper is used, besides which, the paste not being so evenly laid on, is more than likely to spread, and if it runs into the print, as it may do in narrow margins, the book is spoiled. Having filled the press, put on a good heavy pressure, and leave the books in for some hours, giving an extra wring down after the books have given a bit to the pressure first applied. Whilst in the press, you may proceed to make the endpapers and line boards.

Endpapers.—There are three methods of making endpapers, of which the first is the most commonly adopted. Cut folded white and folded marble papers to the size of the book as nearly as possible, rather larger than smaller; if the marble papers are of any comb pattern, reverse every other paper if the comb runs lengthwise; for other marbles this will not be necessary. Some brocade papers will also need to be reversed. Lay a sheet of white down on a piece of millboard or stout waste paper, folded, and back from you, paste all over evenly, working the brush from the centre and right off the edges of the paper, and don’t attempt to lift the brush till it has cleared the edges, or the paste will go between the paper, causing it to stick where it should be free; with your finger remove any lumps, grits, or hairs; take two folded leaves of marble paper, see they are level at the back or fold, and place them on the pasted white, exactly up to the folded edge; then paste the top marble and place on a white. You have thus a pair, but if you have a number of books of the same size, you may put on two whites and continue the process till you have made, say, six pairs, when they must have a nip in the press; then take out and hang up on a line to dry, opening the marble paper to hang on the line, as that is likely to stick, being damp. When dry, refold the white paper the reverse way, but in the same crease, so that the marble is inside the white, with one loose leaf to tear off when the book is pasted down. In putting the papers on, a single leaf of white must be edged on to the book, forming a fly, and then the made paper edged on to the white fly.

A second and better plan for good work is to make the papers in the same manner as the foregoing, but not to refold them. In putting them on the book, a folded sheet of white is edged on, the white thrown open, and the made paper edged in close up to the crease at the back, the marble paper uppermost; the thrown-out leaf of white is then drawn over the outer leaf of marble, to be torn off in pasting down. This plan is decidedly the best, for, on opening the made end, the inside white joint is perfectly clean and opens right up to the back, and you have two white fly-leaves. Don’t be niggardly over a piece of white paper if you have a book to be nicely bound.

The third method accomplishes the saving of a white leaf for the tear-off by the use of a leaf of thin waste. Cut leaves of waste about a quarter of an inch wider than the whites, fan out to leave a quarter of an inch margin, paste, lay a leaf down pasted edge from you, lay on a folded white, the folded edge to the line of paste, and draw over the narrow pasted strip. In making, paste over the side of the white on which the strip of paste has been drawn, and lay the marble on top, covering the waste strip, and proceed as before. When dry, turn back the waste over the marble. The papers may then be put directly on to the book, making one fly-leaf, or by edging on a single white first, you will have two fly-leaves.

Cloth Joints.—Cut strips of cloth of the width required, that is, according to the size of your joint; for an octavo book about 1 1/2-in. will be wide enough. Take folded sheets of white and fan out, leaving a margin of about three-sixteenths of an inch, place a piece of waste on the top sheet, leaving the same margin, and glue about six at a time. Lay a strip of cloth face down on your board and place the glued edge of the paper on to the cloth, so as to catch the whole of the glued surface; rub down and continue with the others. Next, turn them all over, take the top one (the cloth will be surface up now), glue a single leaf of marble, and lay down so that it just covers the edge of the cloth, rub well down and finish the six; give them a nip in the press, and, when dry, refold the white paper in the same crease, with the cloth over the marble, passing your folding stick inside the cloth to get it to fold exactly even with the
paper, then pass your folder over the fold to sharpen it and break the cloth into position. A thin glue, perfectly free from grit, must be used for the paper, and sparingly but evenly applied. The other leaf of marble is put on after the joint has been glued down.

In all this part of the work, the main points to be watched are (1) that your papers are properly pasted or glued—that is to say, evenly, with just so much as is required and no more, so that the paper may adhere thoroughly without being too damp; (2) and this is perhaps of the most importance, that the marble papers are brought up exactly to the fold of the whites: the slightest deviation from that line will spoil the joint in pasting down.

[To be continued.]

Our Prize Competitions.

The Twenty-fifth Prize of Twenty Shillings for the best half-bound book, cut out of boards, has been awarded to Mr. John Watson, working for Mr. T. W. Farrell, at 167 Ingram-street, Glasgow, for a Sunday at Home, in half-red morocco, gilt edges, and a cheque for the amount has been forwarded.


Worthy of Mention:—"Plato"; F. Smith; and G. Ballantyne.

Again we are pleased to speak of the high degree of excellence in the work. So nearly equal in workmanship were the first four, that the task of selecting one for the prize wasrendered very difficult, but having in view the difference in the qualities of the paper of which the books were composed, we gave Mr. Watson the prize. One competitor was thrown out, in spite of a splendid piece of work, for not complying with our plain direction that the book must be gilt in the flat. Perhaps our friend thought we should not know the difference.

COMPETITION NO. 27.

We offer a Prize of Twenty Shillings for the best design for a back with five narrow bands, one lettering piece and tail panel; size, 8 x 1½ inches.

PAY ATTENTION TO THE RULES.

1. All designs must arrive on or before February 28th. The award will be made in the March number.

2. All designs submitted must be upon the condition that they have never been used before; but no limit is placed upon the number submitted.

3. All designs must be drawn in black ink, or worked in black upon white paper.

4. All designs may be signed with a nom de plume, but the correct name and address of the competitor must accompany each design, together with the name of the competitor's employer. This is not intended to debar employing binders from the competition, but to confine it to bookbinders.

5. The Editor reserves to himself the right to publish any design which may be sent in, as worthy of mention, besides the successful design.

6. The decision of the Editor must be considered final.

7. The Editor cannot hold himself responsible for the return of unsuccessful designs under any circumstances whatsoever.

8. Each competitor must cut out and send with his work a subscriber's coupon, which will be found at foot of last page of the cover.

9. All designs for competition must be directed to The Editor, The British Bookmaker, De Montfort Press, Queen-street, Leicester, and marked "Prize Competition" in the left-hand top corner of the envelope.

A cheque for Twenty Shillings will be forwarded to the successful competitor immediately upon the award being made.

From one of our competitors we have received the following useful hint, which we are sure will be appreciated by those who are striving to cultivate artistic perceptions by means of our competitions, and on their behalf we thank our correspondent. "Many pretty designs may be easily worked out in black and bronze, by means of a small piece of printers' composition, about a thimbleful of ink, and a pennyworth (or so) of bronze. In these you have a stock of materials (with a few finishers' tools) to amuse one for months."

An interesting volume is the "Twelve Bookbinders," published by Abenheim, of Stuttgart. Its author, Smith-Heissenfels, to propagate a knowledge of the history of the bookbinders' craft, and inspire in the craftsman a love and appreciation for the same, gives in its pages interesting incidents in the lives of twelve famous bookbinders of past days. Beginning with a short sketch of the life of brother Godfrey, generally conceded to have been the first professional bookbinder, he successively brings before the reader sketches of other famous binders and their less known contemporaries. In this way he leads the reader from one epoch to another, and gives a short history of the craft. The volume will be welcome to many readers who, not having an opportunity to consult larger and costlier works on the subject, would otherwise have to forego the pleasure of knowing something of the old masters of the art and the early history of the craft.

An 1893 wall calendar from Messrs. Wilson, Walker and Co., Sheepscar Works, Leeds, 13 x 11-in., got up in somewhat the same style as last year's card, is a handsome piece of work, and very appropriate to the character of the firm's productions. The card shews a broad-grained brown leather border on pale blue ground, with name and address of the firm in broad panels at head and foot in brown and silver respectively, and other lettering in silver, with a neat view of the works in the centre of a scroll panel. The date blocks are in two sections at the foot of the card. The effect of the whole is very tasteful and pleasing, and our copy has already taken up its abode on the wall of our sanctum, where it succeeds the card sent last year by the same firm.
On Forwarding.

For whole bound calf work, the boards should be lined on both sides, because amongst the materials of which the boards are composed there are frequently to be found substances which will stain the calf unless something is used to first cover the boards. For morocco work, the board needs only be lined on one side, that which goes towards the book. The same for half-bound work.

The best plan is to line the whole board before cutting it up; it is a quicker plan and quite as efficacious as lining afterwards. The main points to be observed are, to paste the paper thoroughly with thin paste free from lumps or grit, and to stretch it well on the boards so that it adheres thoroughly all over. When laying the paper on, to prevent wrinkles or blisters, lift one corner at a time and smooth out from the centre as you lay it down again, towards the corner, then repeat with the other corners. Afterwards stand the boards out to dry.

Some firms have their boards lined so that a narrow strip is drawn over one edge on to the outside; this is supposed to be of advantage by strengthening the board at the part where it is drawn in, but any advantage is very questionable, while on the other hand the joint must be freed from the paper lining when passing down, so that it is far better altogether not to so line them.

Made boards must be cut up before making, and the boards pasted with stout paste, the thinner being kept inside, as that will draw the thicker, and the slight warp will be towards the book. After several have been joined together they must be put in the standing press, and a gentle pressure applied until they have set a bit, then wring down heavily and leave in the press all night. If you attempt to wring down heavily at first they are almost sure to slip.

In putting on end papers, fan out the white flys and the made papers in two separate lots, leaving a margin of about three-sixteenths of an inch on each, for pasting; use stout paste, and place the flys and ends on the book flush with the head, and well up to the back, the slips being pulled outward. Then pile up in boards and give another nip in the press till dry.

Next cut your boards up to the size required for the book; if you have a pattern or rubbing, after measuring off the length and width, cut the boards just the slightest shade less than the pattern, according to the thickness of the leather to be used, to allow for that thickness in the turn-in. In the case of a book to be cut to such size as the margin will allow, measure with the compasses the size you intend to cut to, and allow for the squares according to taste, say for a crown 8vo one-eighth of an inch at each end; royal 8vo three-sixteenths of an inch, and on the foredge just about a compass hole wider than the ends. Always give the foredge a little larger square, or the book will appear out of proportion.

Now to glue up your work. If you have a good sized book, say royal 8vo, it is best to knock it up well on the head and back, seeing that it is nice and square, with no sections running in, and screw it up in the lying press tightly with the hand (you need not use the press pin); then gently open the sections with your thumb, right down the back, and especially on the kettle stitches, but without straining the sewing, just enough to allow of the glue running between the sections. The glue must be hot, and just thin enough to flow easily from the brush without frothing, and enough must be put on to fill the openings made without running into the book further; then the glue must be rubbed in with the thumb, making it lay even and taking off the surface the surplus not wanted there. Of course, you cannot glue up a back without leaving some on the ridges of the sections, but the object is to get it between them, leaving the ridges themselves as clean as possible, and care must also be taken to keep the slips clean, as the glue will make them brittle, when they would be easily broken off in the backing or knocking down. Smaller books may be opened up on the side of the press, piled two or three on top of one another, with the slips tucked in between, and glued up, but in either case do not glue up more than you can successfully round and back before the glue gets hard.

As soon as the glue has set sufficiently to hold, yet retaining some dampness and flexibility, commence to round. This is one of the most important parts of the work, and we fear the principle which underlies the operation is not properly understood. It is commonly thought, that the book is beaten into the required shape, that is to say, that the blow of the hammer must be directed towards the workman to drive the sections over, and this common error is the fruitful cause of some terrible eyesores in shape, and a too plentiful abundance of starts. In reality the book is rounded by the action of the fingers, and the beating simply closes up the sections, thus fixing the book in the position into which it has been drawn.

Lay the book on your press foreedge towards you, take hold of your hammer, now place the fingers of your left hand round the back and underneath, and draw the back over towards you till it lies out almost flat before you, press the face of the hammer on the side to hold the book while you shift your left hand, bring it forward, thumb stretched out towards the foreedge, and fingers up to the back, and then strike with the face of the hammer flat in the centre of the back, but here is the point, let the blow be directed so that the force goes from you, not towards you; repeat the blows on each side of the centre along the back. Now turn over and repeat the operation, then knock up on the end and look at the round to see that it is properly shaped, that is, with a curve representing about a third of a circle, then gently tap along the top edge of the round to finish it off.

Now that is very simple, yet hundreds of men never think of the effect of the blows they give. They labour away at the upper half of the back, beating towards them, with the consequence that there is an ugly ridge in the centre, the sections on each side being driven in, and the foredge presents the appearance of a flight of steps. [To be continued.]
It is a very important point that books should not be allowed to get too dry before backing. It is equally important that there should be a clear understanding of what is aimed at in backing, in order that the blows administered may be directed systematically to the achievement of that object.

Backing does not aim at making the book round, nor in fixing its curvature, but at forming a series of graduated pleats or creases inclining from the centre towards the outer edges of the back, which, supporting one another, will make a strong groove; this must be so done that the back has an even curvature and without breaking it so as to leave a chasm in the centre. Books improperly backed often exhibit the centre broken open, or on opening the book you may find a succession of wrinkles instead of a long regular crease running from head to tail. The former fault is caused by drawing over the sections too violently; the latter either by the blows of the hammer not being directed to the proper place, or by faulty sewing, or if the tension of the thread is too tight it prevents the sections from folding over one another in due order. No definite instruction can be given to cover every case; a great deal of judgment gained by experience is required to enable one to know exactly what to do under varying conditions, but whatever is done must be conducted under certain governing principles which we shall try to lay down, for we are convinced that many fair workmen are showing apprentices without knowing how to teach properly, and are very much puzzled when they find their pupils go astray. We say this with diffidence, knowing well that many expert workmen know thoroughly what they are doing, but have never tried to put their experience into words; on the other hand, some who have written do not know what they are talking about. As an example, we have before us in an American journal some "Short Talks on Practical Bookbinding," and upon this subject we find the following:— "The writer has a most determined objection against striking a book in any other locality than at the outer edges of the back while producing a joint, provided, of course, that the book has been skillfully pressed, sewn, and rounded, and by adopting this hint no bad effect can be produced by the hammering." That advice is anything but good, as those who have tried to follow it must have long ago found out. We do not back books to produce a joint, but a groove, and to aim the blows at the outer edges of the back without first drawing over the sections would result in all the marks of bad workmanship, wrinkles, a hump-back, and a weak groove, owing to the fact that the other sections lend it no support.

We, too, must assume that the work already done before backing is properly and efficiently done, but in practical experience it is often not so, and we have to remedy to the best of our ability the faults of poor sewing. But if the gluing-up and rounding is carried out as we suggested last month, the task will be comparatively easy. The edge of the back will be sharp to the touch, and not beaten down to a blunted condition such as may be found on books where rounding has been performed with the force of the hammer directed towards you. That sharpness is essential to a good groove. Before putting the book in the press, be sure the round is symmetrical and the book quite square; any defects must be remedied now, for although the object of backing is not to fix the curvature, it has that effect and you cannot help it, nor can you appreciably alter the shape after being backed.

Lay your book on the left cheek of your press, and taking a nice straight pair of backing boards without splits, lay one down parallel with the edge of the back, and so far from it as will allow of the exact thickness of the board between it and the sharp edge; turn over and repeat on the other side. The groove must be exactly the size of the board you are going to use, but if there is any difference, it should be rather smaller than larger, because the lining will make up for a shade in that direction. You want it exact, because a very small variation may show up an ugly ridge. At first, measure your distance with your board, your eye will soon grow accustomed to the work. If you make the groove too large, in pressing after the book is covered you may force your back away from the book. When the backing boards are in position, lift them with the book, without shifting, and place them in the press with the lower side of the bevel flush with the cheeks of the press, and wring up as tightly as possible with the iron pin. If the backing boards shift as you put them in the press, take them out and begin again; of course, skilled men frequently tap them into position, but at first you had better take them right out. You may help to prevent slipping by touching the inside of the board with your dampened finger, or if they are old and greasy with use, rub over with a little chalk.

When the book is screwed up in the press you will soon see where the swell in the back forces the sections outward most, and it is upon that part you must commence. That is nearly always between the centre section and the outer sections, but the point where it is accentuated varies. Begin there with the claw of the hammer, used very gently and on a slant, and draw or rather coax the sections outwardly and down till you have reduced that swell, but be careful not to leave deep indentations. Finish the left side first, then take the right, when you will find the centre sections are also gradually drawn with the others. Then reverse the hammer, commence from the centre very gently and work towards the left, increasing the force of your blows as you work towards the backing board, in order to finish up with a sharp groove; then
over to the right in the same manner. Use the hammer always with a swing, working from the wrist, and directing the force outwardly on either side, so as to draw the sections over, and never reverse the force on the same place. In finishing up on the grooves, give direct blows aimed straight at the place with the flat face of the hammer.

Now, if you will think out this systematic drawing over of the sections, and compare it in practice with the plan of the writer we have quoted, you will find how much better is the back made, free from wrinkles, nicely shaped, and opening freely; while by beating on the "outer edges only" you get a hump-backed volume ugly to the sight, awkward to finish, and difficult to open without splitting.

[To be continued]

To our American subscribers we would just give a word of warning. As a sample of what arrogant rubbish can be written by men pretending to teach others, we quote the following:

"The forwarder who writes about 'lacing in boards' where heavy bevelled sides are used, has considerable to learn about his trade.

"The one who writes about cutting off an eighth of an inch from the top and bottom of the boards at the back, to make an easy joint, is a botch. If you want to make a good job, just pare off the corner on the inside of the board, leaving the outside perfectly square."

Oh!!—While it is the custom in some shops to cut off the slips for work with heavy bevelled boards, it is he who does not know how to face in such work who has something to learn about his trade, and the construction of his sentences indicates that he has much to learn about how to write.

While the amount to be cut off the head and tail of the boards at the back must vary according to the size of the book, to say that paring off the corner on the inside, leaving the outside perfectly square, will make a good job, is to prove oneself absolutely destitute of the remotest idea as to why the boards are cut at all.

What should be done, and that is to say what is done by the best binders, will be described in these articles in due course.

PAPER EXHIBITION.—The Middle German Paper Union proposes to hold a trade exhibition at the Easter fair, from the 11th to the 13th April, 1893, in the house of the Kaufmännischer Verein, in Leipzig. The exhibition is to include the paper, stationery and fancy leather trades, the book trades, and the allied industries. The rent of a stand is 58. per sq. metre. Foreign houses are admitted to exhibit. Programmes and cards of application may be procured from the chairman of the committee, Bruno Nestmann, Leipzig. Foreign dealers who may think of visiting the next Leipzig fair, or who are travelling in Germany about that time on business, ought not to omit this exhibition from their programme, as it promises to offer an extensive selection of new and interesting products.

NATIONAL WORKMEN'S EXHIBITION.—In Group III. (Printing, Binding, and Allied Trades), the following represent the binding trades: Messrs. Woodcock, Rawlinson, T. Goddard, and R. A. Goddard (bookbinders); Mr. Robinson (book-edge gilder); Mr. T. Sims (vellum binder).
On Forwarding.

The forwarding of a flexible book, that is, a book sewn on bands with silk, and not sawn-in, is but little different from that of an ordinary book; but it should not be pressed until after it is rounded and backed, and the boards are attached. In all the preliminary parts except this the process is the same. The greatest care is required in the gluing up, rounding, and backing. Glue up with hot, thin glue, run well into the sections, but see that no surplus glue remains around the bands; this work should also be rounded while the glue is still far from dry. In rounding, the whole shape must be made by hand, the hammer only being used to tap down the swelling, and fix the round given, by tapping the sections down from the top, and not on the back itself. Flexible work is generally more difficult to put into the press than other work on account of the swell in the back, so the boards must be held firmly. For backing, the claw of the hammer can be used most suitably, as it goes between the bands better than the face, but the danger lies in its cutting power, and the exposed surface of the threads must be treated very tenderly. In finishing off with the face of the hammer care should be taken not to beat down the bands too much, or difficulty will be found in sharpening them again without breaking the threads, on the soundness of which the strength of the book depends.

Your books being backed, the next thing is to face-in, or draw-in the boards. Place the boards on the book close up into the grooves and level with the head, and mark on the sides the position of the bands, either with the point of the bodkin or a pencil. Then lay the boards singly on a stout block of wood, and with a hammer drive a hole in each mark made, a little way in from the back of the board, say from a quarter of an inch to three-eights of an inch in from the edge, making the bodkin slant slightly towards the foredge of the board. Next turn the board over and make another hole about a quarter of an inch from the first, partly towards you and partly towards the foredge of the board. In thus holing boards it is advisable to have a bit of soap or a piece of candle to dab the bodkin on, which will help the bodkin to pass through easily without breaking the board. Having holed both sides of both boards, lay the book, back towards your right hand, on the press, with the boards in place, take a little thick paste on your finger and draw the slips between your finger and thumb, pulling them straight up, but do not put too much paste on; then roll each slip between the finger and thumb of the fleshy parts of the palms of your hands to point the loose strands of the cord, and thread through the hole nearest the groove, holding the board up on its edge with the left hand, draw tight and thread back again through the further hole. Draw the slips as tightly as possible, take hold of each end slip, one in each hand, stretch out your fingers to hold the intermediate slips and press the board down on to the book while holding them, then give a tap or two with the handle of the bodkin to hold them awhile, and cut off the ends flush with the surface of the board. The book may then be laid aside until a number are drawn in, when they must be knocked down. Screw up the knocking-down-iron firmly between the ends of the cheeks of your lying press, take the book in your left hand, holding the foredge firmly, and lay the board on the knocking-down-iron, with the book close up to the edge of the iron, then beat down the bumps in the board and the exposed part of the slips with the flat face of the hammer until they are quite flat with the board; turn the book over, and hold it up with the fingers under the back for support, and then beat down the inside of the board in similar manner. Of two things you must be very careful: first, that the board is right on the iron along the part next the groove, or you will either cut the slips or split the board; secondly, that the blow from the hammer falls flat, or it will cut the slips and undo all you have been aiming at. The slips must be thoroughly hammered down, as the slightest projection will show through the leather after the book is covered.

Your books must now be pressed, but before piling them up cast your eye over them, and if they are faulty in shape now is the time to remedy the defect by tapping them with a hammer. All best work should have pins placed between the boards and the book, pushed well up into the grooves, although in many shops this is not done; it ensures the flattening of the slips, and we would recommend it for all work. In filling in the press, let your larger books be at the bottom, the centre of the book being well under the screw of the press, and between that and a smaller size, unless you can put two on a board to make about the same size, always leave three pressing boards or a block. Where you have books with heavy bolts making the head thicker than the tail, pile up back and foreedge, and thus in every way study how to obtain the most equal pressure on your work. Having wrung down the press as hard as possible, say with the power of two men, paste all over the backs with some thin paste and let them stand and soak for five minutes to soften the glue. Then take an old backing board, bevelled off at one end, and rub the backs over to scrape off as much of the glue as you can get off; you do not want any on the surface, all that is required is beyond your reach between the sections, and the cleaner you make the backs the more freely will the book open when lined and covered. In flexible work the same process must be adopted, but great care must be used in clearing the glue away from the bands so as not to break the threads. After scraping them with the board give them another rub over with thin paste, and wipe it all off with a handful of shavings.

Books in this stage should stand in the press for twenty-four hours at least; for some work a week is not too long, but few binders have presses to spare for such a time. In Paris, among the best binders, it is common to give a book a week's pressing or more, and this is how they manage it. Place at the bottom of the press one of a pair of tying-up boards, with grooves for a rope to run in, and the rope in the grooves; then pile up a few books of the same size, put the top tying-up board on and screw down the press; pass the rope through the top grooves and tie up tightly when the books and boards may be removed and set aside with the pressure on for as long as convenient.

[To be continued.]
There are two cases in which it is advisable not to lace-in your slips before cutting: one, where a small book is to be bound to match others of a larger size, when, if the boards were laced-in there would not be sufficient play on the slips to allow the boards to be drawn far enough for cutting the ends, so that they must be left until the ends are cut, and drawn in before cutting the foredge; and the other, where thick bevelled boards are used, in which case the boards should not be laced-in until the book is cut all round.

Cutting with the plough is not a difficult operation in itself, but somewhat perplexing to the novice because something is always going wrong; good cutting depending upon so many other points than the mere handling of the plough. Even a good workman must know the run of his press before he can depend upon himself, and would find a difficulty in using some other man's knife, while the last thing he would be inclined to do would be to lend his own knife to someone else. No two presses wear alike, and no two workmen would wear the same press alike if they could be put upon it for a trial, so that it follows experience is necessary to make a workman expert.

There are two kinds of ploughs still in use, one in which the knife is held in position by a square-headed bolt, and the other in which the knife slides in a bevelled slot; the bolt-knife is, however, being rapidly superseded by the slide knife, which is easier to fix and more economical, and we shall only consider the latter.

Slide knives when new have a V shaped point, which is of too sharp an angle to be used as it is; it must therefore be ground down to the taste of the workman. We prefer the lines of the angle slightly rounded off, which can easily be done on the grindstone, grinding the upper side only; the under side must be kept flat, and the edge produced must be sharp and slightly rough, but without a burr. An oilstone edge is not required, but the sort of edge obtained on a knife sharpened on a fine sandstone, so after the grinding rub it down with a ragstone—the very best stone for plough knives, and handy to use when the knife is in the plough. On putting the knife in, do not let the point project within the cheeks of the plough more than barely sufficient to go through the book, as, first, the longer the knife is the more liable it is to deviate from a straight line in cutting, and secondly, the wider open your plough is, the harder it is to work; you have greater power, and the plough runs more steadily, when the cheeks are drawn close together.

If your books have been properly shaped before pressing, they will want little knocking up. Place a broad strip of board between the book and the lower board at the head, close up into the groove, knock up on the head and see it stands upright, lay the book down on a cutting board on your left with the head flush to it and the back towards you; then pull down the front board from the head to the distance required for the cut-off, place a runner—a board with a perfectly straight and smooth upper edge—flush with the edge of the board, and lower the book into the press so that the runner is perfectly level with the right-hand cheek, and the book hangs perpendicularly between the press. Screw up both ends of the press equally and as tight as possible.

In cutting, cut from you, and each time you bring the plough back give a little turn to the screw, but it must be a very slight turn or the knife will dig in and tear instead of cutting. The plough must be held firmly and with an even pressure on to the press and against the guide, to prevent jumping, and it must be run clear of the back and foredge every time.

Having cut the head, take the book out of the press, remove the boards, turn the book over to the left, still keeping the back towards you, place the strip of millboard inside and lay on a cutting board as before; then, with a pencil, mark off from the right-hand end of the top board the distance required for two squares, draw the board down from the tail until the mark is level with the cut head, place the runner up flush with the edge of the board, put the book in the press as before and cut. It will be observed that we are here assuming the boards have previously been cut to size as described in the February number.

For the foredge, at both head and tail of each side of the book, prick through with a bodkin, or mark a line with a pencil, close up to the edge of the boards on the endpapers, stand the book up on its back, head towards you, and let the boards fall flat on your press; take a pair of steel trinities and pass them over the board, under the back and on to the board at the other side at the first and last bands, and knock up the back till it is perfectly flat; then place the cutting board up to the holes marked on the left hand of the book or the pencil mark, and the runner far enough below the holes or mark on the right hand to allow for the square—which at the foredge should be a compass hole larger than at the ends—withdraw the trinities and let the book into the press with the boards hanging down; great care must be taken to hold the book firmly so that it does not give way. If books are thick and heavy, a cord should be tied tightly round the book from head to tail, near the back and out of the way of the cutting boards, before the book is knocked flat, to hold it more securely. Screw up and cut as before.

We cannot lay too much stress upon the advisability of proceeding with method. If there are a number of books, cut all the heads first, all the tails next, and foredges last; the compasses set to a size will answer for each book of that size. Always keep the backs towards the worker in cutting ends, or they
may become torn; the body of the books must support the backs against the pressure of the knife. When cutting foreedges keep the heads towards the operator.

Never cut a book down if it may be avoided; rather leave a leaf untouched as a proof of your care in that direction. Some binders keep the shavings of valuable works in case of being charged with cropping. It is unfortunate that cropping has become so common that binders are compelled to see so much trouble, but where a leaf or two can be spared, that may be obviated.

If the knife dips, or runs up, watchfulness will soon discover it, and it may be remedied by padding between the upper part of the knife and the plough at the outer side of the cheek for a dip, or the inner side of the cheek for a run up; but a very little padding makes a great difference in a cut through.

[To be continued.]

The Bindery Foreman.

The mind of the young journeyman the position of foreman is an easy and enviable one. Nothing to do but to walk about and boss things. It seldom or never occurs to his verdant imagination that the art of bossing things rightly is one of the most difficult, and therefore, the rarest of faculties. When, however, the ambitious young journeyman obtains the long desired goal, he finds that it is not as easy as he pictured. He finds in the first place that responsibility is harder than working at the bench, and the responsibility for the hand work of other people is the worst kind of responsibility. He finds for the first time in his life that the dictum of the Chelsea philosopher is correct, and that mankind is composed mainly of fools; it also seems to him that there is more than the proper proportion in his workshop.

Of course, after awhile he gets more or less used to it (generally less), and takes his trouble not quite so hardly as he did at first, but however lightly he may take his work he never recurs to his former opinion: that the duties of a foreman are easy.

The truth is, that the combination of qualities necessary to make a good foreman of a bindery—and probably any other kind of foreman—would go to ensure success in any occupation in life. The bindery foreman must be prompt in attendance, he must be a quick thinker, a rapid calculator, must have great tact (most rare of gifts) in dealing with his men; he must be prompt in the fulfilment of his promises and quick to make them, a good disciplinarian, of quick perception and a strong sense of justice; in addition to these manifold gifts he must be a master of all branches of his trade, or at least must be practically efficient at most of them, and know something of all of them.

It may be said, with truth, that not many foremen possess all these qualifications. That of course is so; it is only another way of saying that no man is perfect. But if a foreman has not the whole of the necessary qualities, he must have the most of them, or he will not hold his position long.

A great deal of the small miseries of the foreman life comes from the presence of careless or simply stupid workmen. An incompetent cutter can do perhaps as much mischief in this way as any man in the shop, and his bad work is irreparable. Two or three mischievous boys in a bindery are also a source of employment to a foreman. Hunting fleas is not a congenial occupation for most men, but if we had the choice between the pursuit and watching a lot of boys, we would unhesitatingly choose the former.

If the foreman has also charge of the girls, his weariness of spirit is not lessened, and if he does his work through a forewoman he will find it but little better. The worst feature in dealing with girls in the workshop is the necessity of restraining his inclination to use strong language, which language (not necessarily profane) is one of the best safety valves for the letting out of a superfluity of the steam of excitement in the masculine animal.

But of all the vexations and hard-to-get-over difficulties to which a foreman is liable, bad and insufficient tools and machinery are the worst. A bad or worn-out cutting machine is not to be despised as a help to an early grave. A paging machine in bad condition is an article which none but the most cruel of men would inflict on his worst enemy. In fact, a bad paging machine is one of the worst instruments of torture.

Of course no man gets all these various inflictions at once, human nature could not stand them, but it is marvellous what a number of these may happen at the same time, and it seems as if they happened always at the least desirable time, just when a man is not feeling good.

Foremen, as a class, pull through somehow, partially by reason of a strong constitution, and partly that Dame Nature has made laws which effect the mentality of a man in the same way the epidermis of the mule is effected. The mind, like the skin, gets callous and hardened by repeated blows and attacks, but it hurts like the deuce before the callous period is reached.—The American Bookbinder.

"The Nine Circles" is the somewhat weird title of a gruesome book, giving records of English and foreign vivisection, compiled by G. M. Rhodes (Society for the Protection of Animals from Vivisection, London; 1/-). In nine "circles" or sections the various methods of vivisection are detailed, and form an epitome of all the shades of torture and refinements of cruelty which it is possible to conceive. The list is a very full one and references and dates are given with each statement, making out a powerful case against the physiologists and scientists approving of these methods, while the introduction of Dr. Berdoe, setting forth the opinions of authorities on the value of the various anaesthetics used, with the conclusion come to regarding the small value of these means to either alleviate or remove pain, forms a strong testimony to the society's claims. To the general reader the reading of the statements is simply nauseous and the arguments are unanswerable. The book itself is well arranged and printed, looking business-like in its dark cloth cover with a broad blood-red band across the centre.
On Forwarding.

Before proceeding further with the forwarding of a book, if the edges are to be marbled or gilt they should be sent out to be done, as in most places it is both better and cheaper to have this work performed by specialists, but for those who desire to execute their own work, special articles dealing with marbling and gilding are in course of preparation.

Coloured edges are, however, usually done by the forwarder, who mixes his own colours for the purpose. These colours may be obtained of any oil and colour man, or dealers in bookbinders' materials, ready ground red, yellow, and green being most in use. Judson's dyes are being much used on common work, but the old methods are the best, and make the neatest edge. For red edges, use vermilion; for yellow, either king's yellow or gamboge; and for green add to the yellow chosen either indigo, or some blue ink, until the required shade is obtained, or to lighten the shade add a little whiting. Mix the colours thoroughly with paste and glaire in a small pipkin, and then thin down with water to the consistency and tone required, adding a drop or two of oil, and working it in well with the colours. For colouring, knock up the book at the end so that the boards are flush with the edges, and lay it on the side of the press; then holding the book firmly down, with the sponge dipped in the colour, commence in the centre and rub the colour over the edge in even sweeps, clearing back and foredge each time gently, to avoid leaving any pool forming on the foredge. The foredge must be fanned out slightly by throwing back the boards and forcing the back down towards the press, thus leaving a narrow edge of the paper exposed, but care must be taken to hold the book firmly down with a straight edge or runner on top and up to the edges, to prevent the colour from running in.

If Judson's dyes are to be used, they must be prepared by mixing with hot water till the required shade is obtained, when they should be laid on with a sponge tied to a piece of stick. Do not use the sponge with your fingers, because these dyes are highly poisonous, and the acids in them bite quickly, and make the fingers very sore.

Sprinkled edges are usually either of reddish brown or green, according to which colour of Cobb's paper is used for the ends. For green, use the colour as before advised; for the other colour use burnt umber and red ochre, mix with paste and thin down with water in a wooden tub or large basin. To test the consistency sprinkle a little on a piece of paper and let it dry, then rub with the finger; if the colour smears it is either too thick or there is not enough paste in it. In coloured work a little colour may be expected to rub off, but for sprinkled, it should be fast, or in burnishing the effect is destroyed. Use a large brush, and if there is more than one book tie them up together, keeping the edges to be sprinkled level, sprinkle foredges first, and when they are done, turn up the ends with the backs towards you to prevent more colour falling on the foredges and deepening the tone. First beat out the brush over the tub, with a millboard between you and the tub, until the sprinkle falls in a very fine shower; then wipe the stick and the rim of the brush with a piece of rag and sprinkle the books, holding the brush as high as your head, turning the stick occasionally and rubbing through the brush to prevent heavy drops forming, which would spoil the neat aspect of the sprinkle. The finer the sprinkle is the better it looks.

If your colour has been made some time give it a stir up with your stick, not the brush, as the colour settles, and will clog the brush, but after it has been stirred up, each time you dip your brush you should give it a swirl round.

Many variations of sprinkling have been tried at different times, as, with a variety of colours on one edge, or a gold sprinkle, or with small white spots made by strewing rice, sand, spangles, or warm wax upon the edges prior to sprinkling; or by placing fern leaves or cut paper patterns on the edges, in much the same manner as for panel calf, but none of these elaborations have succeeded in winning popularity so well as the plain brown and green finely sprinkled edge, which is always suitable and neat for plain work. There is one edge, however, which looks very well, though rarely seen. We take the directions from John Hannett's Bibliopagi:

"Fancy Marble. Take a small portion of rose-pink, green, or any vegetable colour, and well brighten it on the slab with the muller till reduced to a fine powder. Prepare a dish, or other vessel large enough to admit the foredge of the book, and filled with clear water; then with the palette knife mix a portion of the colour with spirits of wine, and convey with the knife some of the same to the middle of the vessel, and allow it to flow gradually on the surface of the water. The spirits of wine will cause it to spread in a diversity of pleasing forms, when the edge of the book must be dipped in the same manner as for marbling, and a very neat pattern will be produced at a trifling cost, as no more colour need be mixed than wanted at each time."

Great care must be used to touch the water very lightly with the edge of the knife, for if the colour should fall heavily it will sink to the bottom, as with mineral colours; the colour, if properly applied, will fly over the surface of the water rapidly, and with a little experience you will be able to imitate the old Turkish marbles easily.

Black edges. The book should be put in the press with backing boards level with the edges and screwed up tightly; then sponge the edge over with black ink. Next rub a mixture of ivory black or lamp black and
paste over the edge with the finger, and rub it down well with the palm of the hand till it is thoroughly black and polished. When dry, give a hard brush and burnish as usual.

BURNISHING coloured edges should be done before the book is covered, as some of the colour invariably comes off, but for sprinkled edges it is usually reserved until the book is ready for sideing and pasting down, and in large shops is given to the assistant finisher. Screw the books up tightly in the press between backing boards with smooth edges; if there are more than one of the same size two or three may be turned back and forehand for the ends. The foreedges must be done singly, or with a stout board between them. Rub off any surface colour with the fingers, and give the edge a gentle rub with a bees-waxed rag, or sometimes a little grease taken from the hair with the fingers is enough, then, gently at first to glaze the colour, pass the agate and down the edge, increasing the pressure as the colour is glazed. If you commence too heavily you may tear the colour off. For the foreedges a tooth burnisher must be used, and it is best for the ends of single books, but for a number a flat burnisher gets over the ground more quickly.

[To be continued.]

---

A BLANK BOOK INVENTION.—An improvement in blank books has been patented that consists in the peculiar construction of a detachable blotter secured to the back of the book. The book comprises the usual leaves, front cover and back cover, hinged together in the usual manner, preferably covered with leather as for a good quality of blank book. The leather on the back cover extends beyond the ends of the cover and is turned inward and secured to a leaf of paper or cardboard, forming between that leaf and the back cover a pocket. The leaf is preferably covered by a thin sheet of paper to give a finished appearance to the inside of the cover. A blotter and securing strip, preferably of cardboard or similar material, of the same length as the blotter and secured thereto by a wide flexible hinge strip, the width of the strip being substantially equal to the thickness of the leaves of the book, is inserted into the pocket, leaving the hinge and the blotter extending outside. The blotter may be turned into the book at any page, either at the back or front of the book, as the hinge is of sufficient width to span all the leaves and allow the insertion of the blotter at the front or at any other point.—Paper Trade.

So great a variety of presses is in constant use throughout the greater number of our trades, that it is well to know of a reliable firm catering specially for this branch of machinery. Messrs. J. & F. Howard, Britannia Iron Works, Bedford, who are primarily devoted to agricultural interests, make a very complete series of presses, and it would be well for intending purchasers of these useful machines to obtain copies of the firm’s press catalogue.

---

New Books.

"PRAIRIE FOLKS," by Hamlin Garland. One of the most delightfully fresh studies of western life that the busy man of business can take up for a change. It is redolent of an Iowa air, the sloppy farmyards, the "lowl," killings, pile stackings, the "ripe grasses out of which the bobolinks spring," the log churches, the sleigh rides and sociables. The volume contains nine short stories, of which "Uncle Ethan Ripley's speculation in Patent Medicines," though full of fun, is not the best. In "Older Pilt" we have a new minister who tries his hand at being, like the Apostle Paul, "all things to all men," and who gets around Bacon, a farmer who has already refused a donation towards his support, to ask him home, where he soon makes himself felt. At supper "the hired man in his shirt sleeves, and smelling frightfully of tobacco and sweat (as did Bacon) sat with mouth open, forgetting to eat, in his absorbing interest in the minister's yarns." When the Elder starts on family devotion, however, Bacon walks out, but the hired man guesses he'll see the thing through, as "It ain't just square to leave the women folks to bear the brunt of it." The fight in the school-house, when the Elder pitches out the strongest of the rowdies who go to make fun, and get full of it, is a vigorous pen picture, and the result of the "good deed" brought forth fruit in due season. He quietens down: "No more games with the boys, no more poking the girls under the chin!" When he asked for a chew of tobacco now, it was with an air which said "I ask it as sustenance that will give me strength for the Lord's service, as if the demands of the flesh had weakened the spirit." How he eventually found himself out a fraud, and honestly confessed it must be left to the reader. In "Daddy Deering" there is much mingled fun and pathos, an old man sneering at the boys and boasting of his speed and strength and being a match for any of them, yet stopping to complain "I'm short o' breath a little, that's all." The scene when he fiddles "Honest John" for the dancers, and finally for a wager dances one of the youngsters down, finishing up with a break-down to the tune of "Leather Breeches" to show he is not used up, is one of the most felicitous sketches in the book. But the old fellow chops his foot with an axe, and while in bed suffering from the pain the indomitable old man will not give way: "It's not the pain, it's the dum awkwardness. I've chopped all my life; I can let an axe up in to the maker's name, and hew to a hair line; yes, sir! It was just them dum new mittens my wife made; they was s' slippery, he ended with a groan." Very few men can deal with such scenes with the force and lightness of Hamlin Garland.

"WITH CAPTAIN STAIRS TO KATANGA," by Joseph A. Maloney, L.R.C.P., F.R.G.S. A remarkably clear and concise account of a journey into a remarkable country by an expedition organised by the Katanga Company, an off-shoot of the Commercial and
REGISTERS have now very largely gone out of use, but for Bibles and devotional works they are still required, and are sometimes specially ordered for works of reference. For cheap work where only a very narrow ribbon is wanted the ends are commonly tipped with glue and forced between the leaves close in to the back, but this is a very poor and make-shift style. All registers should be glued to the back of the book before the headband is put on, the ribbon laid flat between the leaves and turned up at the ends into another section to preserve them from being soiled. All gilt-edged work should then be capped up to keep the edges clean during the remaining processes.

HEADBANDS. For common work an ordinary home made headband is often used. It is usually made in strips of about 18 inches in length, thus: Cut strips of striped muslin or bookbinder's cloth about one inch in width, paste a wooden board all over, and lay several strips down on the paste, then paste on top of the strips, next take lengths of string and lay a length along each strip folding over the strip to cover the string, and pinching up the material with the thumb nail or folder into a long even roll, then lift and lay out to dry. For better work patent headband may be bought with a woven pattern in silk or cotton. It is sold in pieces of twelve yards, varying in price according to size, six sizes from 10s. to folio, at from 2s. to 4s. 3d. for silk, or 2s. 2d. to 2s. 3d. for cotton. Before using this, give it a good pasting over the back with a paste brush and let it dry, this will prevent it fraying out and stiffen it. The best patent headband has a strip of cane run through it, which helps to make a very nice firm head. Each of these headbands must be stuck on the back with glue, but for best work the headbands should be worked on the book. This is usually women's employment, but for those who wish to know how to do it we shall give directions.

In the olden time the headband was, as its name implies, as much a band on which the book was sewn as any other on the back, forming also the kettle stitch, and materially added to the strength of the book, the ends being pegged into the wooden boards, or into grooves along the edges of the boards, the latter style being peculiar to the bindings of Eastern Europe and the further shores of the Mediterranean. With the advent of paper boards however, this style of headband went out of use, and it became simply a sewn on ornament, as it remains at the present day.

First you must prepare something as a body or shape, and nothing is better than vellum; any old vellum will do. It should be damp to make it lie flat and then pasted and lined, or two pieces passed together, or with a thin piece of board between according to the size of the books you wish to headband. Then lay the vellum under a weight till dry, when it should be cut into strips varying in width in accordance with the size of the squares. Each strip must be a little less in width than the squares of the book it is to be used upon, to allow of the thickness of the silk, and of the leather used for setting the head. Your silks must be equal in size and the number of strands, and should be of such colours as will best harmonise or contrast with the colour of the intended cover; we will assume amber and blue.

Take your book by the head in your left hand, back up to you, and place it in a press with the foredge corner of the tail depressed, that is to say, put it in the press cornerwise, so that the upper corner of the foredge is free of the press, and the back easy to get at. Take a length of each coloured silk and tie the two ends together with a small knot, then thread the amber silk into a long fine needle and push the needle into the middle of the first section, or if that is very thin, say the second section on the left hand, passing it out at the back just beneath the kettle stitch, and draw the silk through until the knot is drawn up close into the section at the back, bring the needle over towards you and pass it through again at about the same place, when you will have made a loop, into which insert the strip of vellum which must be slightly rounded to match the book's curvature. Take the amber silk in your left hand and the blue in your right, keep the left depressed and pass the blue across the amber, under the band, over it towards you and into your left hand; take the blue in your right, pass it over the amber, under the band, and over it towards you; and so on until the band is covered with alternate threads of blue and amber, or you may make a double thread of either of the colours according to fancy.

As you go on, see that the threads are kept close together, and secure the strip of vellum to the back by sewing through the sections in three or four places at intervals according to the thickness of the book. Finish off by passing the needle twice through the section below the kettle stitch as at the commencement, then pass the blue round the amber and under the vellum and tie the two ends in a knot. The ends of the vellum must afterwards be cut off to the width of the back.

All this is as simple as A B C to talk about, but when you try to put it into practice you will probably come to the conclusion that you are the most clumsy and awkward creature under the sun. A great deal of skill and delicacy is required to make a good headband; the threads must be held with a very equal tension, they must be handled very tenderly to prevent fraying the silk or soiling it, and great care must be taken to keep the vellum strip down to the edge of the book and to prevent the twist, which should form a kind of heading or roll, from slipping beneath the vellum. It is work ill suited to men who have to do hard work that roughens the skin on the fingers, for rough skin is fatal to the beauty of the silk.
Double headbands differ only from the single in being composed of two strips, a large and small one, and in the manner of passing the silk. Commence in the same way as before, but when the strips are fastened, the smaller above the larger, the blue silk is taken with the right hand and passed above the amber, under the bottom or larger strip, brought out under the upper or small one, carried over it, brought out again over the large strip, and the twist or braid formed as before directed, near to the edge of the book. The amber silk is then passed in the same way, and so on alternately till the whole is completed.

[To be continued.]

Tabitha Apps's Grave.

I ran across the grave of Tabitha Apps at Slindon the other day. It was sunken down, sideways, with the settling of the earth, and proudly sustained at the head a lob-sided stone slab, that bore testimony to the sad and weary existence of Tabitha, who, after seeking rest "vainly across the far seas, in America's northern clime," had evidently given up her adopted home as a bad job, and returned in 1769 to die in Slindon, the parish of her girlhood. She must have suffered intensely, poor Tabitha Apps, from what she called "tiredness," but what we dub ennui. "She was born tired," that was evident; and this fact, and the relief she experienced in casting off her mortal coil, are all most touchingly recorded in the following graceful verse on the lop-sided tombstone aforementioned:

"Here lies a poor woman who always was tired,
Who lived in a house where help was not hired.
Her last words on earth: "Dear friends, I am going
Where washing ain't done, nor sweeping, nor sewing.
But everything there is exact to my wishes,
For where they don't eat there's no washing of dishes;
I'll be where loud anthems will always be ringing.
But, having no voice, I'll get many a distant singing.
Don't mourn for me now, don't mourn for me never,
I'm going to do nothing for ever and ever."

In an Old Book Store.

Rows of volumes, old and dusty,
Big and little, worn and musty,
Standing in serried ranks,
Far too old for tricks and pranks,
All waiting for the bookworm cranks.
Some bear marks of faded gentility,
Some the imprimatur of nobility,
And others an air of chronic debility.
Full-staffed regiments these,
Covers gone and pages, leaves
Yellowed by many years,
Stained perhaps with once hot tears,
Soiled by fingers that now await,
The opening of the books of fate.
Here Horace and Livy and Dante
Stand on intimate terms with Hugo and Sand,
While Virgil's "Eclogues" and George's charming
Nestle by Greely's "What I know of Farming;
And rocky Scio's grand old bard
Is shelved with the lectures of Artemus Ward.
Stately folios once worth much pelf,
Sink by gravity's law to the lowest shelf.
What well-stuffed heads our ancestors carried,
If over these learned tomes they tarried!
What bushels of chaff they waded through
To gather the grains of wheat so few!
Perhaps they gather more, at last,
Than we who have so often passed
The golden grain of truth, and looked
For opinions ready made, and cooked
To suit a taste for confectionery,
Affected fine and literary.

Well, here they stand, battered and torn,
Fed up and cracked, and old and worn,
Lost to the distant time and shore,
From centuries-numbering three or four,
Full of quaint and curious lore
Of theories and hypothesis
Dead long ago, too dead to sneeze;
Of science once most proudly stated
Now as romance or humour rated;
Laws of which no man afraid is,
Theology as sulphurous as Hades,
And of medicine that of no aid is,
Yet burning words there are to give
Their writer dead a name to live
Power over living men;
To straiten or enlarge their ken.
They wait, intent, and do not stir
To lure the passing customer.
He seems to hear their silent cry,
And stays to look with greedy eye,
While they their secret magic ply
O'er him they weave their magic spell,
Till he is fettered sure and well
By the old, the new, the near, the far,
The false, the true, things that are not and are;
And from the spell he cannot break,
Nor off the strong delusion shake;
So he leaves a part of his well-worn pelf,
And a vacant space on the dealer's shelf.
Away to his room like a miser he
Carries his latest discovery
And in his study there live again
The old time books and the old time men.

—Chicago Sunday Evening Herald.
On Forwarding.

The great majority of books now bound for the library have hollow backs, which lifting the leather apart from the backs of the books when being opened, preserves the smoothness of the leather and the solidity of the finishing, besides keeping the book in a good shape, better than can be secured by tight backs. Before lining-up, if hand-worked headbands are employed, they should be touched over with glue on the backs, and a narrow strip of brown paper put over them securing them to the back, then lay the back on your press, holding the book in your left hand by the foreedge, and rolling the back on the press mould the headband into the exact shape of the book with the point of a folder. When dry cut off the ends projecting and split off the top surface of the paper, leaving only a thin fibrous surface to keep the headband in position.

LININGS. Commercialism has a great deal to answer for in the deterioration of the work of binding, and especially in the obliteraion from men’s minds of the reasons why certain things are done. The tendency to do quickly instead of doing well, brings about a uniformity of practice in which there is little thought, and so, in lining-up, few think of the importance of the lining, that there is something beyond the mere sticking of the paper on the back to form a hollow. Where is the strength most wanted? How can it best be applied? What material will give the greatest strength? These are questions which every intelligent workman should ask himself on every fresh book he has before him. A single sheet of stiff brown paper, or printed rubbish made of wood pulp, or hard cartridge, applied equally all over the back is in reality not adding equal strength, because the proportion applied is not distributed according to the strain required, and stiffening the sides weakens the centre, making it even more liable to break than if nothing had been added. The greatest strain in every book lies in the centre of the back, and in all backs evenly lined you will find the centre opens comparatively easily, and the beginning and ends stiffly. Why? Because the beginning and end sections have been braced together beyond the necessity of the strain, and the centre not enough. The heavier the paper the more is this observable, and yet the great mass of binders go blindly on, thinking that their only consideration should be how many linings to put on, and how many off, and their utmost perception of the true inwardness of the situation is the scant practice of putting the second or third lining a little further in than the first, affecting at most but two or three sections from either side on a thick book. Against this unthinking practice and its dire results we would ask all those who may have an opportunity of examining Francis Bedford’s work to note how even is the strain on all parts of the back. We are not going to give the whole credit of his work to Bedford, it was his workmen who introduced the system of graduated linings which we wish to commend, but he was practical enough to see the benefit of the practice; nor are we exactly in favour of the degree to which he fastened up his backs. We think books are intended for use as well as appearance, but undoubtedly the work known as Bedford’s is a model for the modern binder.

Another question every thinking binder should ask himself is: What is the composition of the paper I have to work upon? which brings us to the consideration of what material will give the greatest strength. Stiff and brittle wood fibre paper must not be lined with paper of a similar composition. You may not be able to determine the presence of wood pulp definitely, but you can easily judge whether the paper you are going to use is harsh and brittle or not, and that should be sufficient to guide you. Harsh papers should not be applied to harsh papers; it is bad enough to have such papers in the book itself. Your care must be always to select fibrous papers with long fibres for lining purposes, such as are made from rags. Brown paper is of many qualities. Tear a piece, and the paper that will split most in tearing is the paper that will give you the best return in its use, the length of the fibre will be shown in the distance it will split. Some books would be stronger lined with two or three layers of tissue than your magazine wrapper rubbish. The power of fibrous tissue over the hardest board is a lesson not to be despised, and remember it is not the thickness of the material, but its elasticity and binding power which should determine its worth for linings.

But look at the time three or four thin linings would take!

Oh, yes, all true workmanship takes time!

If Bedford had not taken time, Time would have forgotten him, he would not have been known now, nor would his work have been prized by those who knew him in life. There are scores of unthinking duffers to every man who honestly tries to do his best, and scores more to every man who succeeds in excellent workmanship, yet the same door is open to all. The best advice we can give is that given to the man who wanted to know how to mix his colours for marbluing, “Mix brains with your colours.” Slop binders are a curse upon the whole community; they are not satisfied with what they get for their rubbish, and the rubbish gives no satisfaction to anyone else.

The use of a fibre in strengthening the back is not lost sight of even by cloth binders, whose bindings are avowedly only for temporary use, the presentation of a book in a readable form; they use mull or bookbinders’ muslin, every thread of which has a binding power far in excess of its flimsy appearance. On very heavy work book muslin may be used with advantage as a first lining, leaving a margin on each side as wide as the back, so that after the hollow has been put on, each side of the muslin may be cut to join diagonally, that is to say, the margin on the left hand should be folded over the hollow and cut from the left hand corner at the tail to the right hand corner of the head, and the other side to match, so that both will lay on the back without overlapping or wrinkles.
When lining up always use a good thin glue as hot as possible, and work the brush as little as possible to prevent frothing; also see that you do not leave any surplus glue along the edge of the grooves. Let your first lining be long enough to cover the headbands if they are hand-worked on the book, but if they are stuck on cut the paper so that it just comes up to the edges of the material of which the headband is made. Cut a straight edge to your paper on one side and lay the straight edge close up to the edge of the groove, rub down the paper, fold over to the left, and cut off cleanly with a sharp knife, then give the lining a thorough rubbing down with the folding stick. When dry, take a piece of sandpaper and rub the lining with that to take off any lumps or inequalities, and line again, this time bringing the paper a little way in from the outer edge of the back on each side, but extending beyond the headbands. When dry, rub down again with sandpaper, wearing down the edges of the paper to nothing in order to prevent ridges. Then again line the back, again bringing the paper a little further in than the second lining, and repeat the operation according to what you think the weight and size of the book demands in extra strength, but each time using the smallest amount of glue you can to secure the thorough adhesion of the one lining to the other. Owing to the sandpapering there will not be so much paper on the back as you might at first suppose with three or four successive first linings, but the strength will be more proportionately applied to the backs at the parts where most strain occurs.

To make the hollow, glue the back freely, take a piece of paper several times wider than the back and a little longer, lay the straight edge down to the left, rub down lightly, fold over to the left, and crease even with the groove, draw the folded paper off, lay it on your press and fold over again, bringing the glued part down on to the paper. You have now one single and one double thickness of the width of the back, reverse the paper and lay the single side to the left on the back, rub down thoroughly, fold over to the left, and cut off with a sharp knife close to the edge of the groove. That is the process for making an Oxford hollow.

In making hollows it is usual to balance the number of linings on a back by an equal number off, but in working a graduated lining you must use discretion; about four graduated linings on would not need more than three off at most. It is a common practice in making hollows on the back after the first lining to bring the paper for the hollow a little in from the left side, then fold over from right to left, leaving the folded piece to catch on the glued margin of the left side, then glue again and fold over to the right and cut off. But this is a very slop practice, inasmuch as the back does not open on the left side right up to the groove, and the extra thickness of glue in the fold of the off paper leaves it brittle and the more liable to break away than when the fold of the paper is free from glue.

For tight backs, all glue must be thoroughly removed from the backs before lining; if for calf, a brown paper lining should be first put on, and sandpapered down as far as you can go without leaving holes in the paper, so that no stain of the glue shall go through the cover. If for morocco, and the work is light, you may put the leather right on to the back, but it is generally best to line with leather first, using a thickness of morocco or calf according to the weight of the book. Line with glue, the fleshy part of the leather towards the back; when dry, sandpaper down till thoroughly roughed all over and thinned down on each side almost to the back. Some binders use Russia for lining, but there is little durability in this leather; law calf or rough calf is better, but the best is a soft morocco.

After linings and hollows are dry, knock up the boards flush with the head, and with the shears cut off the projecting parts of the linings close to the headband, then take off the sharpness of each corner.

If books are to be tied up, as they should be in all good whole-bound work, it is best now to slip a piece of board under the corners of the boards next the back, and cut off a long narrow piece shaped like a half of the letter V; it only requires a very slight narrow cut with a sharp knife, which should not go right through the board but only part way, the object being to give a little play in the joint. For books not tied up, a small similarly shaped nick should be cut inside the boards, but not enough to spoil the square appearance. You must remember the finisher may need to run a square line border close to the edge of the board, and if you cut off too much you may render it impossible for him to mitre his lines; in any case a deep cut is not neat. The very barest shade of board cut off is sufficient to counterbalance the thickness of the pared leather on the turn in.

In banding, if for a set of books, always mark up from the tail, but as for a single book, mark out your distances from the head first, then take the spaces determined upon and mark up from the tail, because your books will stand upon the tail, and will match better if marked from that end. For an ordinary full gilt panel back, or a plain book, let the tail be one-third as long again as for the other panels; or half as long again if you want to allow for a small panel for the place and date of publication. For Roger Payne style, allow for a space over and above the foregoing at both head and tail equal to the width of the band. For antique work, especially if tied on the side, whether four or five bands, the spaces should be equal all down the back, or the ties will appear out of proportion to the sides, but as the finishing can only commence on the back of the book and not over the headbands, the width of the headband must be allowed from each end of the back.
The best material for bands is undoubtedly leather, either used by itself or lined with brown paper stuck on with paste, and given a good pressing in the standing press till dry; which can be better and more sharply nipped up than any other stuff.

Cord is also used, but the rough and knotty parts must be thrown away, and even then it is only suitable for antique work where thick covers are used.

For cheaper work, thin strawboard is often used, or layers of brown paper pasted together and pressed as before mentioned, but this must not be used till thoroughly dry, or the band stuff will split when bent round on to the backs. This may be cut up into various widths by means of the guillotine or the board machine. For leather bands it is best to cut into widths by means of a sharp knife and straight edge.

[To be continued.]

Are Public Libraries Injuring the Book Trade?

A vexed question has again cropped up. A correspondent, writing on the subject of free libraries, discusses their effect upon the book trade. In his opinion it has been distinctly prejudicial. He points out that whereas, in times gone by, among people occupying a fairly comfortable position, you would invariably find a small library one of the household possessions, you may now visit family after family without seeing anything more indicative of reading than the daily newspaper, or perhaps a yellow-backed novel, lying about the room. The reason for this, to his mind, is obvious. Paterfamilias pays his rates, and naturally does not see why he should not take advantage of the opportunities afforded him by the State; so both he and his offspring go to the nearest free library for their literary food rather than purchase for themselves at the bookseller's. To argue from this that the publisher is the sufferer requires but a slight display of logic. If a book which should be bought by, say, fifty people is only purchased by one, the remainder being free readers, it naturally follows that the sale of the work is one-fiftieth of what it otherwise would be. And in so far our correspondent triumphantly vindicates his position.

But he argues, we think, on a false basis, and takes but a very limited view of the question. The great majority of people who use free libraries are not in a position to buy books for themselves, and in their houses it was never possible at any time to find volumes that could by the greatest stretch of imagination be termed a library: indeed, as a rule they were completely destitute of literary embellishment. Even the ordinary five or six shilling volume was quite out of the reach of such people, supposing they had a taste for reading—which was certainly not always the case; and the more expensive work of reference was unknown to them. But with the spread of education matters have greatly changed, and the love of reading has widely increased. In this revolution the free libraries have acted no mean part, and by placing books within the reach of those who would otherwise have no means of procuring them, they have encouraged a love of literature that cannot fail to have been of assistance to the book trade. A man, as a rule, having taken to books, cultivates a liking, amounting in time almost to veneration, for a certain author. He is then not content to see his author's volumes on the shelf of a public library; he wishes to possess some for himself, and his admiration leads him to have them neatly bound. So the foundation for a library is laid, and its future limitations are difficult to calculate, for the love of books when once started tends to rapidly grow and increase. In this fostering of the public inclination the free libraries have done a good work, and though frequent abuses of these institutions may occur, it is not difficult to see that their general tendency is to promote the spread of reading and education, and thus increase the production of books.

While on the subject, it may not be uninteresting to point out, as apart from the influence of free libraries on the book trade, that according to the experience of the Massachusetts Free Public Library Commission, appointed for the purpose of inquiring into library administration in some of the smaller and poorer towns within that State, the taste for good reading is markedly apparent in public libraries; and from this fact another argument in their favour is easily deducible. Of course the chief demand is for fiction, but this is scarcely to be wondered at, seeing what humdrum lives the majority of people lead, and it is rather matter for congratulation that the fiction preferred should be of such excellent quality. It is not surprising to find that the most popular book in the American libraries is "Uncle Tom's Cabin." "Wherever lists of works having the widest circulation are kept, this book usually heads them." "Ben Hur" exercises a remarkable fascination, and among works by modern authors, we understand that "Lorna Doone" and the novels of William Black have a large circulation. Many of the stories of a bygone generation, such as "The Wide, Wide World" and "Queechy," are still in request, while successes of more recent date, after a remarkable run for the time being, have ceased apparently to attract. There is a steady demand for Scott's novels, but Dickens, if one may judge by this report, is on the down line. Next to fiction, biography, "especially autobiography, which exhibits with minuteness the personality of the subject," is most largely in request, and books of travel find great favour. The good old classics of English literature are not so widely read as they were a generation ago, and the charms of style seem to have lost their attraction for the present type of reader. But take it for all in all, the demand for books at the free libraries shows a remarkably healthy tendency, and the effect can scarcely fail to be of advantage to the coming generation. — Publishers' Circular.

The annual outing of the Toronto, Canada, Bookbinders' Union took place on August 12th, when over one thousand excursionists went to Hamilton by boat. The outing was a great success for the Union.
On Forwarding.

Before sticking on the bands, the hollows should be cut up; that is to say, they must be slit in the fold at both head and tail with a sharp, pointed knife, in order to allow of the leather forming the turn-in to pass inside the hollow and through the folded edges. Some binders have the idea that turning-in the leather onto the leather, so that only the hollows show, squarely and neat, when the book is opened, is the better plan, but that part does not show, and even if it does, it may be neat enough if the leather is properly pared; on the other hand, while they are so particular about neatness where it is little looked for, if a back so turned-in is examined, it is generally lumpy about the head and tail, the two thicknesses of leather being brought together. Besides this, when the contraction of the leather in drying takes place, there is no proper support for the set head, so that it draws, and eventually gapes, unless set loosely; whereas when the leather is turned-in inside the hollow, the hollow serves to keep the outer part of the leather well up to the edge of the back, and in drying there is less strain on the set head. The other plan is only devised for cheapness.

Having marked up for bands, and cut out the strips to be used, if your book is to be covered in morocco you may very lightly glue the hollow all over, and place the strips up to the holes marked, press them down at the extreme points with your thumbs, and afterwards pare them off to the edges of the hollow with a sharp knife, so as to form a slight bevel.

For calf, however, this method must not be used, because the glue would show through, especially upon light colours. Bands for calf work may be prepared as previously directed, but before cutting up, a thick coating of glue should be given to the under side of the material, which must be allowed to dry. When the bands have been cut up to the width desired, they may be moistened with warm water sufficiently to soften the glue and make them stick; or, a number of pieces may be pasted with stout paste, cut in lengths a little longer than the back is wide, stuck on and left to set; then pare off to a bevel as before stated.

For leathers such as paste-grain, roan, and German calf, having a specially prepared surface, paste cannot be used without more or less affecting the surface beauty. Paste-grain and roan should both be glued for covering, and fingered as little as possible. It is an entirely false notion that these leathers may be washed over to remove dirt, and that a coat of varnish hides all the damage done. The extreme ignorance of some writers upon this subject may be exemplified by a quotation from an American journal, which is taken from some notes especially written for that journal, and shows the depth of ignorance to which the writer has sunk:—"For paste-grain roan (often called French morocco), wash up with plain water; use one coat of size; tools used moderately hot; varnish after finishing."

This is too common a perversion of plain common-sense ideas. All leathers receive their highest finish from the maker, and only in morocco can anything be done to improve it as it comes to the binder. In morocco this is only needed because some of the finish, the height and sharpness of the grain, is partially lost in handling and chafing of the skins, and it may be renewed by hand graining. But with leathers like paste-grain, roan, and German calf, there is no known method of restoring the lost beauty of the maker's finish; varnish is but a very poor makeshift.

Paste-grain and roan must be covered with glue, and without a finger-mark. German calf can only be successfully used for loose-sided work, where neither paste nor glue touches it; that is to say, it is only turned in upon the board with glue, lightly used.

Calf should be covered with paste, and Persian may be, but glue is best for Persian if the appearance is to be preserved; with careful using, however, paste may also be used for Persian. The common practice is first to damp the covers—we would almost say, soak them—then to paste several and lay them together, paste to paste and surface to surface, to soak; a very unwise practice. When they are separated it is found that the paste has adhered to one or the other of the covers in flat dabs at intervals; here to one cover, there to another, which means that the cover is unevenly pasted. Now don't adopt such a plan. Don't wet your covers. Paste them dry, being careful not to mess the surface, and lay them out singly on a clean board or paper for a little while, to soak before covering.

Morocco should always be grained before covering, unless it is desired to imitate some old book on which the grain has been lost. If for crushed levant, it will be found that by regraining and letting the cover dry out naturally, there is more height to crush out, but when the cover is fixed, it will be crushed out within its own area, the area of each pip, and the marking is more pleasingly preserved, no matter what pressure is given; whereas, if not regrained, much of the height of the pips or grain has been drawn into the flat surface, and the marking becomes less distinct. Such covers should not be dried by any artificial means; but for covers where the natural grain is to be kept, after graining, a gentle firing will so harden the grain produced that it will fix it so long as the skin endures.

Graining may be done in the skin, but it is better to do it in the cover, after paring. First wet the skin with warm water on the surface side until evenly wetted but not soaked—that is to say, the water must have penetrated throughout, but not enough to be wrung out. Lay out on a flat mahogany table, or board, and use a flat slab of cork with a band across to fit over the back of the hand. If straight grain, or grained, commence to work from the corners, turning up and over, first one side and then another, and pushing towards the centre and opposite corner with a slight pressure on the moving fold. When thus you have gone over the whole cover, finish off by rolling over the sides and ends straight across, to give a roundness to the grain, and lay out to dry; or, if it is to be dried by fire, pin the cover on to a board and place it before a moderate heat.
On Forwarding.

Before proceeding further with the question of covering, we should like to give a hint upon the buying of leather, a point upon which some of our provincial friends at least appear to need some advice. Their difficulty is in obtaining really first-class skins, especially in levants, at any price; and several letters sent to us tell the same story. The reason for this is that Paris usually gets the first pick of levants, and of those which come to this country the buyers in London get the next choice, so that by the time these two parties are done, the skins left to send to the provinces are usually of inferior quality.

To get a first-class skin of any kind, and to buy economically, it is necessary to personally select, and even then much experience is required, but it can only be gained by such personal selection. There are so many things to consider in the choice of a good skin: its size, its evenness of colour, grain, and texture, its freedom from flaws, and often not the least difficulty is that of matching the cover of a book previously bound. Prices vary considerably, say from 144/- to 200/- per dozen for good Cape levants, but there are few binders who can buy such skins by the dozen; they want one or two skins of one colour and one or two of another colour, and consequently have to pay more in proportion per skin for their choice of a limited number. To get good skins they must endeavour to select themselves; if that is impossible, they should send to the best leather sellers the size of the covers they want, and order such skins as will best suit the size of cover desired. A good skin of Cape levant, even in grain and texture, and even in colour, that will cut three octavo covers without flaws, will cost about from 15/- to 18/-; this will leave some odd pieces to be used for half-bound work. A similar sized skin with more flaws in it might be bought at, say, from 14/- to 16/- per skin, which would cut two octavo covers and two smaller ones, or by other variations to at least produce a cover measurement equal, or exceeding, that of the clear surface of the three octavo covers, and therefore more profitable. The price depends upon the amount of surface without flaw—the larger the amount of surface without flaw the higher the price rises; so that you must learn to estimate the worth of a skin by its productivity on the work you have in hand, and to which it will cut.

Light shades of colour are generally dearer than darker ones, and the newer fancy colours are dearest, such as Yasbel, old rose, terra cotta, café-au-lait, etc., such as evanescent; perhaps worst of all is goblin blue.

Now let us look at the paring. Morocco covers should be pared all over in the case of small and thin work, if the skill of the workman permits it, if not, it is best to order the skins to be shaved when buying, which will be done by the leather seller, or his agent, at about the cost of two shillings per skin.

For other whole-bound morocco work, the cover should first be marked around to the size of the book it is intended for, thus: first see that your boards are set square and even with the edges of the book; then, laying the cover out lengthwise from you, place the book upon it, leaving a fair margin all round the board, and mark with a folding stick deeply, upon the cover close to the board, taking care not to go beyond the corners of the board at the grooves; next draw the cover over tightly without lifting the position of the book, and turn book and cover over to the other side, when repeat the marking. From the points where the marking ends lay a straight-edge and draw other lines corresponding with the grooves at the back. Pare the leather down from the marked lines to the barest film on the outer edges of the cover, and then run your knife round the edges to take off any roughness remaining, but be careful not to run in. For the back, first, commencing at the marked lines and working towards the centre of the back, pare deeply a sort of gutter, from which, on either hand, still towards the centre, pare equally all over; or you may use a piece of clockmaker's brush, composed of short brass wire to be bought in lengths, which will scrub the surface off. This must be tackled on a stout piece of wood, when it will be found a most effective rasp of leather, and only needs a sharp knife to finally clear off the fluffiness of the cover; you will by these means get a nice thin back, but it should never be at the expense of a thick side, or you will have a ridge on the edge of the groove as if you had too thick a board.

In paring the edges of the turn-in do not wet the leather; no matter how hard or horned it may be, by means of a little coaxing it will be amenable to the knife. Take the cover in your left hand, and holding the knife in your right, draw the cover over the edge of the knife to give it a scrape, a few times if necessary, thus loosening the harder parts and closer pores, and making it softer for paring.

For very large work it is not necessary to pare round the edges, but only at the turn-in part of the back, and at the corners where mitred at the turn-in, because such work should be trimmed out and filled in.

For ordinary thin morocco covers, too, it is not necessary to pare so deeply; they may be simply edged, except at the part of the back to be turned in, which must be fully pared to make a neat job. The same for calf and goatskins, Persian and paste-grain.

For half-bound work it is frequently necessary to pare the whole of the covers both back and sides, because with thick leather, for good work, it would be perfectly impossible to raise the sides up to the level of the leather with anything but an elaborate system of filling in, which would take quite as long or even longer, than paring.

[To be continued.]
different classes of work on which bids could be taken," and that gives no clue; so every binder desiring to compete must offer to do the work upon a price so much more or so much less per cent. than the prices given, en bloc. No single price can be altered, yet any practical binder would say some are fat jobs, others decidedly low priced; and the difficulty is to know how the numbers run on the two extremes. When the tenders are all presented, the practice is that the permanent official recommends the lowest, which is accepted irrespective of what ruin awaits the unfortunate or rash competitor.

To accept the lowest sounds all right in theory, but it may be utterly wrong in practice; and whether it is or is not depends upon how the schedule intended for the guidance of intending competitors is made up. It should be based upon the current conditions of the material and labour markets. It should be made up by a competent and practical binder. It should be made anew at every fresh invitation to tender. Are any of these should-be’s observed? The fact is, the Stationery Office does not know exactly how their own schedule has been made up. Their own officials are none too competent as practical workmen, in spite of the fuss about Civil Service Examinations; and having got there, it is wonderful how they lose their sense of smell and sight, not to speak of current market prices. What alterations of schedule prices have been made in order to conform to the spirit and intention of the resolution of the House of Commons, February, 1891, after all the evidence laid before them of incompetent labour and other evasions of that resolution? Practically none. It is within the power of the Office—nay, it is the duty of the Office—to see that that schedule is based upon the price of materials and the price of labour, and it should be a guidance for them that no tender is fair which is priced so low that the conditions imposed in the contracts could not be carried out. The Government must not be allowed to shelter itself behind those officials and then to place itself in front and shelter the officials; that game is played out. The Government must set its face against any temptation to commercial dishonesty; the ruin of a Government contractor, whether by his own folly or misrepresentation, is an injury to the nation, and the Government cannot shirk the responsibility by saying: “It is no concern of ours if the contractor is ruined by the bargain he makes.” It must be clearly understood that the first effect of accepting tenders which are priced too low for the due observance of the conditions imposed—assuming labour is protected—will be that materials and workmanship are alike impaired, and the door opened to extensive bribery to secure the passing of inferior work.

As things stand at present, firms which might tender will have nothing to do with these contracts; they turn up their noses at them with disgust, and refuse to risk their reputation on such work. On the other hand, reputable provincial firms, where the recognised wages are lower than in London, are debarred from tendering because, forsooth, they have no London office; and yet London firms, assumed to be paid London prices, may send any quantities of their work to the provinces under the most unfair conditions of labour. If the work may be done in the country, country employers should demand their share of it; if not, then let it be done in the place for which the price is allowed.

This whole question needs strong hands and united action to pull it out of the rut into which it has fallen; not those of labour organisations alone, with whose action we have no cause for complaint, but also of employers' organisations. Unfortunately, the Printing and Allied Trades Association, which might do much good in this direction, is eaten up with its zeal to swear everything is right which the few monopolists say who control it, and until they awaken from their costly delusion they will be unable to get any of the work which might justly fall to their share, and which they ought rather to be fighting for fair opportunity to obtain. Permanent officials will not help them, it does not pay; they neither like trouble nor inquiries, but it should be the business of associations of both employers and workmen to get this question sifted and placed upon equitable terms for both.

This month Messrs. Kegan Paul & Co. will publish “Early Editions; a Biographical Survey of the Works of some Popular Modern Authors,” by Mr. J. H. Slater, editor of Book Prices Current. The work specifies the works of some modern authors, which, by reason of their scarcity, are the more sought after by collectors; these are described and priced, and warnings are given as to spurious editions. A large paper edition of 150 copies, numbered and signed, will also be issued to subscribers.

Besides the three editions of “The Best Books,” a fourth is now in the press, and this month Mr. W. Swan Sonnenschein will issue the first supplement, of about 1,000 pages, quarto, bringing the work up to date not only in English, but in American and colonial literature. The supplement will appear simultaneously in England and America.

**On Forwarding.**

If you have not already capped up those books which have gilt edges, you should certainly do so before covering, thus: take a sheet of brown paper or stout wrapper paper and lay it under the book close up to the grooves, leaving a wide margin at ends and foredge. Allowing for a distance from the foredge equal to the thickness of the book, cut your paper in from both head and tail parallel to the foredge, and up to the lines of the head and tail; then cut the foredge turn-in, in line slightly within the head and tail down to the previous cuts, thus cutting out a square piece of paper at each corner; fold over the end margins on to the book, tuck the extra width over the edges, draw up the foredge margin, and with a couple of dabs of glue administered by the finger, fasten down on to the end pieces neatly and close.

In covering, cleanliness is of the greatest importance; see that your paste is clean and free from grit and lumps, that your board is clean, and lastly
that you paste your cover without smearing the surface. Handle your covers as little as possible, and do not rely upon the washing up to remove matter which should not be allowed to touch the surface of the leather.

The process of covering is much the same, whichever material is used; we will assume a morocco cover. Morocco should be slightly bumped up the back and around the turn-in, on the fleshy side, before pasting. Afterwards, fold lightly in half, or lay two together to soak for awhile. When the damp has penetrated sufficiently to make the leather workable, pick out the best side for the front of the book, open the cover, and lay that side on a clean board—baize is better—towards you. Next take the book, and with the finger dab a little piece of paste over the slips and give a hard rub down with the folding stick to flatten out and soften the slips; see that the squares are properly set, each end in due proportion, and then lay the book front side down on the end of the cover nearest to you. With your left hand on the top board, draw over the cover with your right hand, letting it lie on your left while you draw over tightly on to the back, not by pulling at the edges and so stretching the cover, but with the palm of your right hand working on the groove and gently stretching the back only till it is drawn on tightly, then let the cover lie on the side without pulling or pressing your fingers into it. Then turn the book over, raise the front side of the cover, and with the palm of the hand on the groove again draw on the back.

Now take the book in your left hand, lay the under board on a paring stone and pare off the corners with a sharp knife, so that the leather will just meet when turned-in. If the book has thick bevelled boards, the inclination of your knife will be too abrupt, and you must pass the blade under the board to pare off with a more gentle slope; but with ordinary work, the thickness of the board will just give the right bevel to the leather. Paste with your finger the pared parts, and are then ready to turn-in.

Tear a piece of paper just large enough to slip on to the leather where it comes to the ends of the book, or when you stand it up it may soil the exposed part of the edges, dab that on the pasted leather and stand the book on end on your board, or the stone, back from you, with an outward sweeping motion, which will push the leather under the edges of the boards, then, with your thumbs close into the joints, push the boards outward and draw over the leather down into the inside of the split hollow, and along the edges of the boards. Turn over the book and repeat, in each instance leaving the leather rather full at the headbands. Next, with the thumb nail, nick at the headbands. Now take a three- or five-ply thread, according to the size of the book, and tie it up along the joint, placing the thread in the little nicks made for its reception; tie tightly, shift the knot so that it lies midway between the boards at either end, and thus out of the way, and tuck the ends inside the board. Next, take the back of the book in your left hand, holding it under your arm, with your fingers round the head for support, and flatten over the leather at the head so that it forms a flat pleat on the headband of the same width as the thickness of the boards. If this pleat or cap is broader than the boards are thick, the effect is heavy and clumsy; so that great care must be exercised in turning in—while enough leather is left to form the head, there is not too much left to make it clumsy. Then, with the point of the folder, push the leather well into the grooves behind the tie-up, so that it may adhere thoroughly and open easily.

Next, nip up the bands sharply with a pair of band nippers, taking care not to stain the leather, or to dig the points in. Some binders prefer band sticks having grooves cut along the edges to fit various-sized bands, but, in expert hands, the nippers are best for any and every class of work. It hardly seems necessary to say that the bands should be perfectly straight and parallel one with another, yet it is a sorry fact that scarcely one forwarder out of a dozen does set his bands straight. They all think they do, but on the great majority of books the bands are running either slightly up or slightly down, a fault of vision very difficult to cure.

To set the heads, stand the book on end on the stone or a hard backing board, and, with the point of the folding stick, catch hold of the extreme end of the leather and draw it down close to the stone, working the flat part of the stick closely round the head until the edge is made as sharp as possible, the pressure on the stone preserving the flatness of the part drawn over the headband. In bevelled board work, the head may be set according to fancy, and it is usual to give a much broader setting than for flat boarded work.

After the covering is completed, put a fence or guard of thin board or stout wrapper inside the boards, to prevent the damp striking into the book, and then wash the cover all over with clean water; if red morocco, the water had better be warm. Red morocco is always difficult to work, and unless care is used it will show up a number of small black spots; warm water will, however, usually prevent this. The books must then be stood up on the foredge to dry.

If best work, after standing for a few minutes, put thick pads of paper on the sides up to the grooves and round the foredge, or place the book in tying-up boards having grooves in which the boards will stand, and tie up each side of the bands, and so on right round the book, seeing that the bands are perfectly straight, and leave the book so tied up until perfectly dry.

[To be continued.]
Before covering, Russia should be slightly damped and smoothed out on a nice flat stone or covering board with a folding stick, or it may be rolled out with a rolling-pin to take out creases and wrinkles. It is a very easy leather to handle, and only requires to be kept clean. After covering, wash evenly all over with a sponge; be careful, however, not to use the same sponge upon two different colours without first thoroughly cleansing it, and especially beware of washing up calf with the sponge used for Russia, as the dyes used in Russia come off very easily and will stain other work. When covered, pile the books up back and foredge, with a piece of paper between the different colours.

Calf should be lightly and evenly washed over after covering, when the books should be piled up back and foredge, with pieces of good smooth brown paper between them. Do not use white, especially for light colours, as the strong chlorides used in bleaching wood pulp may affect the lighter colours of calf when wet, or the minute particles of metal which find their way into paper pulp while in the mill will often leave stains for which you may be puzzled to account, and still more puzzled to extract. It may seem strange, but these defects are very rarely found in good brown paper.

For tree calf work, the boards should not be lined inside; and after covering, the books should be stood up on end to dry, when the boards will warp outwardly and assist the marbler.

Vellum books are brought on much the same as ordinary modern work, or they may have what are called French joints, when they must be brought on as for account-book binding, full particulars of which may be found in the series of articles we published in the last volume on “Stationery and Vellum Binding.” Assuming ordinary modern work, the first point to observe is that the nicks cut in the edges of the boards at the grooves must be larger and deeper than for leather work. The covers must be lined with plain printing paper, pasted thoroughly and placed on the vellum, but in some cases the vellum is so hard and full of lime that it is best to paste the vellum itself. When lined, the covers should be laid in clean paper between boards until the linings have thoroughly adhered to the covers and set, but still are not dry; while still damp enough to be pliable, covering should be proceeded with. In drawing on, stretch the vellum as little as possible, or the contraction in drying will be greater than the resistance of the boards, and cause them to curl upwards. A slight nip in the press, between pieces of clean paper, will materially aid in making the covers lie flat and adhere; but great care must be taken, or if the pressure is too severe the vellum will be stained or blackened.

For all artificially grained leathers glue should be used in covering, in order to preserve the grain as fully as possible.

Sheep—the thin-skivered variety—is best treated with glue. To get the fine smooth appearance which closely resembles calf, a system of “plating” is resorted to, which may be performed in the blocking press or any other press. If in the blocking press, which is most expeditious where large numbers are required, a special plate perfectly smooth and even must be made, which may be screwed on in the usual way. Then place a few sheets of paper on a millboard, a little larger than the size of the covers, and secure them to the board so that all may be popped on to the bed under the plate at once. Now lay a cover on the sheets of paper and place over it another piece of paper—stout magazine wrapper is best as some papers show their texture on the cover; put all into the press and give a heavy pull over. Of course the press must be cold. For a few covers, place between stout magazine wrapper, and then between japanned iron plates or tinned boards, and give them a nip in the standing press; for small covers an ordinary copying press will do. The appearance of sheep is improved more than one hundred per cent. by this means.

Morocco for polished morocco work may be treated in the same manner, but the blocking press may be slightly heated, and no paper is required over the surface of the leather, as the morocco will be glazed, whereas the sheep is required to be dull.

It is usual to cover books towards the close of the day, and the first thing next morning is to open them up. To open up, take a folder in the right hand, open the front board over to the left and force it right back, holding the folder firmly down close up into the groove; then if the board is found to be not quite square and flush with the edge of the groove, either push it forward or back, after damping the turn-in. Also remove any specks of paper which may have adhered. Repeat on the other side and lay out, piling book upon book back and foredge, with the boards wide open; let them lie thus for an hour or so. This will give freedom in opening or closing when dry.

Next, open the books; not in the centre as we have seen some foolish people do, to the great danger of breaking the backs, but standing the book on its back, open a few leaves at each end, supporting the bulk of the volume with your thumbs, then a few more, and, smoothing out flat, thus proceed to the centre of the volume. Next, stand the book on end, back towards you, and, with both thumbs pressed into the boards close up to the grooves, open the book and see that the hollows are free and open.

Then sharpen up the bands by rubbing them up with a band stick—not the grooved variety, but a flat piece of rosewood or some smooth hard wood. If there is any irregularity in their formation or straightness, it may be now remedied—this is the final chance of remedying it. With a little care, and patiently easing on one side with heavier pressure on the other, the crooked band may be made straight and the book ready to hand over to the finisher.
In half-bound work of the best class there is little difficulty in determining the exact proportion of leather which should appear on the sides of a book of any size, apart from the individual taste of the owner, which must at times be taken into consideration. The question is very properly usually left to the binder, but sometimes the customer signifies his preference for a narrower back than is usual, or vice-versa. For best work the back should extend over the sides, beyond the edges of the grooves to one-third of the width of the sides, and the corners should be of the same width, measuring from the point of the angle across the centre of the corner. In ordinary work of course the amount of leather to be used must depend upon the price allowed for the job, and if that price is finely cut, the binder must cut his leather to suit it. In any case, however, whatever may be the width fixed upon for the back, the same proportion should be preserved in the corners. There may arise the question of taste as to the proportion of leather to side, but none can arise upon the proportion of corner to back, yet strange to say, we constantly find the evidence of a most cheeseparing economy in the size of the corners, a point where there is the least cause for saving expense. This is accounted for usually by a false notion of time saving rather than leather saving, a haphazard method of cutting out corners by guesswork, resulting in differing sizes and shapes, which are still further removed from uniformity by careless paring, so that when they are put on the book they must all be reduced to the size of the smallest, when they present a very mean and cheap appearance. Always cut your corners out to a sizeboard of correct shape. The extra time thus spent will be saved on the paring and trimming off; there will be no need to hesitate and twiddle the corner about to pare it into shape, or to look over a lot to find the smallest to trim off to. It is the safest principle in the long run, that the most exact way is the shortest way, in all things pertaining to bookbinding, and certainly leads to the neatest results.

The Haslitt corner differs from others in half-bound work in fitting the board squarely instead of in the form of a simple triangle. It is now very rarely employed, but might be revived with profit. The corners are cut out in square pieces and pared all over as thinly as possible; the back must also be pared down in the same manner, so that no ridge will be left under the thin paper used for the sides. When the corners have been put on, and have dried, mark a line with the compasses round two sides of the corner, parallel with the board, say about one inch in from the edge of the board for a demy octavo, and cut away the surplus leather, leaving a margin exactly parallel with the angle of the board. This is usually gold tooled with a similar pattern to that on the back, and generally in Roger Payne style. As a rule, Cobb’s brown or green paper is used for the sides, and the cutting out and siding, which must be done very exactly, forms a delicate and difficult operation; but we see no reason why this same style of corner might not be allied to other and less tender papers, that do not present such difficulty in handling.

In many of the larger shops it is the custom to give the siding and pasting down to assistant finishers, who also put on the corners, and that after the finisher has done his share of the work. Whoever does the covering, however, it is best to defer it until after the book has been to the finisher, as a great deal of chafing on the foreedges may thus be avoided. Even with scrupulous care, calf work, and especially blues or delicate colours, are likely to get rubbed on the foreedges, on which it is necessary sometimes to stand the books.

Quarter-bound library work has a narrow back, usually of morocco, no corners, and cloth sides which are brought up closely to the grooves, so that the join may be concealed under a line frame.

There are a great many common half and quarter-bound books which are done in case style, a miserable fraud which cannot be too severely condemned from the craftsman’s point of view. It is, however, a sacrifice to cheapness that we can only deplore. They are cut out of boards, the slips frayed out and stuck down on the papers before gluing up, or on the back when gluing up. They are smashed over in the backing machine, lined with mill, with a second lining of brown paper; the covers are made as cases with a strip of six-ounce strawboard laid in for the hollow, fitted to the book, and pasted down shut.

Velvet requires a great deal of care in order that the beauty of the pile may be preserved. The cover should be cut so that the pile will lay from the foreedge of the front board towards the back, and in covering the pile must only be rubbed the one way. First glue the back of the book and let that set until it is almost dry, but still tacky; lay the cover down on its face with the pile running outward from you, then glue the back again, set the squares and glue the front board with a moderately thick coat of glue, evenly laid on; lay it down on the cover and glue the back board, then draw the cover over with the clean right hand, upholping the cover with your left, until it is drawn tightly over the back. Let this set awhile before turning in, then carefully cut your corners so that the edges of the body of the material meet exactly, destroying as little of the pile as possible, as that is needed to cover the join. Glue round the inside of the board, and with your finger touch the velvet with glue around the corners, but not touching the pile, and at the turn-in of the back on one side; clip off as much of the pile at the turn-in of the back as you can with a sharp pair of scissors, and turn in; turn the book over and turn in the other end in the same way.
then the foredges. If the pile is at all affected by the
flop coming through and the pressure of the fingers,
hold the book over steam, brush the pile gently the
wrong way with a soft brush, and then smooth it down
again with the brush.

Silk and satin must first be lined with clean paper
very thinly glued and stuck on. The paper should be
cut exactly to the size of the book, and put upon the
silk quickly, before it has had time to stretch, when it
must be very gently rubbed down to make it adhere,
but without forcing the glue through the open texture
of the material. When dry, cover as for velvet,
giving the board for the turn-in but very slightly.

Pens, Ink, and Paper.

The following, from a recent issue of The Academy,
may be taken as representing the results of the
most recent investigation:—“As we learn from recent
discoveries, paper was in use among the people of
Egypt as far back as 2300 B.C., and not merely, as
Pliny thought, from the time of Alexander the Great.
The ancients, it appears, knew more about pens and
inks than they usually have credit for. The Greeks
made silver and other metallic pens, and Latin manus-
scripts show a great variety of inks—red, purple, green,
blue, silveri and gold. The great Florelle Bible, in the
British Museum, shows the skill of the penman in the
twelfth century in the use of this mode of decoration;
and in somewhat later times it was no unusual thing
for scribes to annotate their texts in coloured inks—
red, green, violet, blue—using each colour for a distinct
class of notes: historical, biographical, geographical,
etc. Scientific works are often made exceedingly
attractive by coloured diagrams; chronologies by
architectural arcades and ornamental panels.”

Mr. John T. Carrington, the editor of the new
series of Science Gossip, writes in the first number on
“Science at the Free Libraries”:—“A recent tour
through the metropolitan libraries, and those in some
of the larger midland counties’ towns, has shewn that,
while science is fairly represented by regular stock
books in most of them, these largely consist of such
picture books as ‘Lowe’s Beautiful Leaved Plants,’
the Rev. F. O. Morris’s works, Sir William Jardine’s
numerous volumes in his ‘Naturalists’ Library,’
Buffon’s works, and a long series of books chiefly out
of date. From an educational point of view the
majority of such books tend to delay rather than
advance in the onward march. In too many
cases the income of the library goes in the purchase
of fiction or general expenses, and the librarian
depends upon donations for the science section of his
catalogue, and must accept whatever comes to hand.”

MESSRS. E. S. Wigg & SON, wholesale and retail
stationers, bookbinders, etc., Adelaide, S. Australia,
have opened fine premises as a branch establishment
in Perth, Western Australia. The London office is
at 29 Ludgate-hill.

What, When, Who, etc.
The following nonsense lines by Mary Packard
Rollins appear in an American contemporary, Good Housekeeping, and may interest
our readers:—

Pray, what did T. Buchanan Read?
And what did E. A. Poe?
What volumes did Elizur Wright?
And where did E. P. Roe?
Is Thomas Hardy nowadays?
Is Rider Haggard pale?
Is Morn Savage? Oscar Wilde?
And Edward Everett Hale?
Was Laurence Sterne? was Hermann Grimm?
Was Edward Young? John Gay?
Jonathan Swift? and old John Bright?
And why was Thomas Gray?
Was John Brown? and is J. R. Green?
Chief Justice Taney quite?
Is William Black? R. D. Blackmore?
Mark Lemon? H. K. White?
Was Francis Bacon lean in streaks?
John Suckling veal? Pray,
Was Hogg much given to the pen?
Are Lamb’s Tales sold to-day?
Did Mary Mapes Dodge just in time?
Did C. D. Warner? How?
At what did Andrew Marvell so?
Does Edward Whymper now?
What goodies did Rose Terry Cooke?
Or Richard Boyle beside?
What gave the wicked Thomas Paine,
And made Mark Akenside?
Was Thomas Tickell rash at all?
Did Richard Steele. I ask?
Tell me, has George A. Sala suit?
Did William Ware a mask?
Does Henry Cabot Lodge at home?
John Horne Tooke what and when?
Is Gordon Cumming? Has G. W.
Cabled his friends again?

Composers liable to have their senses of discern-
ment and patience tried to the utmost by bad copy
will enjoy the following letter, and indeed, when one
receives an illegible letter from a correspondent,
instead of losing temper, and there and then writing
him a scathing reply, it is advisable to sit down at
leisure and concoct an epistle like this of Mr. T. B.
Aldrich to Professor E. S. Morse:—

My dear Mr. Morse,—It was very pleasant to
me to get a letter from you the other day. Perhaps I
should have found it pleasanter if I had been able to
decipher it; I don’t think I mastered anything beyond
the date (which I knew) and the signature (which I
guessed at). There’s a singular and perpetual charm
in a letter of yours—it never grows old, it never loses
its novelty. One can say to one’s self every morning,
“There’s that letter of Morse’s, I haven’t read it yet.
I think I’ll take another shy at it to-day, and maybe I
shall be able, in the course of a few years, to make out
what he means by those t’s that look like w’s, and those
i’s that haven’t any eyebrows.”

Other letters are read, and thrown away, and for-
gotten; but yours are kept for ever—unread. One of
them will last a reasonable man a lifetime.

Admirably yours, T. B. Aldrich.