Exigencies of Sheet Folding.

WHATEVER advantage, if any, inventive Americans may have over their slower paced yet scarcely less mathematical fellow craftsmen of France is not demonstrated in modern bookbinding. Fully appreciating the difficulties which beset and perplex operatives engaged in the important preparatory branches of volume manufacture, M. Bosquet is desirably explicit in his "Art du Relieur" as to the best methods of avoiding or surmounting each obstacle. He deprecates the irregular folding of book sheets, and places the main causes thereof so plainly before his readers that an abridgment of his special inquisition will be found edifying. Such an epitome of translation is now presented in these columns for purposes of instruction and practical solution.

The consequences of uneven folding are made the text upon which Bosquet discourses. He says that when a book requires edge trimming all defects in its construction become apparent. The after carefulness and artistic touches of a skilled binder fail to remove or even mask the primal blemishes. The best work of a competent finisher is marred, and its effect destroyed, by improper folding of book sheets. It is of the utmost importance, then, that such initial labour should be done with precision, so as to secure exact marginal conformation.

This would be accomplished without serious trouble if the printing of the sheets was always correctly done. It frequently happens, however, that carelessness in presswork, resulting in poor register, causes the folder to look for guide marks, which sometimes are extremely difficult to recognise, and under these circumstances, having to do all the reference work herself, it is only natural that irregularities should occur. Folding would, therefore, be an easy and satisfying operation if printing was invariably well done, and particularly would that part of bookmaking be facilitated if uniform sheets were handled by each girl.

As soon as the guide mark is distinguished, and this must be found after the first sheet is lifted, the folder is not required to look for it in the successive sheets; hence follows an automatic regularity in forming the the folds and confidence in the work, so that it can be done speedily. If a lot of 500 books, each composed of twenty sheets, is distributed among ten girls, each operative having two sheets, it will reduce the number of guide marks to two for every 1,000 sheets.

When the volumes are gathered by copy this is not so. The book having twenty sheets there are then as many guide marks to look for; twenty per copy and the same labour to be repeated before sufficient handling of this particular class of work give to the operative a mechanical ability great enough to enable her to fold the sheets without the aid of marks. It may be thereby judged, if the folder is not possessed of consummate skill, how much time she loses, and the variable quality of her work.

To fold printed sheets of paper in two, four, or in eight folds seems at first glance very easy labour, but although theoretically this operation appears to be simple, it is, as a matter of fact, far from being so. Notwithstanding that all of the irregularities in making book margins are usually charged to the incompetence or carelessness of the work girls, there are often other causes of these defects which are worth investigating.

The most simple and rational way of folding printed sheets in two equal divisions, according to the book imposition (although it may be incompatible with rapid work), is to lift each sheet, fold it, and match it through its transparence when held to the light. Then catching the two divisions of the sheet with her left hand, the operative lays it on the table in front of her and scores over the folds heavily with the flat blade or knife-shaped tool which she holds in her right hand.

Matching by transparence helps her to immediately detect improper register or inequalities in presswork and errors of imposition. All right and left hand pages—that is, obverse and reverse—should perfectly coincide, so that when the printed sheet is lifted, and the numerals at the top of pages, or the body of the page itself, taken as a guide, it will be easy to fold the sheet properly whether it is in folio, quarto, or octavo. This is one of the essential rules of the art of printing, and machinery was established and sagaciously improved to meet the special requirements of page conforming.

As a matter of fact, the iron frames or chases which are used in putting up book forms, with either metal or wood furniture, bevels, &c., are designed to isolate the pages and keep them separated, according to the requirements of the work, as determined by the greater or less space of page margin regulated by the size of sheet which is to be printed, and the pages are all so perfectly set and their proportions so exact that irregularity in the work is never expected from imposition. That which appears complete in theory is, however, far from always being so in practice.

An example in point is furnished when a printing form of eight pages is to be imposed. The iron frame being laid flat on the marble, the compositor who is making up places the pages in their proper order and indicates the margins by means of furniture prepared especially for that part of the work, and the gauge of which is precisely the same as that of the body of the printing types. He has to keep a record of the calibres of the spaces of the long cross, the margin of the cross and of the bevels, &c., which are used in putting up the first form, so as to be able to duplicate them whenever the same book is to be reprinted. This is done in order to secure coincidence of right and left hand pages. Although such are the essential conditions for a correct imposition, absolute as the rule is, it cannot always be carried out in practice.

Margin spaces, and even crosses, have been used in furnishing the reverse of a printed sheet which were of a different calibre from those on its obverse. In other cases, margin spaces of 1·33861 inch had been placed between pages 1 and 16, and of 1·25987 inch between pages 4 and 13; again, of 1·33861 inch between pages 5 and 12, and 1·25987 inch between pages 8 and 9.

In addition to this irregularity in the width of the margins, a certain amount of torsion having been brought upon the book form in press, or the form not being exactly level, the inevitable result was that, notwithstanding the printed sheet was afterwards very carefully folded, the page distant at least ·15148 of an inch at the head of the book could be fixed only at a distance of ·30296, or a fraction more at the bottom. How, under such circumstances, can it be expected that binders, no matter if they are ever so competent, will produce good jobs? And if this cannot be expected from first-class operatives, it goes without question that nothing except a botched piece of work will be turned out by the indifferent binder, who may handle sheets already carelessly treated in the imposition, and folded as they best could be.

There are cases of frequent occurrence where sheets of the same signature are not evenly printed either on recto or verso. One side of a sheet may be properly arranged at one end and yet be wrong at the opposite or corresponding margin, the two not being even. Most of the cheap or hurriedly made educational books are imposed in this defective manner.

Reform in sheet folding can be effected by printing guide marks on the sheets. This would not only facilitate distribution but would also be found convenient in making up books, and if carefully observed would perfect this kind of work. Two small lines crossed might be placed at the ends of the form, imposed in such manner that when an octavo is to be folded, the girl having placed the sheets in front of her, the signature below at her left hand, she would have the pages of book No. 1 before her in the following order, 2—15—14—3; so, in folding the sheets from right to left, she could drop 3 on 2, and find as guide marks, in forming her first fold, two crosses at the ends or centres of the head margins.

The first fold completed, two crosses placed at the ends of the centre of the sheet would be visible and divided as shown ⊣ Without changing the position of the sheet the girl could fold it from top to bottom by dropping 12 on 13 and 5 on 4. The two halves ⊣ joined at the bottom of the book should be used as a guide mark for making this fold heavier in treating it to a horizontal scoring.

At this juncture two half crosses T will show at the head, and should afford an exact guide mark for dropping 9 on 8, and thus forming the last fold of the sheet.

No attention would require to be paid to the figures placed at the heads of the pages, as these (for instance, dictionaries printed in double column) are printed in the margin centre, or are not found at all on blank pages.

These crosses, which after each fold would be divided in two, would show in one direction or another, as the case might be, and prove correctness of the folding. Moreover, and in a great measure this would do away with the drawback which results from gathering by copy before folding. In conclusion, M. Bosquet remarks that such is the *modus operandi* of some French publishers who have adopted it, with the view of ascertaining the exact number of copies in any edition of a work.—*American Bookmaker.*

Our Prize Competitions.

THE Twentieth Prize of Twenty Shillings for the best design of interlaced strap work, suitable for inlaying, has been awarded to Mr. G. F. Lovatt, 3 Handel-street, Nottingham, working for Messrs. G. & J. Abbot, 71 Upper Parliament-street, Nottingham, for No. 1, and a cheque for that amount has been forwarded.

HIGHLY COMMENDED:—No. 2, by "Argus," London; No. 3, by William Rhodes, Brighton; No. 4, by A. Bean, York.

WORTHY OF MENTION:—"C."; D. J. Thomson; "J.W.F."; Walter Slim; John Shaw; and a good design by "Biblos," which is spoiled in the corners by a jumble of scroll work.

COMPETITION No. 22.

WE offer a Prize of Twenty Shillings for the best design for a side, size 7½ × 4¾-in., worked out in black, and made up of rolls and fillets, with the exception of *one tool only*.

RULES.

1. All designs must arrive on or before September 30th. The award will be made in the October 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 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 honourable 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.

IN some parts of Germany bookbinders perform the work of hanging wall paper, considering it a part of their business. In their behalf the *Allgemeiner Anzeiger für Buchbinderein* published a paper recently on the art of decorating walls with paper and leather.